A Gameful Change
How Gamification Can Be Used as a Communication Tool in Change Management

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Abstract

Nowadays organisations have to relate and adapt to a more digital reality, however, approximately 70 % of all digital transformation projects fail.

Gamification is constructed by applying game elements to non-game context, in order to create motivational affordance that signals gamefulness. Game elements can be components, mechanics, dynamics and emotion, i.e., visual elements and behind the scenes rules and structures.

The aim of this master’s thesis is to explore how gamification, from a strategic communication perspective, can be used within organisations to support change processes linked to digitalisation and IT-systems use.

To understand how gamification can be used in a change process, change communication, sensemaking, and human psychology theories are combined in an interdisciplinary theoretical framework.

To explore the research question a qualitative approach has been chosen. The empirical data has been gathered through semi structured interviews with gamification experts and representatives from two case organisations.

The results show that gamification can be used as a strategic communication tool in a change process by involving the employee in an ongoing dialog based on interaction, that helps them understand, accept and contribute to the intended transformation. By having an enabling and enhancing effect, gamification makes the employee’s use of digital tools more enjoyable and stimulating, and thereby supports a sociotechnical change process.

The conclusion implies that gamification can be used to engage and motivate employees in a new way, that makes their roles and responsibilities more fun and interesting. Something that is becoming increasingly important to organisations in the struggle to attract and retain young professionals. Gamification can help organisations adapt to a more digitalised way of operation that includes the employees in an ongoing interaction, adapted to their needs and drivers.

Keywords: gamification, gameful, gamefulness, digital transformation, change management, communication, sensemaking, motivation, engagement.
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1. Introduction

The environment organisations exist in, our global society, is becoming more and more complex and is in a constant state of change. Today, issues that did not exist some decades ago, can be the very thing that threatens organisation’s existence (Miller, 2009). Therefore, most organisations are faced with situations that impact them in a way that disrupts their ordinary state. This can be caused by external or internal forces such as the addition of new competitors, revisions in laws and regulations, or changes in the social economic conditions. These events put pressure on organisations to adapt to new conditions and to transform in order to handle the external or internal pressure and avoid implosion. Moreover, the members of the organisation need to find a new common ground, a way to act as one based on new circumstances. When faced with this type of disruption organisational leaders need to react, identify the threat, and plan for what types of actions need to be taken.

In recent years, digital transformation has been a key aspect for many organisations to relate and adapt to. Westerman, Bonnet and McAfee (2014) argues that the digital development will increase exponentially and all organisations need to adjust to the new reality to stay alive. New digital innovations have the power to revolutionise the way society perceives and acts. But for that to happen people and organisations need to adopt new technology and way of working. Moving from an analogue and manual way of operation to a digital has been shown to generate gains in both efficiency and productivity if managed right. Most often a digital transformation involves implementing or adapting some type of IT-system or digital tool that changes the operational processes in the organisation. The transformation impacts the process, routines, structures, strategies, etcetera that coordinates the organisations operations and the actors that drive, execute, and make decisions in the processes.

1.1 Background

The way in which organisations are structured is changing, primarily in the western world, to help them adapt to the new digital reality. Organisations are becoming more democratic with less strict hierarchies, more informal forms of communication and interaction. Employees’ engagement and satisfaction are perceived as important factors of success. These aspects are imperative in the digital transformation context since they correlate to the organisations digital maturity, i.e., how well the organisation can adapt to a more digital context with operational excellence (Dymek & Zackariasson, 2016).

Digital technology is also enabling new ways to motivate employees that can yield positive results by offering intangible incentives based on, e.g., instant recognition and feedback (Westerman, Bonnet & McAfee, 2014). Gamification can be seen as a result of this transformation. The gamification concept can be summarised as a method where elements that normally are associated with games are applied to non-game context (a more detailed discussion
of the definition is presented in chapter 2). The proposed benefits of these game elements, which are meant to entertain and intrigue, is that they can help organisations to use the appeal of fun and enjoyment associated with games for the immersion of employees in working or learning experiences (Klevers, Sailer & Günthner, 2016). Gamification has gained popularity based on its proclaimed ability to engage and motivate (Deterding et al., 2011; Deterding, 2012; Hamari, 2013; Hamari, Koivisto & Sarsa, 2014; Landers, 2014; Hassan, 2016).

It originates from a pursuit of new ways to develop IT-systems and digital tools that match the younger generations frame of reference (Smith, 2011). Younger generations, that have grown up with a higher level of digital maturity due to the exponential development of digital technology, are increasingly becoming a substantial part of the workforce within organisations. Organisational leaders are faced with challenges relating to new generations expectations of their roles and responsibilities. This means that organisations need to find new ways to help the younger generations enjoy and excel in their work.

The concept has been stated to have a particular effect on younger generations that have a high digital maturity and spend a lot of time playing games (Smith, 2011). Games have a way of keeping the user focused and entertained during the interaction with the IT-system. It is these effects that developers and implementers of gamification are seeking to transfer into a non-game context.

1.2 Problem Statement

Organisations that are not able to handle the digital transformation are predicted to fail in the future. There are many perspectives and methods that provide input on how the digital transformation should be carried out. Nonetheless, approximately 70 % of all IT-enabled change projects fail (Iveroth & Hallencruitz, 2016). The most common mistake is that the main focus is on the technology development. The leaders of the organisations forget the people aspects of the change, that a new digital tool is something that often involves human activities just as much as IT and technology. The focus is on deploying the new IT-system rather than adopting the way different actors interact (Westerman, Bonnet & McAfee, 2014). The difference in approach can be significant. The latter implies that the change leaders need to focus on influencing the organisational members, most often the employees, to accept and understand the reason behind the change, why the change needs to happen, and why now.

These aspects infer that organisations need to find new approaches to accomplishing digital transformation in order to be successful as well as methods that encourage employees to adjust their frame of reference in relation to new digital tools and IT-systems that they interactive with. The approach needs to be able to work in combination with the organisations strategic communication to enable understanding and engagement among the employees.

The gamification concept, has been gaining ground as a new approach based on the notion that it can help organisations foster motivation, engagement, learning, or problem solving.
(Kapp, 2012). If applied to internal change processes, gamification impacts the employee’s user experience connected to IT-systems and digital tools. This could be employed to convey messages that influence motivation, attitude, and behaviour. Gamification can, based on this notion, be seen as a conceivable tool in an organisation’s digital transformation. However, gamification as a concept has been criticised for potentially being a manipulation tool (Bogost, 2011; 2014). It is, therefore, important to study the use of gamification in change processes, to see how it can be applied in a way that is not controlling or manipulating.

From a strategic communication perspective, gamification offers a new approach on how communication can be integrated in an organisational change setting. There is little research on the communicative aspects of gamification and how the concept enables a dialogue amongst involved parties. This can be seen as a gap that is in need of input to make possible a greater understanding of how to best utilise gamification as a communication tool.

Furthermore, it has been predicted that as much as 80% of all gamification projects fail to deliver on sought objectives (Gartner, 2012). It is, therefore, vital that how the concept is applied is further researched and that best practice knowledge is continually collected to build on the overall knowledge of the concept. Gamification has been a research area, within the human-computer interaction field, since approximately 2010. It is a concept that has been questioned if having any real bearing as a change enabling tool. Research studies have shown that gamification does have an impact on user experience. However, there are still many areas that need further exploration to enable a full understanding of how gamification can be applied.

Lastly, Nacke and Deterding (2017) argue that research within the gamification field has until recently focused on why gamification should be used and what the concept infers. Now, however, there has been a shift in the research where more focus is on how gamification should be applied and when gamification should be used. Based on this development there is a need for more interdisciplinary perspectives on gamification to gain a broader scope and increased understanding of other research areas impact on gamification processes.

1.3 Purpose

The aim of this master’s thesis is to explore how gamification, from a strategic communication perspective, can be used within organisations to create change linked to digitalisation and IT-systems use, based on the communication processes in the IT-system and with the intended users in the organisational context. The main focus for the study is gamification as a communication tool that enables change in employee’s motivation, attitudes and/or behaviour.

A qualitative empirical study will be performed to explore how gamification can be used as a tool in relations to a digital transformation. This will be done through interviews with gamification experts and two case organisations that is in the process of implementing gamification.
1.4 Research Question

How can gamification be used as a strategic communication tool in connection with internal change management processes?

1.4.1 Sub Questions

To be able to answer the main research question, a number of sub questions have been generated. The questions are based on the notion that gamification is implemented in an organisation's IT-system in order to help the user interaction, and thereby, enable digital transformation.

Q1: How can gamification enable communicative messages to help drive change?
Q2: How can the communicative aspects of gamification be constructed?
Q3: What is the user’s role in the communicative aspects of gamification?

1.5 Delimitations

The following limitations have been outlined in the scope of this thesis based on time and resources. Gamification can be applied in both analogue and digital contexts. This thesis seeks to explore change methods connected to digital transformation and, therefore, only digital gamification will be studied. In some cases, a combination of analogue and digital gamification can be utilised. In these situations, the full concept is included.

For the empirical part of the thesis the focus will be on application of gamification on the Swedish market. Different regions’ and countries’ cultures and digital maturity impact how new methods are applied and incorporated. To limit the study to one market means that all data sources operate within in a similar cultural setting.

Since the focus is on the application of gamification within an organisation, external application within areas such as marketing will not be studied empirically. However, background, definitions, and theoretical aspects connected to external use of gamification may be applied when aspects are possible to transfer in-between the different contexts.

1.6 Disposition

Chapter 1 – An introduction to the problem background connected to digital change and strategic communication. It also includes the purpose of the thesis and states the main research question, followed by three sub questions that will help the researcher in the study.
Chapter 2 – Gamification is further explored and explained through review of different definitions, explanations of how game elements create a *gameful* experience, previous research, and ending with a critical review of the identified risks.

Chapter 3 – Theories of Communication are presented that will be the foundation for the later theoretical framework. Theories relating to strategic change communication, sensemaking and human psychology are covered.

Chapter 4 – A Theoretical Frame of Reference is presented based on a model that shows how gamification can work as an engine in the employees sensemaking process in relation to a change.

Chapter 5 – The Method explains the research approach and design. It covers how the empirical study has been performed and analysed.

Chapter 6 – The Results and Analysis presents the findings and the analysis based on the theoretical framework. It is based on a number of themes that emerged during the data processing phase.

Chapter 7 – The Concluding Discussion and Remarks connect the findings to the presented sub questions and research question in order to provide a final conclusion. It also discusses limitations of the study and suggests further research areas.
2. Gamification

In this chapter gamification as a concept will be explored and important aspects will be highlighted to explain how it can support an internal change process.

2.1 History of Gamification

The historical research perspective of gamification extends about a decade and a half back in time. However, to derive inspiration and ideas from games to other parts of the human-computer interaction field has a long history (Deterding, 2015). Gamification today can be seen as a result of this development, and aims to conceptualise how game elements can be applied to bring with it the aspects that engage and interest the user.

In the 1980's, the term gamification was not coined yet, but the first articles and books on how to use games in learning processes were published (Dale, 2014). The terminology used at this time was focused on gamifying systems, with the intent to transform non-game systems into games (Werbach & Hunter, 2012). In the 1990's computers began to be an integrated part of teaching, which led to the development of more advanced technical solutions on how games could be used in teaching (Dale, 2014).

The term gamification (in line with today’s concept) was first used in the early 2000's by Nick Pelling to describe his consulting services that helped companies create game-like interfaces and software in order to make the user experience more fun and enjoyable (Werbach & Hunter, 2012). In 2005, the first modern gamification software solution, Bunchball, was launched. It consisted of a platform where customers could gamify a process through the use of points, badges and leader boards (Dale, 2014).

The year 2010 is considered to be the breakthrough year for gamification. The concept gained attention and popularity, and became generally accepted as something that interaction designers made use of in interface design (Werbach & Hunter, 2012). *The DICE conference on gamification* was also held this year which further led to the concept receiving wider spread (Dale, 2014).

In 2011, gamification as a term and concept, began to be recognised as a new up and coming IT-trend. For instance, Oxford dictionary added the concept to its list of new words with the following explanation "The application of concepts and techniques from games to other areas of activity". IT-consulting firm Gartner added gamification as a concept to their Hype cycle, that tracks trends they predict will have the greatest impact on the IT industry. Deterding et al. (2011) create the first definition of what gamification is and means as part of the *CHI 2011 Workshop Gamification*. In 2012, Gartner predicted that as much as 70% of the largest global organisations will have implemented at least one gamification solution by 2014. (Gartner, 2012).
By 2011/2012 gamification was seen as a research field within human-computer interaction. More studies and empirical research was conducted to examine gamification and its areas of use. The concept also became more commonly used within the commercial field, consultants and firms began to offer gamification solutions to their customers as a part of interaction projects.

2.2 Gamification Definition

To explore gamification a definition is needed, to make the purpose and delimitations clear. There is no established definition within the research area and, therefore, it is important to understand different perspectives on what gamification refers to. The following section will present definitions from diverse perspectives and try to explain the commonalities and differences, ending with a discussion of the chosen definition and what it implies from a communication perspective.

According to Huotari and Hamari (2017) there are three peer-reviewed definitions of gamification. These are Deterding et al. from 2011, Huotari and Hamari’s own from 2012 and Werbach from 2014.

The most widely used definition (e.g., by Nicholson, 2012; Mekler et al, 2013; Mekler et al, 2015; Olsson, Mozelius & Collin, 2015; Lowman, 2016) comes from Deterding et al. (2011) and defines gamification as: "The use of game design elements in non-game contexts". The definition refers to design elements as the characteristic, constitutive components and features of games that combined are the foundation of games, but should not be confused with the conditions that create an entire game (Deterding et al., 2011). This definition has a human-computer interaction perspective on gamification, i.e., as a design method that can be applied in order to achieve a specific result. According to Werbach (2014) the definition provides no nuance on the user's role and puts all emphasis on game elements as a concept without an accepted explanation or definition of what they constitute. What is regarded as game elements in one game, can in a different context be completely disconnected from any association with games (Huotari & Hamari, 2012). Based on this definition, gamification can be seen as the application of game components such as points and badges rather than the more complex process of creating user experiences (Nicholson, 2012; Werbach 2014).

An alternative perspective highlights gamification based on a process approach, where focus is on the creation of gamification on more than the IT-system level. To see gamification as a process, can be linked to the objective to influence user's engagement, motivation, and behaviour. According to this perspective, the user is an important element of gamification.

Huotari and Hamari (2012) analyse gamification based on a service-marketing perspective and define it as: "A process of enhancing a service with affordances for graceful experiences in order to support user's overall value creation". This definition shifts focus away from the elements, techniques, etcetera and the focus is instead on the exchange that occurs in the pro-
cess between designer and user. The designer creates an interface based on affordance, that the user interacts with and interprets based on their own knowledge, experience, reference, etcetera. Gamification is, based on this, generated in the interaction between these two parties and the interface. However, if the designer does not manage to convey the correct message in the designed affordance the user will not have a gameful experience and the objectives are not met. Werbach (2014) argues that this definition is too vague since it does not include any specific game attributes or elements. Furthermore, Werbach argues that the designer’s intentions are not given enough weight in the creation of gamification.

Werbach (2014) develops his view by explaining that the most central aspect of the definition needs to be that gamification should be seen as a process: "The process of making activities more game-like". According to this definition, the focus is on the kind of experience that is intended for the user and the game elements that are used to achieve the right result. Game elements are seen as tools to be used to create the process and the user experience. The important part is how these elements are selected, used, implemented, and integrated. However, the definition is based on the idea that gamification is a process that involves the user, but it is vague regarding how the actual user experience is created (Sailer et al., 2016; Huotari & Hamari 2017). Furthermore, the definition is based on only one perspective of the process, the designers (Huotari & Hamari, 2017).

### 2.2.1 Definition from a Communication Perspective

Dynek and Zackariasson (2016) explain that the -ication suffix in gamification indicates that it is a form of process rather than a method to apply elements to IT-system design. This is based on the notion that the prefix is signalling that something is being transformed via various activities. This explanation is in line with a communication perspective, where the gamifying aspects should be seen as messages of meaning intended to impact another participant in the process. The most basic definition of communication states that there needs to be two or more parties partaking in a process that unfolds through an exchange of messages attempting to convey meaning to the other party.

Of the definitions that are based on the process perspective, Huotari and Hamari’s (2012) version is the one that provides most detail of the process and the different parties involved. It defines the objective of gamification, what aspects needs to be designed, for whom it is intended, and what needs to be achieved in order to be classified as gamification. According to this definition, the communicative aspects can be seen as different participants conveying and interpreting messages, sent through a gamified process. The definition describes that the intended value is to enhance a service for the user. When applying the definition on an internal change process, rather than service marketing, the term can be seen as the service an organisation acquires from an employee when hiring someone for their expertise and knowledge.
What none of the definitions include is feedback from the user to the designer, as a reaction of the user experience. This part of a gamification process is central from a communication perspective, since *two-way communication* goes in both directions.

### 2.2.2 Motivational Affordances

Huotari & Hamari (2012) definition of gamification is based on the idea that the designer uses affordance to indicate *gamefulness* to the user. The user’s subjective interpretation and emotional reaction is what determines if the intended outcome is created.

*Motivational affordance* combines the two aspects of affordance and motivation to show how gamification can create psychological and behavioural outcomes. The design is created based on motivational theories and the purpose of the intended user result. If the user’s experience matches the intended effect of the designed affordance the user will be motivated and more willing to adapt its behaviour accordingly which is mediated by the employee’s psychological reaction.

### 2.3 Different Types of Gamification

According to Kapp (2013) there are two types of gamification; *structural* and *content* focused. Content gamification is focused on adding game elements and game thinking to alter the IT-systems content to make it more game-like. It is based on using context or activities to engage the user. The structural approach infers that it is the surrounding structure that is gamified. The intention is to make the interaction with the system easier and more enjoyable but keeping the core intact. The structural perspective is in line with Huotari and Hamari’s (2012) definition and point of view on how gamification can be used. The authors specify two processes; one *core process* and one *enhancing process*. The core process is the main purpose of the system. The enhancing process is a supportive function that enables the core process to engage the user by creating better circumstances for the user to complete the task at hand. It is the enhancing process that is designed with motivational affordance to create a gameful experience for the user (Huotari & Hamari, 2017). Nicholson (2012) put forward that in order to create gamification, that is perceived as *meaningful*, it is important to understand the underlying core activity that the gamification process supports. Based on that understanding, the designer can determine how gamification can be incorporated in the IT-system to support the user and create a context that stimulates employee involvement.
2.4 Game Elements

In this section, different versions of how to explain and structure game elements, the building blocks that create gamification, will be presented, leading to a summative framework of the different game elements.

To construct gamification, the owner, creator and designer need to apply game elements to signal gamefulness to the user. However, game elements are complex since it is not just the visual components that determine what is visually noticeable in a game. Aspects such as structure, strategy, guidance, etcetera also help create a game experience. Furthermore, there is not one comprehensive collection of all available game elements that can be used to create a gamification experience. What is considered an element that signals gamefulness in one context, can in a different context be experienced as something completely different by the user. The selection and creation of game elements are, therefore, affected by contextual and user variations. The game elements need to be carefully chosen and shaped by the designer to signal the intended affordance to the user, based on their specific characteristics. There are different perspectives on how the elements can be categorised and explained.

Werbach and Hunter (2012) argue that game elements are specific characteristics from games that can be isolated and used in the development of gamification. They compare them to a toolbox, where the designer can choose the tool that best fits the purpose. Elements are the building blocks that the designer selects and uses to create a gamification experience. The authors describe three different types of elements that are relevant and their interconnected hierarchical structure as described below (Werbach & Hunter, 2012):

- **Components**: the foundation and the more specific functionalities and visual design that can be implemented into the interface. Consists of, e.g., badges, points, and social graphs.
- **Mechanics**: the in-between layer and the basic structures of the experience. They drive the user interaction process and trigger user engagement. Consists of, e.g., challenges, cooperation, and rewards.
- **Dynamics**: the highest level of the hierarchy that reflects the overall sought-out objectives and purpose. Explains the underlying reasons for the user why they should interact. The dynamics are not developed in the interface itself, they act as the underlying motives that steer the other design choices. Consists of, e.g., constraints, narrative, and progression.

The hierarchy between the categories is structured so that each component is linked to one or more mechanics, these are in turn linked to one or more dynamics. User interaction with the functionality and design of the system triggers the links to the overarching elements and contributes to the overall user experience (Werbach & Hunter, 2012).

Another approach to explain game elements is based on the MDA game framework (Robson et al., 2015; Ruhi, 2015). MDA is a toolbox used in game design to analyse how players take on the game and their user experience based on three different elements: mechanics, dynamics and aesthetics (Hunicke, LeBlanc & Zubek, 2004). Ruhi (2015) has further developed
the MDA framework in order to adapt it for gamification. The adopted framework has been tested empirically in three case studies which all have validated that the revised version works for the intended application.

The framework consists of three different types of elements as well as the add-on that is been made by Ruhi (2015) in the form of: The 20 Cs of meaningful enterprise gamification. The adapted framework game elements consist of:

- **Mechanics**: the rules and components that form the basis of what the user can do, the process that drives the interaction with the user and the structure of how the user can make progress and develop their skills. Consists of components, controls, and courses.
- **Dynamics**: how rules, choices etcetera operate during the actual interaction based on user input and how different users interact amongst themselves. Consists of, e.g., context, consequences and cooperation.
- **Aesthetics**: the sought-after emotional reactions of the user in connection to the interface interaction. Consists of, e.g., challenges, confidence, and creativity.

The designer uses functionality in the form of mechanics, through which the user creates specific user–system interactions, i.e., the dynamics, which leads to the specific user experience associated with emotions, i.e., the aesthetics (Ruhi, 2015).

This version of the MDA framework is based on the existence of a basic *story*, a *narrative*, in the interaction between the designer, system, and users that is ongoing throughout the process. The basic story is divided into three types of narratives, embedded, emergent and interpreted (Ruhi, 2015). The narrative serves as a support to the design elements and explains the designer's and user's perspectives in the interaction during the process. For gamification to succeed, the different narrator perspectives need to be coherent. All too often empirical tests have shown that users and designers mentioned the same game elements but with different references, which can lead to problems in gamification processes. Therefore, an organisation using gamification needs to consider both the designer’s forward-looking perspective and the user's backward-looking perspective in the development of the gamification process (Ruhi, 2015).

Another version of the MDA framework adapted for enterprise gamification is presented by Robson et al. (2015). Their framework is renamed to MDE; mechanics, dynamics and *emotions*, to better fit the objectives with enterprise gamification. They argue that the element category explained as the aesthetics is actually the user's emotional response of the interaction with the interface. To make it clear that the framework is intended for gamification instead of game development, they choose to use emotions as an element category since it symbolises the desired result.
2.4.1 Game Elements Framework

Based on the above models and frameworks, it is clear that game elements have a complex connected internal structure and that elements interact between different levels. As a compilation, four levels of gamification design elements can be identified and these can be summarised as:

- **Components**: the basic functionality and visual building blocks that can be used in the design layout to create game affordance.
- **Mechanics**: the basic structures and rules that control what the user can do in the interaction with the interface based on the designed affordance.
- **Dynamics**: The overall objective of the process and how the process is customised based on the user's interaction with the interface when interpreting the affordance.
- **Emotions**: the user's inner experience and emotional reaction to the designer's created affordance.

![Components - Mechanics - Dynamics - Emotions](image)

*Figure 1: Gamification elements framework illustration (model created by the writer).*

2.4.2 Mapping of Game Elements

As mentioned earlier, there is no comprehensive list of all available game elements since there is no clear boundary regarding what is and what is not a game element. There are some elements that are used more often that can serve as a foundation. To map game elements mentioned in research papers and studies can, therefore, be a starting point for a greater understanding of what elements gamification designers can utilise. Sillitos, Jesmin & Rinde (2016) conducted a quasi-literature review where 78 peer reviewed books and articles were identified on the topic of gamification as well as addressing various game elements. Based on the peer review 103 pieces of game elements where identified. The elements that occurred with the highest frequency in the research literature are: interaction, goals, levels, rewards, and players. The authors did not find it feasible to create a taxonomy of the available game elements since the structure is more similar to a network. By performing a *Social Network Analysis*, they could instead identify the various connections and visualise these in a network diagram. The network analysis showed that challenges play a central role in the development of gamification. Also, story, emotions, game world, and intrinsic motivation are aspects that are central from a network connection perspective.
2.5 Internal Gamification Perspective

The use of gamification can be seen as a way to motivate employees based on human psychology (Werbach & Hunter, 2012; Dale, 2014; Chen 2015). It can help the organisation, to create a feeling of immersion in the employees working experience (Klevers, Sailer, & Günthner, 2016). The reasons for an organisation to adapt gamification can be many, e.g., introduction of new initiatives, training, enhance productivity, or knowledge management. Independent of the reason, the IT-system that is gamified is most often part of the internal operations and something that the intended user interacts with in their daily work.

Internal gamification has two aspects, that Werbach and Hunter (2012) propose differentiates it from external. The first aspect is that the intended users are already defined and have an established link to the designer. Their characteristics are known and they have shared reference points such as the corporate culture. The other aspect is that the included motivational factors must correlate and interact with the organisations overarching management and motivational systems. This is because the organisation already has a relationship with the employees that is based on external rewards such as salary, managerial praise, and recognition. Adding other types of motivational factors is tricky and organisations have to handle motivational incentives and rewards with great care (Werbach and Hunter, 2012). It is important that the reason for feedback and recognition is clearly communicated to the employee (Dale, 2014). This helps them, and other organisational members, to understand the reasoning behind the generated effect.

Many researchers are in agreement that intrinsic motivation is the best foundation for sustainable gamification (Blohm & Leimeister, 2013; Dale, 2014; Ruhi, 2015; Augustin et al., 2016; Klevers, Sailer and Günthner, 2016; Veltsos, 2017). Their claim connects to the employees need of information and feedback, feeling of accomplishment and pride, skill development, etcetera and engages them in the actual tasks they are performing. Dale (2014) proposes that employees should be encouraged based on quality and not quantity. The gamified system should reflect this to make sure to engage and motivate the right type of behaviour.

When using gamification to motivate employees the organisation can create a storified context by linking it to the work environment for the employees involved (Ruhi, 2015). This can help employees understand and connect the initiative to the organisational business objective.

The objectives for the gamification process should be focused on the intended user and not the organisation (Nicholson, 2012; Deterding, 2015; Dale, 2014). The organisation has a main purpose why they want to use gamification, e.g., increase productivity or efficiency. However, Nicholson (2012) expresses that the experience should be meaningful and constructed for the employee. It should enhance the employee’s experience to motivate and engage them in succeeding with set goals and to continue to use the system (Dale, 2014). The potential danger is that the employee’s commitment and drive to perform is reduced and the purpose of
using gamification has the opposite effect. The organisation, therefore, should be transparent in the process, including the users in the process and aligning the business objectives with the user’s objectives (Nicholson, 2012).

Dale (2014) asserts that a gamified system in the workplace should correlate with the overall look and feel of the organisation. The design, furthermore, needs to consider the right level of professionalism and should be aligned with corporate standards. A challenge is how mature the organisations IT-structure and internal culture are to change. The way information and knowledge is shared are important factors to consider, to not risk resistance in the employee acceptance.

2.5.1 Employees as Users

In organisational situations gamification can be used as a tool to enhance the employees’ interaction with an IT-system as part of digitalisation processes (Westerman, Bonnet & McAfee, 2014).

There are different participants in a gamification process and all of them can impact the employee’s experience. In internal gamification, the employees are typically the main users of the gamified IT-system. Management is represented in the ownership and creation of the gamified experience (Robson et al., 2015). Another important group, that can be referred to as the spectators, are the people that do not directly participate but have an impact through their interaction with the user (Robson et al., 2015). In a workplace, these spectators can be the employee’s manager or colleagues that are not using the gamified IT-system themselves. However, they have a big influence on the employee’s experience in the way they respond and react to the user–system interaction. The employee’s manager can be an important component to successful gamification since they have the possibility to support and encourage them. Colleagues can have an impact on the social acceptance of the gamified system, which impacts the employee’s attitude (Hamari & Koivisto, 2015). Also, the manager can observe the employee’s reactions as part of monitoring, evaluating and improving the gamification experience over time (Robson et al., 2015).

Different employees’ skill sets and prior knowledge are factors to weigh in when creating an internal gamification experience (Robson et al., 2015). The experience should be complex and flexible to encourage different employees to participate based on their user profile.

An important aspect of internal gamification to consider is if it is perceived as mandatory or not by the employees. Mollick and Rothbard (2014) state that mandatory participation is a form of control that can evoke feelings of unease and limited liability. Therefore, employees should physically consent to participate, which means that they actively cooperate with the management initiative. Employee consent can be seen as a cognitive reaction that is indicated by three factors: the user understanding the rules, perceived fairness and justice by the user,
and active engagement from the user (Mollick & Rothbard, 2014). Not consenting would mean that the employee opposes and engage in resistance or just ignore the initiative.

Collecting and analysing data gathered through the application of gamification can be a source of control and the employees might see it as an attempt to manipulate them. The way user data is collected and stored should be handled with special care and consideration (Blohm & Leimeister, 2013). Therefore, transparency can be seen as an important factor in successfully following up user motivation, attitude, and behaviour (Raftopoulos, 2014).

### 2.6 Criticisms of Gamification

One of the main criticisms of gamification, that the game design field has voiced, is that it is based on the simplest parts of what constitutes a game (Bogost, 2011; Nicholson, 2012; Deterding et al., 2013; Bogost, 2014; Seaborn & Fels, 2015). The most used example is that gamification is just about adding points, badges and leader board (also summarised as P.B.L. elements) to non-game systems without any other consideration of what makes a game fun, engaging, and motivating for the player (Deterding, 2012; Werbach & Hunter, 2012; Veltsos, 2017). This criticism, also called pointsification (Kapp, 2012; Werbach & Hunter, 2012), is not without foundation, since a lot of the early gamification projects focused on these elements. This has, therefore, been one of the most visual and frequent examples of gamification. The criticism also has bearing since creating gamification is very much creating an experience. If the designer relies on simple components without considering other levels of game elements and without understanding the psychological motivational triggers behind engagement, the desired long term effect will most likely not occur.

Research that is focused on examining the P.B.L. effect has come to the conclusion that points, badges and leader boards can have a behavioural change effect, i.e., the user adopts its behaviour as a result of being prompted with this type of elements. But the effect has been shown to be short lived and the user motivation can also decline after a while when they get bored with the game elements (Hamari, Koivisto & Sarsa, 2014). Leader boards might be the most uncertain of the three since it also has been shown to have a demotivating effect on some users (Werbach & Hunter, 2012; Augustin et al., 2016). The use of P.B.L. elements has been connected to extrinsic motivation triggered by external rewards when performing a specific activity (Deterding, 2012). The motivation is not connected to the actual performance, and the designer has to make sure that the reward is high enough to motivate the user to continue performing the activity.

There is a risk with implementing gamification if the developed solution is based on the addition of simple game components and not the more complex aspects that makes a game challenging, enjoyable and rewarding in itself (Deterding, 2012). It might be tempting to add extrinsic reward elements in the belief that this will engage the users, and at first there might be a positive outcome. But the long-term sustainable results will not be delivered. The criti-
cism of focusing on extrinsic rewards is also connected to exploitationware (Werbach & Hunter, 2012; Deterding, 2012) coined by Ian Bogost in 2011. It refers to the idea that using game elements just for the purpose of an easy win for businesses is a simplification. The user provides real value to the business organisation, and is rewarded with virtual tokens that have no real meaning but triggers the user’s extrinsic motivation.

Another criticism of gamification is the potential risk of the concept being used to manipulate people to do something that they are not fully aware of (Chen, 2015; Kim & Werbach, 2016). The critics mean that packaging an IT-system with a gamification environment can disguise the actual purpose from the user. The experience itself tricks the user to accept terms and conditions that they might otherwise not agree to. Gamification can be used in this way and it is very much dependent on the designer and their purpose for using gamification, and also how much of the purpose and goal is disclosed to the user.

Connected to this criticism of manipulation is the issue that gamification forces the user to interact with the system or task intended for them. By luring the user with an experience that does not seem to be work, but rather a game, the user is tricked into doing something that they might not want to do if they encountered it without the gamified components attached (Kim & Werbach, 2016). The research field has addressed this factor and is in agreement that since gamification is based on the principles of games, where volunteerism is one of the basic conditions for the game experience to succeed in motivating and engaging the user, gamification also needs to rest on this foundation. The user should always be aware of what they are doing and understand how their interaction contributes to the main purpose. This concern becomes important when considering using gamification internally to motivate and engage employees (Mollick & Rothbard, 2014; Deterding, 2016). Since the organisation and its managers are in a power position in relation to the employees, there is a risk that this power will be converted to coercion in the implementation of a gamified IT-system.

2.7 Previous Research of Gamification

This section explores previous research done to test if gamification works and if it has an effect on the users’ motivation, attitude and/or behaviour.

2.7.1 Does Gamification Work

One of the most common criticism raised concerning gamification is that it does not work. That it does not deliver the outcomes that have been highlighted as its benefits. Since gamification as a research field is relatively young there has not, in the past, been much data to back claims regarding motivation and engagement enhancement or behavioural change impact amongst users. But in recent years, there has been a call amongst researchers for more empirical data and more studies looking at the effects of gamification that has been conducted. The
quality of the research still has its limitations, with studies being conducted with different methods, researching different aspects of the gamification process, etcetera (Johnson et al., 2016). However, the volume of empirical data now starts to provide a conclusive indication if gamification can deliver the sought-out results.

In an effort to get an overview of the empirical results Hamari, Koivisto and Sarsa (2014) examined 24 peer-reviewed empirical research papers published between the years 2008-2013. Their analysis showed that within motivational affordance the most common game elements tested were points, achievements/badges and leader boards. But also, other elements such as challenge, story/theme, levels, feedback, etcetera were frequently tested empirically. Most of the studies focused on the behavioural results among users. Some studies focused on diverse psychological results through motivation, attitude, enjoyment, etcetera. The collective results of the reviewed material show that gamification generates positive effects and results in a majority of the conducted studies. Most of the reviewed papers reported positive results for some of the game elements that were tested. The compiled qualitative aspects of the studies showed both positive and negative results connected to implementation. Positive experiences were accounted for in all the reviewed studies but some of the same studies also showed negative experiences from some respondents. The review suggests that gamification does work but there is still some uncertainty regarding the specific effects and results. The examined outcomes also indicated that the user is very much a variable that impacts the results. This implies that specific gamification solutions only suit certain user categories or individuals, since different users interact in different ways. Therefore, the user experience of the motivational affordance is uniquely different. The reviewee comes to the final conclusion that gamification has been proven to have an effect on users’ behaviour and motivation.

2.7.2 Researched Effects of Gamification

Later empirical studies on the effects of using gamification provide more insight into if and how it works.

Landers and Landers (2014) researched the use of leader boards to increase learner time-on-task in an educational setting. They could show that the use of a leader board game element improved the time users spent on a specific learning task.

Yan, Qi and Marcus (2015) studied the implementation of gamification in an IT service desk environment to improve performance of knowledge transfer. The qualitative results show that the people included in the study found that the incentives system (points, badges and leader board) used to encourage performance was motivating and engaged them.

Mekler et al. (2015) showed in a study that the use of points, badges and leader board affected the users’ behaviour through extrinsic rewards since the user’s intrinsic motivation was not changed in the study. The game elements were not seen as informative and, therefore, did not lead to the users feeling more competent or impacting their intrinsic motivation.
Klevers, Sailer and Günthner (2016) tested a gamification interface that supported order picking within an organisation. The results show that the gamified IT-system improved the performance (speed) and reduced the number of errors significantly amongst the test participants. The user’s intrinsic motivation was also surveyed and showed a higher motivation amongst the participants working with the gamified system. The employees that participated in the study indicated that they accepted the gamified system and that it was a change in the routine work. But they also stated that they might become bored with the system after a while, an indication on the need for complexity and variation.

Mitchell et al. (2016) study was designed to evaluate user’s intrinsic motivation through different game elements, to motivate maintained behaviour change. The results showed that gamification both initiated and maintained a specific behaviour. But the study could not show the connection between intrinsic motivation improvement and behaviour change.

Buckley and Doyle (2017) showed in their study, on individualising gamification in a learning environment, that for gamification to work the results were very much dependent on the individual user. The user’s experience of the gamified system was connected to their individual attributes. The authors concluded that for gamification to succeed it needs to be created in a nuanced manner.

Sailer et al. (2017) did a randomised controlled study where they varied different configurations of game elements to measure the impact on psychological needs. The results are interpreted to support the notion that gamification as a whole is not responsible for the effects but rather that the different game elements have specific psychological effects impacting the user. Opposite to Mekler et al (2015) results, the study showed that game elements such as badges, leader boards and performance graphs were found to support the user’s competence need satisfaction. Other game elements such as avatars, meaningful stories and teammates affected the users’ experience of social relatedness by introducing a shared goal and led to feelings of relevance. The authors state that an important factor is the user’s awareness of the game elements and that the creator of a gamified system cannot assume that the user will be aware just because the game elements are implemented or that the elements will be self-explanatory. They also add that the aesthetic design and implementation process are important factors on the user effects of gamification.

2.7.3 User Motivation and Attitude Toward Gamification

Hamari and Koivisto (2015) have researched the relationship between different types of motivation, in relation to the continued intention to use gamified IT-systems and the users attitude towards gamification. The results show that the use of gamification is driven by both hedonic and utilitarian benefits and motivations. Both these aspects are important determinants for the acceptance of gamification. Their results, moreover, show that the hedonic motivation, i.e., the fun and enjoyment aspects, has a direct positive connection to the use of the gamified sys-
tem. Furthermore, it also has an impact on the behaviour aspect, i.e., how much the user is willing to interact with the system. The utilitarian motivation, e.g., productivity and efficiency, is mediated by the user’s attitude toward the use of gamification. Social factors were shown to have an impact on the attitude toward the gamification system. However, the results state that it had no significant association with direct use intentions. The authors conclude by stating:

Moreover, the relationship between perceived usefulness and continued use was shown to be mediated through attitude. Consequently, the results suggest that hedonic aspects (i.e. the intrinsic motivators) drive the actual use, whilst utilitarian and social aspects (i.e. the extrinsic motivators) affect the attitude, and through attitude, have an effect on use intentions. (Hamari & Koivisto, 2015, p. 427)

**2.7.4 Narratives and Stories in Gamification Systems**

In games, narratives and stories are central components of what engages and intrigues the user. They are used to providing structure and meaning to the interface. However, the use of narratives in gamification has been created based on intuition rather than knowledge according to Langer, Hancock and Scott (2014). The authors claim that if designed right, narratives can have a motivational effect rather than just a decorative one.

To research how narratives and stories can motivate users, a study was designed by the authors to examine how suspense can be portrayed in order to increase user motivation and satisfaction. The aim was to boost the emotional engagement of the user by, e.g., communicating the importance of the outcome. The empirical study was based on a tutorial, constructed with either a gamified interface or a regular interface. In the gamified version, a story was incorporated in the explanation of what the user should do. Moreover, the visual part of the interface was designed to be perceived more game like and included a character that the user could connect with emotionally. The story element was presented to the user in the introduction and narrative cues was included throughout the user’s interaction with the interface.

The results of the study show that the narrative and story-based tutorial created a greater feeling of hopeful suspense. Even a simple narrative was shown to have an increased effect. Amongst the respondents that did not interact with the narrative or story, an increased feeling of uncertainty, that impacted the user, was noticeable. In conclusion, the study showed that implementing stories and narratives can be used to drive user engagement and motivation. The communicative aspects are used to create a greater understanding of what the user should accomplish and help to create an emotional connection to the task at hand (Langer, Hancock and Scott, 2014).
3. Theories of Communication

In order to create a theoretical frame of reference an interdisciplinary overview of communication theories relating to change will be presented in this section. It contains theoretical perspectives on change communication, sensemaking, and human psychology. The theories have been chosen based on that change communication takes a strategic approach to the change process and clarifies the communicative aspects of the transformation. Furthermore, sensemaking explains the involved actors’ change journey and how organisations can impact employees frame of reference to create a new common ground. Finally, human psychology connects to employees’ motivation, attitude and behaviour in order to engage them in the transformation. This, together with the background, theories, and previous research on gamification, is the foundation for the later presented theoretical framework.

3.1 Strategic Change Communication

A key component of organising is communication. It connects the different actors within an organisation and enables them to share information, knowledge, meaning, etcetera. Communication is consequential, it creates action, i.e., it partakes in things happening and frames situations within the organisational context (Christensen, Morsing & Cheney, 2008).

When faced with a disruption from the ordinary state organisational leaders need to react, identify the threat and understand what types of actions need to be taken. The organisation can, in this situation, take a strategic approach to handling the transformation. This implies that the organisational leaders identify a new state for the organisation, create a clear vision and objectives for the transformed conditions, and plan for how to implement the change.

When an organisation is in a state of change, communication can take on many different responsibilities in a change process, it is used to, e.g., inform stakeholders, create structure, motivate and engage those affected by the change, gather feedback. For a change process to be successful, with sustainable results, it is important that the communication is shaped to fit the specific situational needs of the organisation and support the long-term objectives.

Strategic communication can be seen as a normative approach, where rules and norms that govern how the organisations actors should behave are enforced. This can mean that change communication is used as acts of persuasion and manipulation. However, dependent on how the organisational leaders perceive change and act towards the other organisational members involved, it can in contrast be seen as an interchange of sensemaking, where the leaders share their frame of reference, why the change is needed and their perceptions on how the organisation needs to adapt to survive, develop and grow as a unit. The latter being a perspective of communication as an ongoing organisational dialogue controlled by all participants rather than just by management. This can be used to encourage a shared sense of meaning with the rest of the organisational members in order to enable a joint change effort.
From a communication perspective, the organisation’s actors are partaking in a “constitutive process that produces and reproduces shared meaning” (Craige, 1999, page 125). The communications process that acts as the foundation for the creation of a shared meaning involves interaction, discourse, and interpretation amongst the involved actors (Lewis, 2011).

3.1.1 Three Important Change Communication Processes

Lewis (2011) identifies three communication processes that have a big impact on organisatioinal change: information dissemination, soliciting input, and socialisation.

Information dissemination is used to reduce uncertainty in the organisation. When communicating change, it is very important to carefully construct the right type of message. Change communication has a better chance of success if the internal and external factors that drive the change decisions are clear and transparent. The communication should also connect the change to shared values and the bigger goals for the organisation to help people involved understand the need for change. Another important factor is trust. By showing commitment to the long-term objectives people involved gain greater confidence for the intended change process (Tucker, Yeow & Viki, 2013).

Soliciting input from employees involved in the change is a way to engage and empower them, this helps to manage their feelings and concerns about the change. It provides a number of benefits, e.g., lower resistance, increased satisfaction, and increased feeling of control. In an organisational change, involving the people implicated in the process, has been shown to be a successful way of increasing satisfaction and strengthening the perception of control. There is no equate relationship between an employee’s involvement and their satisfaction with the change process. Simply including the employees is not sufficient, they need to be able to sense that they can impact the process and that their input is valued and implemented (Lewis & Russ, 2012).

Socialisation as a communication process is connected to how an organisation shapes the employees understanding of, e.g., values, procedures, culture and expectations. In a change process this entails shifting the employee’s frame of reference so that it matches the organisational ideal frame based on vision and objectives.

3.1.2 How to Communicate Change

Communicating change has both strategic and tactical aspects that are important in order to be successful (Clampitt & Berk, 1996). The strategic aspects relate to analysing and understanding the change, its impact on the organisation, and how the communication should be designed to support the transformation and the people involved. The tactical aspects are concerned with how the different communicative parts are going to be created based on the strategic guidelines. The strategic part should answer the questions why, what, who and where.
The tactic part relates to the implementation planning and should answer the questions how and when. For change communication to be as effective as possible the employees should receive the right amount of information that is considered relevant for them to understand the change. There should also be possibility and freedom for the employees to reflect and explore the implications of the message (Clampitt, Dekoch & Cashman, 2000).

### 3.1.3 The Change Message

One of the most important aspects of change communication is the fundamental change message. This message explains the change and sets it in a context that is understandable for the people involved. It runs like a common thread throughout the process. It is, therefore, important that it is created to match the target group’s need to make sense of the change to be able to accept it. For the change message to have the desired effect, there are five components that are key aspects (interpreted and composed based on versions by Armenakis et al., 1993; Bernerth, 2004; Lewis, 2011; Iveroth & Hallencreuítz, 2016):

#### The change message components overview

<table>
<thead>
<tr>
<th>Component</th>
<th>Explanation</th>
<th>Action</th>
<th>Key concern questions</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Self-efficacy</strong>, the belief</td>
<td>Confidence in individual and group’s ability to make the change succeed.</td>
<td>Define the core motivational factors and belief that help the employees handle the change. That</td>
<td>Can we handle this? Will we be able to implement the change? Will I be able to execute my</td>
</tr>
<tr>
<td>that the change is something</td>
<td></td>
<td>they have what it takes to cope, manage and drive the change forward.</td>
<td>part of the change successfully?</td>
</tr>
<tr>
<td>that can be successfully</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>accomplished.</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Principal support</strong>, the belief</td>
<td>Key organisational leaders support this particular change.</td>
<td>Define how much management is perceived to support the change and how they should engage in the</td>
<td>Is the management team credible and walk-the-talk? Does the management team believe in the</td>
</tr>
<tr>
<td>that high-level decision makers</td>
<td></td>
<td>process.</td>
<td>change? Do we have the management teams full support?</td>
</tr>
<tr>
<td>share a commitment to the change</td>
<td></td>
<td></td>
<td></td>
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<tr>
<td>initiative long-term.</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Discrepancy</strong>, the belief that</td>
<td>The gap between the current state and an ideal state.</td>
<td>Define what is the different between now and the ideal state.</td>
<td>Is the change necessary? Why should we change?</td>
</tr>
<tr>
<td>the change is necessary.</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Appropriateness</strong>, the belief</td>
<td>The correct reaction to fix the gap identified by discrepancy.</td>
<td>Define that the change is possible and appropriate when it comes to creating the sought-out impact for the organisation.</td>
<td>Will the change work? Why this change? Is the suggested change appropriate?</td>
</tr>
<tr>
<td>that the specific change is the</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>correct one to address the</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>discrepancy.</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Personal valence</strong>, the belief</td>
<td>Clarifies the intrinsic and extrinsic benefits of the change.</td>
<td>Define both internal and external benefits for the impacted people.</td>
<td>What does this mean for me? What is in it for me? What do I gain?</td>
</tr>
<tr>
<td>that the change is beneficial to</td>
<td></td>
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The presented components should not be seen as a script outline, it is not about just addressing the key concern question in the change message. Rather it is about making sure that the organisation is aware of these aspects. That they have taken action so they can live up to the promises that the change message delivers. The change message should be used as ongoing communication throughout the change process. If used continuously in an adoptive way it can help the employee’s sense making of the change, create awareness, understanding and the willpower to participate and move forward with the change (Iveroth & Hallencreuitz, 2016).

Bernerth (2004) emphasises that the sender of the change messages needs to be aware of the contextual and social impact of the communication process in the organisation. To succeed the sender needs to prepare and understand all the underlying factors that impact how the message will be interpreted. Furthermore, the creator of the change message need to understand the perspective of the receiver. The sender should have knowledge and understanding of what it is that the employees are mainly concerned about and, therefore, are trying to make sense of in regards to the change (Iveroth & Hallencreuitz, 2016).

3.2 Sensemaking

Sensemaking is a process where people try to make sense of what they experience and put it into a for them meaningful context. This influence how they see the world around them, their own social construction, and thus affects how they act accordingly. The human instinct is to add structure and meaning when a person comes in contact with the unknown. This is an ongoing process that takes place in the interaction with the surrounding environment, in real-time. The person becomes aware of the actions meaningfulness during the act itself (Iveroth & Hallencreuitz, 2016). Sensemaking has great impact on people’s behaviour since it is the primary place where meanings materialise, through language, speech and communication, in order to inform and constrain a person’s identity and action (Weick, 2009).

There are seven aspects that are crucial for sensemaking to occur. The basic foundation of sensemaking is (Weick, 1995; Weick, 2009; Iveroth & Hallencreuitz, 2016): Social (interaction and conversation), Identity (clearer frames of referents), Retrospect (relevant past experience), Cues (neglected details in the current environment), Ongoing (updating of impressions that have changed), Plausibility (plausible stories of what could be happening), and Enactment (actions that clarify thinking).

There is a connection between expectations and emotions based on sensemaking. When expectation is met, the emotions are positive but when not met the emotions are negative. This implies the existence of emotional sensemaking and that our emotional reaction impacts our frame and future expectations (Weick, 2009).
3.2.1 The Sensemaking and Sensegiving Process

Sensegiving is the process when someone tries to influence another person’s construction of meaning in a situation through communication and cues. However, another person cannot fully control a sensemaking process since the person is also influenced by other people they are interacting with, e.g., other employees or external people such as friends. The sensemaking and sensegiving process occurs if a social interaction between different people is facilitated (Iveroth & Hallencreuitz, 2016).

![Figure 2: The reciprocal process of sensemaking and sensegiving (Iveroth & Hallencreuitz, 2016).](image)

Sensemaking and sensegiving work in a closely-knit interdependent process and are equally important for a person’s social construct and meaning. The sensemaker and sensegiver interact to influence each other through communication. The result is a shared frame of the future state that is constructed of a shared perspective, cognition and interpretation of the change (Iveroth & Hallencreuitz, 2016). Communication is central since it is an ongoing process of making sense of circumstances and events that people find themselves in and that affects them. Sensemaking takes place in interaction based on language as encoded symbolisations of these events and circumstances (Weick, 2009).

3.2.2 Sensemaking In the Organisational Context

Organisational sensemaking is about shared meaning of vision, objectives, goals, etcetera amongst the stakeholders which is gained through social interaction. It is more complex and less stable compared to individual sensemaking, since there are more people involved and a bigger variety of events, negotiations and implications (Iveroth & Hallencreuitz, 2016). For organisations, it is central to reduce ambiguity and important to enable the members to make sense of actions and events. This can be done through communication cycles, where employees introduce and react to ideas that help them make sense of the uncertain environment (Miller, 2009). The communicative meaning does not exist in the medium or message but rather in the unfolding of meaning that happens when the employees interact in sensemaking activities (Deetz, Tracy & Simpson, 2000; Miller, 2009).
In organisational change processes, sensemaking is essential for the employees to understand how the change will impact them and how it will alter their work situation. The employee will feel uneasy, ambiguity and confused if they do not understand certain information or events they experience. Together with their colleges they will try to interpret and translate facts in order to construct a commonly shared understanding (Iveroth & Hallencreutz, 2016).

The employee’s question their past actions, the shared information, and interaction with management to try to bring structure and meaning to the change. The process will alter the employee’s mind-set and actions connected to the change. If the change message and management actions is delivered in a way that the employee can contextualise as meaningful and trustworthy they accept the change, if not they can resist and work against the change. (Weick, 1995; Iveroth & Hallencreutz, 2016).

3.2.3 Framing

The process of sensemaking is constructed within the relationship between an employee’s frame and cues from the surrounding environment (Lewis, 2011). The frame is constructed by previous experience and is a combination of knowledge, values, rules, etcetera. It is a framework for what an employee perceives is their own belief and meaning. Cues are stimulation from the environment that triggers an employee’s sensemaking based on that something is not fitting with in their frame. The employee experience that they need to analyse the relationship between the cue and the frame, to explore what type of meaning the cue stands for. When that relationship makes sense, the employee becomes aware of the change and can understand the contextual aspects and motives. (Lewis, 2011; Iveroth & Hallencreutz, 2016)

Frames are used “to affect the interpretation of events among different audiences” (Fiss & Zajac, 2006, p. 1174). It provides boundaries to help create interpretable pieces of content and to focus on the most important aspects (Lewis, 2011). Different framings can create different meanings to the same basic content. An employee’s frame is created and altered in the interaction with others. Since people have different frames their interpretation of what is happening in a situation will be diverse. In the interaction between different parties their frames are therefore constantly negotiated. An organisation tries to frame events in a certain way to enhance the positive aspects of a change, so that the employees will accept and incorporate it with their own frame (Lewis, 2011). In the interaction with others, an employee’s frame becomes more aligned but not identical to those other people (Iveroth & Hallencreutz, 2016).

To articulate the organisations objectives with a change, the vision statements can be used to create norms, rules, etcetera that emphasises the ideal state. To be able to transfer this image to the employees the organisation has to get them to share the objectives. Framing involves the behavioural and communication processes that the employees and leaders use to understand and relate to the objectives. To work, there must be clear understanding of what experience, understanding, values, ideas, etcetera in the employees’ frames that the communi-
cation should impact to convey specific goals and objectives of the change (Deetz, Tracy & Simpson, 2000; Miller, 2009).

Framing is focused on the everyday communication that shape employees’ interpretations through *metaphors, symbols, artefacts, myths*, stories, etcetera as discursive tools that actively shape, create and modify the organisation and hold a symbolic function by representing something different or more than what they are (Deetz, Tracy & Simpson, 2000).

Metaphors and symbols can be used in communication that is not person to person, as in IT-system narratives, to impact sensemaking and sensegiving. They can communicate underlying and tacit meaning, which helps the employees construct a collective meaning and identity in the group (Iveroth & Hallencreutz, 2016). Organisational processes and systems have inherent symbolic messages through the structure, control, rewards, and values they carry. They can be a strong signal about how the employee is expected to act and what behaviour is considered correct (Deetz, Tracy & Simpson, 2000).

### 3.2.4 Narratives

Narratives are usually something that takes place in the interaction with others, where a sense of personal meaning is conveyed. The narrative is a reflection of who the employee is and what they do, it connects the past with what is happening in the moment. Narratives have a strong connection to the contextual aspects, if taken out of context most of the meaning is lost. The unfolding of other employee’s narratives is a co-creation of meaning and connects to activities, events, and plans. By co-creating narratives, the employee is also evaluating the legitimacy in the other employee’s perception. The cues that employees extract from narratives provide them with a point of reference from which they make sense of the organisation and their work (Iveroth & Hallencreutz, 2016).

During change processes, there are often different narratives existing and circling in the organisation at the same time. Portraying different versions of reality, creating a fragmented general picture of the change. There are many different narratives that can be seen as possible futures by the employees, these compete with each other to be the dominant one. The different versions of the change reality are in constant negotiation, through the ongoing conversation and interaction amongst the employees and managers involved (Lewis, 2011; Iveroth & Hallencreutz, 2016).

Employees want interaction and communication that is engaging, compared to passive one-way information broadcasted to them (Brown et al., 2005; Forman, 2013). Change leaders can impact the narratives by becoming an active part of the flow of narrations. They can gain important understanding by listening in on other different narratives instead of just focusing on portraying their version of the change. If they do not pay attention and act upon the other narratives they risk making the change illegitimate in the eyes of the employees and there is a big risk for failure (Iveroth & Hallencreutz, 2016; Lewis, 2011).
3.2.5 Storytelling

**Storytelling** has a natural role in change processes since it has the ability of sensemaking and sensegiving (Lewis, 2011). Organisational stories can be an integral part of a change process if leaders are aware of how they can create stories that touch the heart as well as the mind (Brown et al., 2005; Forman, 2013; Iveroth & Hallencreutz, 2016). With an emotional story the employee gets inside the idea, they live the idea and they feel the idea. It connects with the employees own self and links to how they can take the idea and incorporate it into their future actions (Brown et al., 2005). A story can serve as the rational for the change and trigger change readiness amongst the employees. A well-crafted story creates a common ground amongst the employees which enable them to make choices and act in line with the proposed change (Iveroth & Hallencreutz, 2016). Stories also have the ability to go deeper and live longer than many other form of communication, because it creates an emotional connection and they evolve over time.

Stories can be used for both horizontal and vertical communication in a change process. Storytelling is something that leaders do, intentionally or unintentionally, throughout the process in the interaction with the employees. They use stories in a narrative setting to explain the facts of the change so it becomes meaningful to the recipient. This way of portraying the change has a strong explanatory power and, therefore, provides comfort about what is unknown, reduces anxiety, and explains actions and decisions in a context. Stories are also what employees share between themselves to try to make sense together. It is their way of packaging the facts they know to test if that correlate with other people’s perspective (Forman, 2013; Iveroth & Hallencreutz, 2016). It is the employee’s own stories that will energise and excite them about the change (Brown et al., 2005).

3.2.6 Storytelling framework

To be successful, stories needs to be both authentic and fluent (Brown et al., 2005; Forman, 2013). Forman (2013) presents a framework with key aspects of organisational storytelling:

- **Foundation: authenticity.** The story needs to be credible, realistic, tangible, and intended to be truthful (if not true now is it realistically aspirational).
- **Capabilities: fluent.** Storytelling should draw attention by engaging emotions and intellect when crafting the story. Technology is an important factor as distributor.
- **General objectives: build trust.** To gain or strengthen the trust in the organisation by informing, teach, persuading, and inspiring employees.
- **Specific objectives: Based on the change process the story should accomplish specific goals.**
3.3. Motivation, Attitude, and Behaviour

When an organisation is faced with a change it is important to understand how employees can be motivated to accept and adjust their attitude and behaviour accordingly. How organisations motivate and engage employees is connected to human psychology, and how behavioural instincts impact the employee’s ability and willingness to change. Motivation can be seen as the fuel that drives energisation and the direction of behaviour (Deci & Ryan, 1985).

3.3.1 Self-determination Theory

Self-determination theory is a comprehensive theory of human motivation that explain how employees intrinsic and extrinsic motivation drives their behaviour. Self-determination relates to an employee’s feeling of control and autonomy when making their own choices, i.e., the freedom to initiate their own behaviour. The central point is the need for freedom of choice about whether to be in control or not (Deci & Ryan, 1985). The need for self-determination is closely connected to an employee’s need for competence. The need for self-determined competence is significant for an employee to feel intrinsically motivated. An employee has a need to feel competent and self-determined. To fulfil this, they seek challenges that are suited for their competence and that provide them opportunity to use their resourcefulness and creativity (Deci & Ryan, 1985). This keeps an employee involved in an ongoing cycle of seeking and conquering challenges. The emotions of enjoyment and excitement are closely connected to the experience of competence and autonomy, and function as the reward for intrinsic behaviour. Self-determination is inherent in intrinsically motivated behaviour but also exists in relations to some extrinsically motivated behaviours (Deci & Ryan, 1985).

The self-determination theory is based on three factors that, when they are present, states that an activity will be worthwhile for an employee to do, in and on its own. These factors are (Ryan & Deci, 2000):

- Competence: the employee’s sense of ability to perform a specific task.
- Autonomy: the employee’s feeling of control in the situation.
- Relatedness: that the employee can connect the activity to something beyond themselves, e.g., to a social group.

3.3.2 Intrinsic and Extrinsic Motivation

An employee has intrinsic needs and psychological drives, and it are these that give them energy to act and to manage their emotions. Intrinsic needs are innate to an employee and function as a significant energiser of behaviour (Deci & Ryan, 1985). To be able to motivate someone there is, therefore, a need to impact them to do something in some way (Deci, Koestner & Ryan, 1999). An employee’s motivation can move on different axels. They can
have different levels of motivation, how much (from little, to a lot) and different orientation of that motivation, what type (intrinsic to extrinsic). The motivation orientation is connected to the underlying attitudes and goals that are the reason behind an employee’s action, i.e., why that employee acts as they do (Ryan & Deci, 2000).

Intrinsic and extrinsic motivation is based on a motivational spectrum that shows how an employee can move from not motivated, through different kinds of extrinsic motivation, to reach intrinsic motivation (Deci, Koestner & Ryan, 1999):

The spectrum illustrates how different kinds of motivation can be progressed towards more intrinsic regulation in order to be sustainable. Intrinsic motivation is regulated by intrinsic rewards which is based on the notion that an employee does something because they want to, they feel a meaning and purpose with the task in itself. When an employee is intrinsically motivated they experience interest and enjoyment, feel competent and self-determining, and perceive the locus of causality for their behaviour to be internal (Deci & Ryan, 1985).

Extrinsic motivation is based on an employee doing something for a reason other than the achievement in itself. Extrinsic motivation is stimulated by external rewards that can manifest in many different forms, e.g., financial rewards such as salary or psychological rewards such as praise. Extrinsic motivation has different subcategories that stretch from completely external to integrated with increasing amount of connection to the employee’s self. An employee can perform an extrinsically motivated action with different types of feelings attached to it. At the one end, it can be connected to resentment, resistance and disinterest and at the other with an attitude of willingness because of an inner acceptance (Ryan & Deci, 2000). This means that extrinsic motivation can be effectual. Nonetheless it can also, if the emotions and attitudes are not self-endorsed, create resistance.

External rewards acting to impact external regulation can, if used to motivate an employee, crowd out already existing intrinsic motivation. This is called *over-justification effect* and
refers to that the extrinsic rewards being substitute to the intrinsic motivational factors. Since the employee connects their behaviour to the reward as the cause of their behaviour and disregard their interest in the activity (Deci, Koestner & Ryan, 1999). Through internalisation an extrinsically motivated attitude, belief, behaviour, etcetera can be integrated based on the demands and values of the socialising environment. The process is controlled by the employee and not by the surrounding environment. The aim is for the employee to be more competently self-determining in the social world. (Deci & Ryan, 1985).

### 3.3.3 Goals and Goal Setting

*Goal setting theory* states that in order for an employee to relate and get engaged in relation to a set goal they need to be committed, have the ability to reach it, and that there are no conflicting goals (Locke & Latham, 2006). Performance to reach a goal can lead to an employee feeling self-satisfaction based on affect. In a work situation, an employee feels successful when they pursue and attain important and meaningful goals that enable them to grow and meet challenges connected to their role. An employee’s performance is a function of their ability and motivation. The possibility to reach a set goal requires the employee to have the right task knowledge and skills. This means using existing knowledge, recalling tacit knowledge and searching for new knowledge (Locke & Latham, 2006).

Feedback is key to successful goal setting. Goals work together with self-efficacy to mediate other motivational factors such as feedback, incentives, autonomy, etcetera. An employee needs to be able to track their performance to stay motivated and committed to the goal. (Locke & Latham, 2006).

Goals and evaluations can be a demotivating factor for intrinsic motivation if not handled right. If the evaluation process emphasises or puts pressure on the achievement of externally imposed standards and goals, it is likely to undermine the employee’s own intrinsic motivation. Using competitions to help an employee reach a goal can demotivate them. The pressure to win, being controlled by if your performance is better than someone else’s, undermines the intrinsic motivation. (Deci & Ryan, 1985).

### 3.3.4 Employee Motivation, Herzberg's Dual-factor Theory

Herzberg's (2003) *dual-factor theory* states that what motivates employees and creates job satisfaction, is separate and distinct from the factors that creates job dissatisfaction. They are not opposites of each other since they involve two different needs. The *hygiene factor* is connected to human beings’ basic needs and the motivation factor to an employee’s unique characteristics and abilities. The dissatisfaction avoidance or hygiene factors (that are extrinsic), are not motivating if present but if absent demotivates the employee. They include, e.g., salary, job security, working conditions, supervision, organisational policies. The motivational
factors (that are intrinsic) provide the employee with motivation and feelings of positive satisfaction. They include, e.g., challenging work, recognition, responsibility, achievements, growth opportunities. The motivational factors are the main cause of job satisfaction and the hygiene factors are the primary cause of unhappiness in relation to the employee’s job. The motivators also have a more long-term effect on employees’ attitudes (Herzberg, 2003).

3.3.5 Engagement Through Communication

When involving employees in a change process it is important to motivate and engage to create meaningfulness and positive attributes associated with the change, since the employee’s communication has a strong connection to psychological factors that drive their engagement. Engagement can be described as a dynamic and changeable psychological state that occurs in-between employee and organisation (Welch, 2011). It is perceived as an organisational communication practice that can help convey values to employees and involve them in the organisational goals. Employee engagement is characterised by three aspects; absorption, dedication and vigour that works on emotional, cognitive and physical dimensions. These are interconnected to three psychological conditions that are necessary for the employee to experience in order to be engaged; meaningfulness, security and availability (Welch, 2011).

To be able to engage through communication it is vital to understand what types of concerns employees might have in connection to a change. Lewis (2011) states three different concerns:

- **Uncertainty concerns**, are connected to the problems and issues that arise when employees do not know what to expect or cannot picture likely outcomes of a change.
- **Performance concerns**, reflects the employee’s uncertainty of perceived own mastery of the skills and competence in relations to the implemented changes.
- **Normative concerns**, can be both in connection to the change itself such as timing of the change or the side effects of the change such as how the change is introduced.

These three exist in parallel with concerns about the appropriateness of the change connected to challenges and opportunities it implies (Lewis, 2011).

3.3.6 User Engagement

An IT-system user being engaged in a certain activity means that the employee is emotionally connected to what is happening, they are drawn in and their attention is focused on the activity (Augustin et al., 2016). The purpose of engaging a user is to motivate them in relations to the connected activity. Benyon (2014) have listed some key aspects of user engagement:

- **Identity**, a user looks for possibilities to identify themselves with something and when that happens they are more emotionally invested. It is also important that it provides a feeling of authenticity for the user to be able to express their self.
• *Adaptivity*, the possibility to customise, change and personalise contributes to engagement. It creates variation and development which generates experience at many levels of skill and enjoyment.

• Narrative, to be engaged a user needs to understand and connect different facts with the activity. The narrative needs to explain the plot and create a feeling of suspense to create both emotional and intellectual connections that engage the user.

• *Immersion*, if a user feels wholly involved in the activity they are doing their focus will be heightened and they will be able to devote themselves completely to the task at hand.

### 3.3.7 Engagement Loop

When engaging a user in an interactive IT-system, it is important that the motivational factors that drive the engagement are adaptive toward the user experience. For this to happen the user and IT-system need to communicate feedback to indicate how the user is interpreting the systems affordance and the IT-systems response to the user’s activities. The process can be seen as a *loop* where the motivational factors lead to an activity performed by the user (Werbach & Hunter, 2012). The activity is the users feedback on the IT-systems affordance. The system then provides the user with feedback based on their action, to continue to motivate the user to perform the activity or to motivate the user to do another activity. The loop can be seen as the continued exchange between designer and user, mediated by the system. The exchange continues as long as the user experience takes place. The loop acts as a clarification of the relationship between motivational affordance and user experience mediated by feedback and rules.

### 3.3.8 Progression

Another way to keep a user engaged is connected to *progression*. A design method based on the users’ need to succeed and develop their skills. The user experience changes as the user gets more skilful and adapts to match the increased level of challenge needed to keep the user motivated (Werbach & Hunter, 2012; Veltsos, 2017). The progress can be noticeable for the user in many different ways, e.g., different levels, unlocking of content or challenges, and visual progression indicators.
4. Theoretical Frame of Reference

A new theoretical framework has been created based on the background of gamification and theoretical aspects presented from the change communication, sensemaking and human psychology fields. A combination of these aspects is central in determining how communication should be planned, constructed and implemented in an internal change process using gamification as a tool.

4.1 Gamification as a Communication Tool in the Change Process

The theoretical framework is built on the sensemaking and sensegiving process and shows how gamification can help drive the change process. To create the right type of change communication it is important to understand the employees’ acceptance process of the change. The internal process can be seen as the employee’s responses to cues and stimulus from the organisation and the rest of the external environment. The employee’s current frame of previous experience, knowledge, and beliefs play a central role in determining what types of cues they respond to. The most important aspects are the explained motivational benefits presented in connection to the change. Depending on how well they match with the employees’ own objectives, values, etcetera they can have a “make it or break it” effect on the change acceptant. The process stimulates both the cognitive and affective processes since both are important to the employee’s intentions and behaviour in relation to gamification. The process is described in the model below (figure 4).

![Figure 4: The gamification change process. Based on Iveroth and Hallencreutz (2016): The reciprocal process of sensemaking and sensegiving.](image)

To get the employee to accept and participate in the change process the communication needs to describe a vision for the change objective and explain why the change needs to happen,
how it will happen and the aspects of the employee’s involvement in the process. The change communication takes place on two levels, on the organisational level with the concerned employees and on the gamified IT-system level. Both applications of communication are crucial in order to succeed and reach the set objective for the digital transformation.

4.1.1 Communication on the IT-system Level

In the IT-system, the role of change communications is to drive the user’s interaction with the system based on set objectives. The designer uses motivational affordance to include the change messages to affect the employee in their use and experience. The designed affordance is the designers sensegiving and the user’s interpretation of it is their sensemaking. Motivational affordance can, through psychological outcomes, lead to behavioural outcomes. To create affordance that signals gamefulness the designer uses game elements to frame the communication messages (cues) of how they want the user to act as a reply. The user’s understanding of the cues is based on their current frame. What knowledge, skill, understanding, etcetera they possess to decrypt the signal of gamefulness.

The game elements mission is to evoke the user’s emotion in order to engage them in the system. Emotions are the highest form of game elements, it is those effects that the motivational affordance wants induced to create connectivity. The emotions must fall within feelings of fun, enjoyment and satisfaction for the user to continue to interact with the system. In order for the user to be able to interpret the game elements they need to be connected to a message of meaning. This message is the narrative of the system, it coordinates the user’s interaction and understanding of challenges, quests, feedback, etcetera. The narrative has three formats, based on the user involvement; embedded, emergent, and interpreted. The narrative should be created based on the users frame and can utilise storytelling as a method to evoke the user’s emotions, intellect and trust by being authentic and fluent. The narrative’s objective is to help the user understand and connect the elements to the overall goal. The communication should drive the engagement loop, that keeps the user motivated, in the form of an ongoing dialog between the user and the designer (mediated by the system). In order for the user to be engaged in the activity they need to be able to identify with the activity’s purpose, be able to adapt the user experience to their own preferences, understand the narrative, and feel immersed in the experience.

For the motivation to have the desired effect, i.e., the continued actual use of the system, it needs to be based on intrinsic benefits. Intrinsic motivation will be the result if the employee can sense: That they have the competence (ability) to manage the challenges that the gamified IT-system hold. That they sense autonomy in that they feel in control. That they sense relatedness, that they can connect their actions to the overall objective.
4.1.2 Communication on the Organisational Level

On the organisational level, it is important that the employees are involved in the process to empower them and for them to gain understanding of the change objective. Their involvement also correlates to the employee’s consent to participate (through free will) in the gamification process based on them understanding the rules, their active engagement and perceived fairness. In the process, it is important that the employees are involved in setting the goals in order for them to internalise and feel that they want to strive to fulfil them. The goals need to be created so that the employee is committed to reaching them, has the ability to do so and that there are no conflicting goals, visions, objectives, etcetera that contradict. To be able to engage the employees the experience must feel secure and available for them to participate in, and relate a feeling of meaningfulness.

In the gamification process it is essential to comprehend the intended users different, existing frames when it comes to games, gamefulness and the adoption of IT-systems to become more game like, as well as their existing frame regarding the aspects that are to be transformed in the change. The employees’ narratives are a key aspect for the organisation to understand how the change can be framed. They help the organisation identify the employees’ knowledge gaps in regards to the implications of the change. Therefore, the organisation need to assess how the change messages should be framed, how the narratives should be laid out, and what type of authentic and fluent stories that support the change objectives and build trust.

The change message should explain the discrepancy and appropriateness of the intended approach. It should convey personal valence, principal support and self-efficacy to counteract the most common feelings of concern. Since the use intention is based on the employee’s attitude, it is important that the change message has both emotional and intellectual resonance based on cognitive and affective aspects.

The acceptant of the change and gamification process of other employees, has a big impact on the individual employee’s attitude. It is, therefore, important that the organisational sense-making and sensegiving process is functional in order for the organisation to create solidarity amongst the employees. To impact the use intention and to get the employees interested in the gamification solution, extrinsic motivation needs to be activated through extrinsic benefits. But it is important what type of extrinsic benefits are communicated. Based on the self-determination theory spectrum extrinsic motivation can be internalised if the employee’s self is in line with the extrinsic motivation. This is when there is the least risk for resistance and ignorance. The motivational factors also must not be on the hygienic scale, e.g., job security or salary, since this will not contribute to increased motivation. The factors need to be aspects that add value, e.g., challenging work or recognition, if they are to increase the employees’ sense of motivation.

When extrinsic motivation is involved it is a fine balance that should not be seen as a way to control the employees. For the extrinsic benefits to work, the employees must feel that they
are informed rather than controlled. If extrinsic rewards are used to convey a sense of, e.g., appreciation or recognition for work well done, it is not presided as a controlling experience, rather as informative and can maintain or enhance intrinsic motivation. To obtain long-term results, the extrinsic motivation needs to be phased into intrinsic motivational factors based on the employees’ feelings of competence, autonomy and relatedness to the change.
5. Method

The aim of this master's thesis is to understand how gamification can be used as a communication tool in internal change processes. This will be accomplished by exploring what role gamification has in relation to communication on two levels, in the organisational process and in the gamified IT-system. When reviewing the available material within the gamification research field, I found that there is a knowledge gap regarding the communicative aspects of gamification. In the material, the communicative results and effects are often mentioned. However, there is very little account for how the communicative aspects are constructed or what is important when constructing them. The focus for this thesis is, therefore, to add input to the knowledge gap. Since the focus is to get a deeper understanding of the communicative patterns, a qualitative method has been selected. A qualitative research method aims to create understanding and explore patterns in society (Trost, 2005). Moreover, the method lets the research process be more flexible and explore new avenues that might arise throughout the research process (Bryman, 1997).

This thesis is based on a social constructionism perspective and takes an interpretivist ontology view. It is based on the assumption that reality is socially constructed by different actors participating in the collective interaction that takes place in everyday life (Alvesson & Sköldberg, 2008). The aim is, therefore, to explore how gamification is a part of the social interplay and how it can help create communicative connections between the different actors. This perspective entails that knowledge is seen to exist not as rational and objective, rather as a part of the actor's subjective perspective and integrated in the interaction with others through intersubjective transfer of meaning (Alvesson & Sköldberg, 2008). This implies that the researcher has to understand how the knowledge is socially constructed in order to explore how to best access it through the actors and their perspectives on reality, events, and objectification of, e.g., signs, symbols, and artefacts. It also means to study if gamification can be institutionalised in the actors’ habitual behaviour within the organisational context (Alvesson & Sköldberg, 2008).

5.1 Research Approach

To be able to explore the research question an abductive approach is used. Since there is no predefined theoretical framework for the researched aspect, the aim has been to create the outlines of a new structure based on previous research and input from empirical examples. An abductive approach focuses on discovering underlying patterns and understanding amongst the research objects. This allows for an ongoing mediation between the theoretical background and empirical findings (Alvesson & Sköldberg, 2008). The aim is to find inspiration and patterns from existing theories that can provide understanding of the domain. The starting point of the research process is to build an overall hypothetic theoretic outline that, when ap-
plied to the empiric results, helps to create an interpretation that provides explanation to the research case. (Alvesson & Sköldberg, 2008).

The outline for this master’s thesis was constructed based on an interdisciplinary literature review in combination with exploring theories relating to the change processes and communication. The gamification literature review disclosed a link to the human psychology research area that focus on motivation, attitude and behaviour. This provided a foundation for understanding how gamification can be used as a tool in a change process. For the communicative aspects, different theories were examined. Based on alignment with the interdisciplinary material, a strategic communication approach to change processes was combined with aspects of sensemaking, such as framing, narratives and storytelling for the outline of the theoretical framework.

During an abductive research process both the theoretical framework and the empirical application are successively adjusted and refined (Alvesson & Sköldberg, 2008). The outline of the theoretical framework is continuously questioned and tweaked during the data gathering to make sure that new aspects are explored and evaluated. This approach enables a continuous increased understanding of the researched subject. An important factor is to keep an open mind to the notion that there might be several approaches that can work and overlap, i.e., there is not one right answer. A risk with using an abductive method is that the continuous questioning of the theoretical framework and empirical results entails that the researcher can be caught in a continuous loop of being open to new explanations and interpretations (Feijs & Thornberg, 2015).

5.2 Research Design

The empirical data gathering process has been divided into two phases. The first phase aims to gather input from experts within the practitioners’ field of gamification. The second phase focus on the organisational aspects of using gamification within an organisation. This structure is enabled by the abductive approach since the aim is to test the theoretical frameworks against the interviewees’ experience on how gamification is planned, designed, implemented and evaluated.

For the first phase interviews will be conducted with the selected experts. All respondents have been contacted to participate with their knowledge, based on their experience and expertise. In connection to each interview an internet search has been performed to gather any relevant material published by the person, their organisation or of them speaking at a public gathering. This material will be examined before the interviews to gather as much background information as possible.

For the second phase representatives from organisations will be interviewed regarding their implementation of gamification as a tool in relation to the organisational operations. Before interviewing the organisations, internet searches have been conducted to gather any public
information regarding the gamification projects. The material will be examined before the interviews to comprehend basic facts about the project and thus enable the interviews to concentrate on the aspects of the research study.

The interviews are planned to take place during a three-week period to enable the interaction between empirical results and theoretic exploration, in conjunction with the data gathering. In those cases that an interviewee mentions or relates to a theoretical aspect that has not been included in the framework outline, this will be noted as an action point to explore further, in order to comprehend if it is an aspect that contributes or deducts from the overall framework.

Trost (2005) recommend that the researcher decides on a fixed number of interviews before beginning the data gathering process. When those interviews have been conducted, the researcher decides if the sampled material is enough or if there is a need to conduct more interviews. Ten interviews have been planned in the research design for this thesis. Seven interviews will be conducted face to face and three interviews will be done through Skype or telephone. An overview of the empirical material will be conducted when all interviews have been completed in order to determine if the gathered material is sufficient. A final analysis of the entire material will be performed to aggregate the overall empirical input and help answer the research question.

5.3 Sample Selection

The sample selection in a qualitative study focus on identifying individuals that possesses information and knowledge that is needed for the specific research study. Therefore, there is no need for a statistically representative sample of a specific population. The sample needs to be heterogenic in that there should be some variation in the sample variables, however, still with relevance to the investigated topic (Trost, 2005).

The sample selection for this study was done through subjective selection. The individuals were selected based on the researches qualified assessment of relevant aspects for the study (Harboe, 2013). The subjective selection was done through a strategic selection, which means that the sample was identified based on a number of characteristics. A first sample was made where most of the characteristics was determined to be met. The sample was then organised according to the different characteristics and a final selection was made with potential interviewees that match all important aspects for the research study (Trost, 2005).

5.3.1 Expert Selection

In the sample selection of the experts, the characteristic criteria that was set were that the individual should work in a consultancy organisation that offers gamification services to other organisations. Based on this, there were number of secondary characteristics that focused on
the heterogeneous aspects of the sample. The services could be in different form such as strategic planning, operational implementation, SaaS (software as a service) solutions, bespoke software solutions, etcetera. The individual could have different types of roles within the consultancy organisation such as the overall manager, strategy consultant, and designer or developer of gamified solutions. To find these individuals, searches were conducted through search engines (Google and Yahoo), company listings (Eniro and UC Allabolag) and through social networks (LinkedIn and Facebook). The keywords used were gamification and *spelifiering* (Swedish translation of gamification). On LinkedIn, a search for skills matching gamification was also done to identify people matching this proficiency. Some consultants mentioned other experts that should be contacted based on their influence within the gamification community in Sweden. All of these were also assessed and if they met the set criteria an interview request was sent.

Fifteen consultancy organisations and some individual consultants were identified. They were characterised based on their service offering and suitable individuals within the organisation were identified based on their web pages. Seventeen individuals were contacted through email. Most often, one representative per organisation was selected and contacted but in some instances a secondary person was contacted. Of the contacted people twelve replied that they were willing to participate. When the details of the interview time and place was being finalised four experts dropped out.

### 5.3.2 Case Selection

The selection of organisations was more challenging then the expert selection. The set characteristics were that the organisation should have started or finalised an internal gamification process, with the objective to change some aspect of their operational process. This could either be connected to everyday work assignments for employees or aspects such as training that occurred less seldom but on a regular basis. All experts that agreed to an interview were asked if they knew of an organisation that had implemented gamification with the defined objective. The search for sample organisations was conducted through reading case examples on gamification implementations, internet searches and by searching for people with gamification in their work title on LinkedIn. Through this process six organisations that matched the characteristics was identified. The next step was to find the right contact person within the organisation. This was done by studying the organisations’ web pages, LinkedIn pages, and through internet searches. Through this process four organisations, where the project owner was possible to identify, were sampled. All four organisations were contacted, two organisations replied that they did not have the possibility to partake and two organisations replied that they could participate.
5.4 Research Setting

The sample selection is presented below with a short summary of the case organisations’ change projects and an overview of the contributing experts. All the interviewees have consented to being presented in the thesis.

5.4.1 Gamification Experts

<table>
<thead>
<tr>
<th>Participating Gamification Experts Overview</th>
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<tbody>
<tr>
<td>Name</td>
</tr>
<tr>
<td>Mats Björk</td>
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<tr>
<td>Jonas Hammarberg</td>
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<td>Mikolaj Dymek</td>
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<td>Arnold Wittman</td>
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<tr>
<td>Ola Jansson</td>
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<tr>
<td>Andreas Stjärnhem</td>
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<tr>
<td>Max Valentin</td>
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<tr>
<td>Susanne Timsjö*</td>
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</tbody>
</table>

*Susanne Timsjö was interviewed both in relation to her role in the Stora Enso project and as a general expert on gamification based on her previous knowledge and experience within the field.

5.4.2 Skutskär Mill, Stora Enso (Case Organisation)

Interviewees: Lasse Aspelin, Production Manager at Skutskär Mill and Susanne Timsjö, Program Manager at PiiA and Technical Project Manager for the project Gamification i industriin (gamification in the industry sector).

Skutskär Mill, one of Stora Ensos paper mills in Sweden, is in the process of implementing gamification in connection to a bigger external innovation project Gamification i industriin driven by the government sponsored industry organisation PiiA. The main focus is to create a new visual interface that highlights routine work assignments for the main users, the control room operators. The purpose is for the users to better observe and control their assignments, to motivate them to perform all the assignments before the end of their shift, and to make the work more enjoyable. The gamified system shows the operators what assignments that need to be done. It tracks and shows the assignment completion performance by changing the colour of the assignments, when completed. This is intended to both help the operators know what is left to do, be a platform for planning assignments and also give the users a feeling of...
accomplishment when they see their own contribution. The system also helps to track and store information about different samples and measurements so that it is easier for the operators to trace and monitor the overall production process. In the results and analysis presentation, this case organisation will be referred to as Stora Enso.

5.4.3 The Swedish Police Authority, Region Stockholm (Case Organisation)

Interviewee: Caroline Nordström, Project Manager Gamification and Digital Engagement.

The Swedish Police Authority, Polismyndigheten, performed a reorganisation in 2015 and as a result of that, more of the organisation’s leadership is now managed remotely. A new digital tool has been created to support new ways for the employees and leaders to interact, learn and share knowledge. It is now being tested as a pilot project with 300 participants. The gamified IT-system is created as a tool for organisational teams. There are different roles, the team leader has a user leader role and the team members have a user employee role. The system has content material that the users interact with through reading, watching, and performing tasks. This enables the leaders to know where the employees are in their progress. The employees also have a personalised pipeline that they can use to organise and track performance on personal tasks and goals. Each team has their own social interaction space where they can communicate and interact with each other. The content in the system is created in connection to focus themes that have been chosen based on the organisation’s overall objectives. In the results and analysis presentation, the case organisation will be referred to as Polismyndigheten.

5.5 Semi Structured Interviews

Qualitative semi structured interviews have been selected as the method for the study. It is a suitable choice when the objective is to access deeper understanding of a specific topic. The interview format enables the researcher to explore the subject through the interview person’s insights and knowledge (Marshall & Rossman, 2011).

When planning and conducting interviews it is important to understand what type of questions should be asked in order to obtain appropriate empirical data. Questions can be either analytical or theoretical. The analytical questions are on a principal level, where the researcher seeks input to be able to answer the main research question. These types of questions are not used in the actual interview. The theoretical questions are the ones that are posed to the interviewee about their perception, thoughts, and experiences (Trost, 2005). To prepare for the interviews, analytical questions have been used to help determine the overall structure of the interview guide. The focus has been to help the researcher guide the interviewees in relation to the theoretical questions. However, the guide and questions still give the interviewees opportunity to express their own knowledge and follow their own path of thought.
During the interview, it is important that the interviewee’s way of framing and structuring their responses is not restricted, to enable the individual’s perspective of the phenomenon rather than the researcher’s (Marshall & Rossman, 2011). Therefore, in the interview situation, the interviewee will be given time to explain their thinking and follow up questions will be used to deepen the interviewee’s input on important aspects. All interviews will be recorded and transcribed, the interviewees’ consent has been asked beforehand. Moreover, the interviewer will take notes on both verbal answers and observations of the interviewees’ non-verbal communication.

5.5.1 Structure and Standardisation

In a qualitative study the amount of structuring and standardising is limited, not all aspects can or should be controlled. In qualitative interviews, structure refers to if the interview keeps to the set topic throughout the interview (Trost, 2005). One of qualitative methods’ strong points is that it allows some variation in the data gathering. This means that there is a fine balance required of the researcher to not structure the data gathering too much since it might limit the possible input.

The empirical study has been infused with as much structure and standardising as needed without limiting the possibilities to access important data. In the preparation work all prospective interviewees have been contacted with the same e-mail template, which explained the research topic, described the inquiry, and provided information about the interviewer. This means that all interviewees have been given the same standardised prerequisite before the interview is conducted. For the interview situation, when possible, the interviews will be conducted face to face in order to try to control the environment and situation. The suggested place is the interviewee’s office to offer them a safe spot where they feel comfortable. For some interviews the office environment was not a viable option, instead a nearby café has been chosen. The interview guide has been prepared so that it suggests possible follow up questions dependent on the interviewee’s answers. In the interview situation, all interviewees will be given the same introduction and instructions about the set up for their participation.

5.6 Analysis Method

Qualitative content analysis has been selected as the analysis method for processing the empirical material. The method is characterised by three features: it is flexible, it is systematic and it reduces data (Bryman & Nilsson, 1997). The content analysis method can be seen as a series of steps that the researcher takes when processing the material (Flick, 2014). The analysis entails that the researcher performs an analysis of the material by looking for messages of meaning and other communicative valuable content. The main goal is to condense the data that has been gathered to help answer the research question (Bryman & Nilsson, 1997). This
is achieved by systematically processing the data to enable that successive parts of the data are assigned to categories in the chosen framework (Flick, 2014).

There are three types of qualitative content analysis method: explicative, summative and structuring (Flick, 2014). For the analysis process, the summative approach has been chosen. It entails processing the raw data material and selecting relevant aspects that are bundled with similar material, and summarised. The summarising makes the data more abstract from the concrete formulations focusing on the meaning of the statements in connection to the research question (Flick, 2014).

5.6.1 Framework Matrix Method
For the analysis, the Framework method based on a matrix format will be used. The approach helps the researcher index and categorise raw material in order to find patterns and build understanding, on how to connect data from different interviews (Ritchie, Spence & William, 2003). A risk with content analysis is that the researcher loses the link to the original data when processing it to a more abstract format. However, this method is used to reduce data through summarising and synthesising it in a continuous and iterative process, whilst keeping the links to the original material. This enables the researcher to move up and down, between different levels of abstraction, without losing the connection to the original data source.

The method has two main stages, the first involves managing the data, and the second making sense of the data through descriptive or explanatory accounts (Ritchie, Spence & William, 2003). The basis for this approach is that the researcher builds a comprehensive structure based on key themes, concepts and emergent categories. These evolve through the familiarisation process, where the researcher goes through the raw data in order to find the foundation for the later stage of labelling. The data is indexed rather than coded since the themes and categories are developed from working with the material, rather than predetermined. Ritchie, Spence and William (2003) describes four phases that the analysis process should entail:

Figure 5: The framework matrix content analysis method (Ritchie, Spence & William, 2003).
The analysis will follow the explained steps and be summarised in a matrix structure containing the analysed content. The material will then be interconnected to the research question and sub questions, in order to determine how it relates and should be presented.

In the analysis, it is important that the researcher keeps an objective attitude towards the collected data. Some key aspects were, therefore, identified and will be considered in the assessment and interpretation of the results. The following considerations will be made; is the information from a first hand or second hand source, is there any particular external condition that might influence the information that needs to be considered, is there any underlying personal interest for the interviewees that can affect the raw material, or are there other sources confirming or conflicting the information (Harboe, 2013).

5.7 Ethics

In a research study, it is important to explore ethical considerations concerning how data is gathered and used (Trost, 2005). For this master’s thesis, the ethical aspects have been incorporated and evaluated throughout the process. The participating interviewees have been given an explanation of the purpose of their participation and how the material is going to be used. All interviewees have consented to being interviewed based on this and for the interviews to be recorded. Some individuals have expressed a wish to read their contribution before the thesis is published. There is always a fine balance between obliging the participating person’s wishes and not compromising the integrity of the data that has been gathered. Therefore, the material will be given to the interviewees that asked to see their part, but no changes will be made if not for reasons of personal integrity or privacy regulations. If there are aspects that the interviewee does not feel that they can stand behind or want published, the researcher will make an ethical evaluation of how the content can be anonymised or if it should be removed based on potential consequences.
6. Results and Analysis

In this section, the results from the empirical data will be presented and analysed based on the theoretical framework. This chapter is structured according to the themes that have been used to index, understand, and analyse the data. The results and analysis are presented in combination, per theme. Quotes from the experts and examples from the case organisations will be used to highlight specific aspects.

6.1 Gamification, How It Works

The empirical data makes it clear that the term gamification can mean vastly different things, depending on the context in which it is applied in and the background of the people involved. It borrows from different fields of expertise and is, therefore, open to a lot of different interpretations. The experts view gamification as a method that is inspired by games, through ideas, thinking, dynamics, mechanics, components, etcetera. In general, it is described by the interviewees as a mix of technical aspects such as platform, interface, and IT-system, in combination with social aspects such as leadership, communication, design pattern, and socialisation.

*Applying gamification helps to create a living culture in something. This is done by applying game thinking. Since games are the most complex self-organising system created for people. There is a lot that can be used, based on how games work.*
/Ola Jansson

Gamification is essentially a sociotechnical perspective on how to impact employees in their role as users of digital interfaces and IT-systems. Therefore, the focus should be on gamification’s link to human behaviour psychology, i.e., what effects do different game elements have on the user, in order to create effective gamification solutions.

One aspect, highlighted by several of the experts, is that gamification has been too focused on the visual aspects of games and the application of different kinds of reward structures. These are not aspects that create sustainable user engagement and interest. Instead it is the social aspect of gamification that gives the user a meaning with their interaction.

*Gamification works because we can study the human behaviour connected to it, for example, how people behave when they get a goal to work towards.*
/Andreas Stjärnhem
Even if none of the interviewees mentioned motivational affordance it is clear that the purpose of using gamification is to motivate the user to act in a certain way. That is, to impact their behavioural patterns and to ultimately influence their sensemaking journey.

Based on the experts’ input, it becomes clear that gamification should be based on the organisation’s unique problem. In a change process, that refers to the reason for the needed transformation. An organisation can use this, in combination with their values and culture, to create their so-called game play. Using game elements is the method for impacting the users, however, for it to have any effect gamification needs to be incorporated into the specific context that is created by the organisation and its members. Therefore, the foundational building blocks that drive the intended purpose, i.e., the core of the problem, need to be identified and analysed. The results are then used to create the game engine, i.e., the driver of the game elements and the interaction with the user.

It is important that the analysis and constructed game engine is adapted to the organisation’s unique characteristics so that it does not negatively impact their competitive strength. Since the game engine is created based on the organisations unique context, it becomes connected to the employee’s organisational reality.

### 6.1.1 Gamification Usefulness

For the case organisations, gamification has been chosen because of its ability to create engagement and to drive the user interaction in relation to digital tools in the work place. The main focus for Stora Enso has been to make work tasks that are not perceived as stimulating or fun, more enjoyable. For Polismyndigheten the main reason has been to get employees involved in new operational processes, and as a digital tool in connection with the reorganisation.

The benefits of using gamification mentioned by the experts is that it is more precise than regular communication in change processes, since it involves the user in an ongoing interaction. Moreover, it can drive knowledge, collaboration, and create lasting development through inspiration and problem solving.

The results show that in a change situation, the game elements can be chosen based on what has been identified as the main drivers of the transformation as a whole. The game elements help to move the user interaction forward and support the employee’s transformation journey. By using gamification, the user is actively involved and their interaction means that they make conscious decisions relating to their own perception of the change. The employee sees and acts based on new perspectives. This makes the involved aspects more concrete and supports the employee process in gaining new insights, knowledge and understanding.
6.2 Motivation

There were some different perspectives on motivation amongst the interviewees. There were some experts that did not divide motivation into intrinsic and extrinsic, claiming that motivation is basically what an employee is willing to do in order to get something that they want. Based on this perspective, the organisation just needs to figure out what that thing is in order to motivate the employee. The other perspective, the more common one, was that the user’s motivation is initially based on extrinsic aspects. However, for gamification to have a more long-term effect the motivation needs to be internalised so that the employees are driven by intrinsic motivation further along in the process, i.e., in the end game. This means that, to get the process started extrinsic benefits need to be incentivised, but as the user gets involved and engaged those should be transformed into intrinsic benefits.

Over time the vision, the dream, needs to be communicated. It should be based on shared values and harmonise with the objectives. Then intrinsic motivation can occur. Best case scenario the conversion happens. /Mats Björk

At Stora Enso the employees are motivated by making their accomplishments more visible when they have completed a routine task, both for the employee themselves and for the rest of the team. This is the main function of the gamified system, it connects to the user’s own feeling of accomplishment, but can also generate external rewards such as praise and attention.

The organisation needs to first understand what it is that motivates the user to dedicate their time and attention to something new. They then have to understand how the gamified system connects to the employee’s own internal motivational factors. The external motivation can be based on what the user needs or wants to improve themselves, or if they have a problem in their current work situation that can be solved. Extrinsic motivation can be connected to these aspects and in line with the user’s own self. For the user to be intrinsically motivated, they need to understand the higher purpose, and share the vision and objectives that are the reasons for the process. The objectives and vision can be connected to aspects that the user cares about, so that they are motivated by their own contribution to the progress and the higher cause.

Motivation is about what a person is willing to do to be able to get what they want. /Ola Jansson

Motivational factors are the user’s subjective experience and can vary a lot. Therefore, the benefits need to connect to the user’s background, interest, and experience regarding what types of elements, attributes, messages, etcetera that are relevant for the specific user. The
game elements can help the user to not only see what they accomplish, but also feel it in relation to their own motivation.

The results from the analysis is in line with the self-determination theory (Deci & Ryan, 1985 and Ryan & Deci, 2000) point of view of how an employee’s motivation functions and how it can go from extrinsic to intrinsic. That is, the employee’s internalisation of, e.g., goals and tasks, plays an important role in long-term motivation.

*Design that really captures the user needs, that is challenging enough so the user does not get bored, but not too hard so the user get stressed. A solution that adjust along the player journey or the user’s skill level. A system that both newbies and experts can be motivated by.* /Susanne Timsjö

The experts also emphasise that an important factor to keep the user motivated is that the gamified system continues to engage by being challenging enough, but not too difficult so the user gives up. Along the user journey, the progress and actions need to be factored in so that the level is in line with the user’s skill level. Variation, new features, exploring new areas, learning, and randomness are some aspects that can help keep the user motivated. This means that the journey needs to be continually intriguing and meaningful, to keep the user engaged and motivated. For the users, especially the more digitally mature, it is also important that hygiene factors are in order so that they feel comfortable and secure. That allows them to focus more on additional factors that can help enable intrinsic motivation.

These findings connect to Herzberg’s dual-factor theory (2003) which explains that what motivates an employee is not the same as what demotivates, that the basic hygiene factors need to be under control for employees to be increasingly satisfied and motivated. This is also in line with how progression can keep users engaged (Werbach & Hunter, 2012; Veltsos, 2017) and how employee’s feelings of competence and autonomy support motivation (Ryan & Deci, 2000).

For Polismyndigheten it has been important that the users engage with the digital tool for their own sake, and to get them to interact because they want to. In order to enable this, the actual use comes from the user’s own motivation and all push functionalities in the application were turned off. This means that it is the user’s own free will and curiosity that drives them to engage with the IT-system. Furthermore, in the connected communication to the users, the emphasis has not been on external rewards. Rather, the messages have focused on why the users should get involved for their own benefit, and highlighted collaboration for the teams.

If the motivational factors are created correctly for the intended users, gamification can have a pull effect. That is, the users return to the interaction with the IT-system based on their own free will and interest.
User engagement is crucial in order to motivate the employee in the interaction. This finding relates to factors that engage users such as identity, adaptively, immersion (Benyon, 2014) and that they can be constructed in an engagement loop (Werbach & Hunter, 2012) to keep users motivated.

### 6.2.1 Co-creation and User Involvement

One way to keep the users motivated, based on the results, is to involve them and enable co-creation aspects in the gamified system. This can be done through the social component in the user journey such as network element. This allows the user to act as an ambassador for the gamified system and invite other potential users, in order to involve more people in the organisation. The user can also participate in coming up with ideas and creating content in the gamified IT-system. This impacts the user’s journey for themselves and others, so that they feel that they can influence the situation.

Gamification can, based on this analysis, be seen as contributing to the three processes; information dissemination, soliciting input and socialisation, that have a big impact on the acceptance and success of a transformation (Lewis, 2011). User involvement also connects to employee’s free will to participate (Mollick & Rothbard, 2014).

### 6.3 Feedback

Gamification has a strong link to feedback and for many of the interviewees this is the main function and reason for applying gamification. Based on the results, it is clear that game elements can be incorporated based on the way the user is presented with problems, challenges, or tasks in order to reach a set goal. The user’s way of acting renders feedback in the interaction with the IT-system, which is intended to inspire them and to show if their performance is in line with achieving the goal. The feedback can come in many different formats, e.g., progression bars that show how far the user has come, visualisations showing their contribution, or expressions of encouragement. It is important that the feedback is relevant and something that the employee can relate to for it to have the desired effect. Based on the input from the experts, the feedback should be based on data from the system and be given to the user directly in connection to their actions, to reinforce behaviour that is in line with the desired outcome.

*To get direct feedback is a basic component of what makes people feel good. They do something and want to see if they succeeded, was the performance good enough. This direct feedback is something that is pretty self-explanatory.*

/Susanne Timsjö
At Stora Enso feedback is the main focus for the gamified system. The operators themselves came up with the idea that they wanted to visualise and track the progress of their own work. The operators see visual results of their performed routine tasks directly in the IT-system. This also helps the team and leaders to encourage each other in the work process.

Feedback is a comprehensive way to extend how an organisation confirms and recognises employees’ behaviour and performance in connection to set objectives. When gamification is created to support social interaction, feedback loops created through game elements help drive the user’s interaction with each other in addition to the interaction with the IT-system. This connects to the theoretical aspects that drive the sensemaking and sensegiving process, in the theoretical framework (Iveroth & Hallencreuitz, 2016).

For Polismyndigheten the gamified system gives the managers, who use the system as a digital tool in their leadership, instant feedback regarding the employee’s actions, so that they can see if the employees have understood and acted on, e.g., provided information. Furthermore, the system gives the employees feedback when they complete different tasks and challenges, to enable them to see their own progress.

Gamification can be seen as an extension of the organisational leadership, the employees can more frequently get input regarding their performance which keeps them motivated and engaged. The feedback also helps and confirms the employee’s understanding of the situation and their part of the larger transformation.

The analysis shows that feedback can help eliminate concerns of uncertainty and performance, by often and quickly showing the employee their progress, their contribution, or where they are in relation to the bigger whole (Lewis, 2011). The feedback also reminds the user of the overall objective of their performance and gives them a purpose for their actions. An important factor to keep the employees engaged is the feeling of meaningfulness (Welch, 2011). The feedback furthermore works as a driving force for the employee to feel increasingly intrinsically motivated, since it reinforces their competence, supports their experience of autonomy, and helps them relate their actions to a greater purpose (Ryan & Deci, 2000). Feedback is also a part of the organisation’s change message, supporting the employee’s experience of self-efficacy, discrepancy, personal valance, etcetera (Bernerth, 2004; Lewis, 2011; Iveroth & Hallencreuitz, 2016).

6.4 Enhancing and Enabling Effects

One of gamification’s main positive effects, highlighted by most of the experts, can be summarised as the ability to enable and enhance already existing engagement, interest, etcetera relating to a core activity. The core activity is something that the user performs and the application of game elements can improve the user’s relation to that process. However, an important aspect is that gamification cannot enhance something that does not already exist.
There must be a foundation of engagement, interest, etcetera for the effect to be impacted. It is, therefore, important to first identify and understand the core activity, and how the user relates to it. This form the foundation for creating gamification that enables and enhances the effects to create a better user experience.

*Gamification’s strengths are the enabling possibilities together with that the interaction runs over time, and that it creates enjoyment and stimulates.*

/Arnold Wittman

For gamification to have an enhancing effect, the user needs to return and continue their user journey. That is accomplished if the gamified solution has enough complexity and depth to keep the user intrigued and curious. The driving force should be the user’s own actions and how those impact the overall journey.

*The complexity and the depth of a gamification solution is what makes users return, that is essential for success.* /Ola Jansson

The analysis shows that gamification’s enabling and enhancing effects are an important aspect that can help drive the change process forward. These qualities can be seen as a result of the motivational affordance that the designer has been able to create to evoke the user’s engagement. Enhancing and enabling can furthermore help in the employee’s sensemaking process through, e.g., supporting enactment, the ongoing updating of impressions, and judgment of plausibility (Weick, 2009; Iveroth & Hallencreuitz, 2016).

### 6.5 Communicating Messages and Conveying Meaning

The expert’s input is that the communicative aspects of gamification in the IT-system must match the overall communication in the organisation. The messages that prompt the employees to do certain things and explain the context must match the overall message that is communicated by management and organisational leaders. If there is a discrepancy, the user will feel confused, uncommitted, and might not engage in interaction with the IT-system. It might demotivate the employee so that they resist the intended purpose with using gamification.

*The elements in the gamified system must match the real-world elements in that it all must be connected into one whole. What the manager communicates must match the message in the system. If not there will be a conflict of interest.* /Mats Björk
The communication cannot be concentrated to and embedded into the gamification solution as a stand-alone. It needs to be part of a bigger whole in the change process and supported by other channels of communication.

*Gamification needs to be imbedded in other communication. It needs a context, be driven by communication in other channels and interconnected in a transmedia way. The technical aspects are just tools. /Mikolaj Dymek*

For Polismyndigheten the project manager creates content for the gamified tool that explains the context and creates an environment that the user wants to spend time in. Content is continuously added and follows a pre-planned theme structure. The themes have been chosen to help the user reach the overall objective with the gamified IT-system. The project manager expresses that her communicative skills are really valuable in the project. Furthermore, like any internal communication channel, it is an ongoing process that requires input and regular action from the people responsible. Both the overall organisational communication and the communication in the gamified IT-system should paint a picture of the vision, objectives, challenge, and the journey that the organisation is on in order to reach the end game, i.e., the transformed state. Communication starts the process and gets the employees in motion and interacting with the IT-system. It explains the context, rules, and objectives so the employee understands why they are part of the change journey, what they are contributing too, how they should act, etcetera.

*Gamification is communication a hundred percent on the user’s terms. It is genuine communication. /Mats Björk*

Games have a great expressive potential, more than classic linear media channels, due to the interactive and participative aspects of their structure. Since the user is an active participant, the potential effect of communicative messages can be more profound compared to other channels.

The messages need to follow the user’s journey and build on what is meaningful for them. It, furthermore, needs to provide concrete meaning for the employee to be active of their own free will. It is important to bear in mind that games can be perceived as rather normative, since they are an abstraction and simplification of a reality in combination with only focusing on one or a few particular aspects. Gamification can be more or less normative since it is created as a part of and implemented in an IT-system that is part of the user’s reality. Nevertheless, the communicated objectives and rules carry a lot of governance since the user needs to consent to those in order to participate.

The analysis connects the communicative possibilities of gamification to theoretical aspects of the change message (Bernerth, 2004; Lewis, 2011; Iveroth & Hallencreutz, 2016)
and its five key components. It highlights the need for one cohesive message that is used in the different stages of the process. It also connects to the strategic and tactical aspects of change communication (Clampitt & Berk, 1996) in that it is important to plan for how the communication will be performed in relation to the organisation’s strategic communication. Furthermore, the analysis highlights that gamification can help to create meaningful and available communication through the ongoing interaction (Welch, 2011).

6.6 Narrative and Storytelling

One way of conveying messages and meaning in connection to gamification is to utilise the narrative possibilities of the IT-system and organisation. As explained by the experts, a narrative can be seen as the element that helps the user along their journey. It explains the context in relation to the different game elements and provides a sense of meaning to the challenges, problems, tasks, etcetera that the user is given.

The narrative is very much an important aspect when gamification is used in internal change processes. It is about creating a narrative that people can internalise so they know where they are going in the transformation and why they are doing what they do. /Andreas Stjärnhem

This is in line with the narratology perspective of games. It sees games as a narrative and that the user experiences different turning points in the player journey that makes it a sensemaking experience. This also relates to organisational sensemaking artefacts, metaphors and symbols playing an important role in the framing process and the creation of a shared narrative (Deetz, Tracy & Simpson, 2000; Iveroth & Hallencruitz, 2016). The IT system can be seen as a symbol or artefact that helps convey meaning.

In games, a narrative can be more or less present depending on what type of game it is. In gamification, there are some different perspectives on the use of narratives amongst the experts. Some claim that a narrative is optional, that it can be used if needed but it is not mandatory. Other experts claim that it always exists, since gamification is not a full game based on a fictive reality, the narrative is the real context that gamification is applied to.

When applied in an internal change process there is already a narrative that each employee has "My job is" and "Who am I in relation to us". That is the emotional connection that can become a story. Because all stories are about people and feelings, and how that relates to the work place with all its rules and structures. This narrative is strong so there is no need to add any imaginary narrative on top of that. /Ola Jansson
In an internal change process the user’s existing narrative relates to their understanding of who they are in relation to the organisation. That is the emotional foundation that can be used to create stories that explain the change and its ideal future state. It is an organisational story with a clear goal; to impact the employee’s inner image. The function of the game elements is to drive the story forward or backward.

The narrative can also give the user needed structure. When people are faced with new or changing situations they seek structure to help them understand and make sense of what is happening. Without structure the user might feel that the change creates chaos and disorder. Therefore, it is important that the narrative is clear and explicit.

The narrative and stories can furthermore help to share knowledge within the organisation. They can convey both explicit information that the employees need to know to be able to manage their challenges, tasks, assignments, etcetera, and implicit knowledge the user can learn through the rules that help them use the gamified IT-system.

The analysis shows that the narrative works as a framework that helps the employee understand where they are in relation to the change process. Through stories, the vision and objectives of the change process can be explained.

These findings relate to the three phases of narrative; embedded, emergent, and interpreted (Ruhi, 2015). These have been shown to play an important role in gamification. The narrative and stories are created in an ongoing collaboration between the organisational members, based on the employee’s and the organisational leader’s frames (Deetz, Tracy & Simpson, 2000; Miller, 2009; Lewis, 2011; Iveroth & Hallencreutz, 2016). The process is used to influence how different events and actions are interpreted (Deetz, Tracy & Simpson, 2000). The stories can help the user relate to the change and accept it (Brown et al., 2005; Forman, 2013).

The biggest need for a narrative, based on the experts’ input, is during the on-boarding or activation phase of the use, i.e., when the employee is getting to know the IT-system and learning how to interact with it. A narrative helps to capture the attention of the employee, making them interested and intrigued with the presented challenge.

*How can an inspiring story be created about this work environment? What is inspiring, how can we translate what is actually being done to something that motivates the employees. This is something fundamental that is always included in games that should be considered.* /Susanne Timsjö

For stories about the workplace and organisation to be inspirational, they should relate to the employee’s frame of reference. How something they do or accomplish can be put into a higher meaning context that is meaningful for the employee. These stories need to be incorporated with the rest of the narrative and game elements.
These findings connect to storytelling’s role in the sensemaking process and how the contextual facts can be set to relate to the employee’s frames (Forman, 2013; Iveroth & Hallencreutz, 2016)

6.7 Goals and Goal Setting

Most of the experts emphasise that goals are a necessary part of what makes gamification an effective tool. There are two types of goals, the overall effect goals, i.e., the purpose and objective of the organisation, and the concrete goals that the user interacts with in the gamified IT-system. The concrete goals should be connected to the overall organisational purpose so that the user’s goals are a breakdown of the overall objective. At Polismyndigheten each user can enter their own goals and tasks in a private pipeline that is intended to enable the user to follow their own progress.

*Breaking down the purpose into different subsets is goal setting in the gamification process.* /Mats Björk

For the user to feel that the goals are theirs to achieve, they need to be adapted and harmonise with the employee’s preferences and frame of reference. The goals are connected to everything from visual elements, such as progress bars in the IT-system, to the overall challenge that the employee is given to help solve.

The communicative aspects of gamification need to be connected to the goals in some way. It can be either the overall objective or the concrete goals that the employees strive to achieve in their daily work. The goals should be measurable and the employee should be able to track their own progress to inspire them to continue the journey.

At Stora Enso an important factor for the organisation is that gamification should not be a way for different teams to compete with each other. Rather, it is a tool for strengthening the feeling of collaboration, based on that all teams help to contribute to the factory’s shared production goal. This means that the goal every employee should strive towards is that the factory performs at its best, to be able to compete in the external marketplace.

This implies that it is important to intentionally choose goals that promote the values of the organisation, e.g., collaboration rather than competition amongst employees.

The findings are in line with goal setting theory that stipulates that goals need to be reachable, that the employee is committed to the goal, and that there are no conflicting goals (Locke & Latham, 2006). It furthermore connects to the fact that competition amongst employees can demotivate and by extension block intrinsic motivation (Deci & Ryan, 1985).
6.8 Transparency

For gamification to work in a change process there needs to be transparency regarding the reasons for using gamification, and how it is used within the organisation. All interviewees agree that it is crucial that the organisation is open and clear about their objectives with using gamification, so that it is not seen as a management tool for manipulation or control.

“There needs to be transparency, real insight and understanding of what the objective is with the intended effects and how it contributes to the organisation in a positive way. Then the employees can accept since it is not focused on being a control function but rather on development, to explore, learn new things and ultimately create change.” /Arnold Wittman.

The intended purpose is available for employees to understand through the organisation's transparency. This helps them to feel secure and to be able to interpret the purpose into something meaningful for themselves.

Within Polismyndigheten gamification is used to help create transparency in the organisation in many ways. Both when it comes to the purpose and objective, moreover, by inviting and prompting the employees to reflect and voice their opinions.

The organisation should involve the employee in the process for them to be able to provide input and to feel secure with the intended purpose. In being transparent the organisation shows the employee that they do not have any hidden agenda with using gamification as a part of the change process.

As described above, transparency helps to create employee engagement Welch (2011). It furthermore helps the employees in their sensemaking process by allowing them to interpret the circumstances and events that affect them (Weick, 2009). This contributes to organisational sensemaking and is a way for the change leaders to encourage two-way communication (Deetz, Tracy & Simpson, 2000; Brown et al., 2005; Forman, 2013; Iveroth & Hallencreutz, 2016). It furthermore helps the organisation check if the employees have understood the discrepancy and appropriateness of the change. Asking the employees to share their perception is a way of asking them to share their stories and their narrative of the change (Bernerth, 2004; Lewis, 2011; Iveroth & Hallencreutz, 2016).

6.9 Management, Leadership and the Organisation

The experts highlight that when gamification is used in relation to an organisational change, it should be seen as a strategic tool, that can help the organisation create new behavioural pat-
terns through employee interaction and active participation in the transformation. There needs to be a long-term plan for how the initiative connects to the organisation’s DNA, values, culture, etcetera.

*The initiative needs to be taken on top management level, this is a strategic tool to create new behavioural patterns to be able to reach goals and vision. If the management team is not involved the focus for the initiative will be wrong.*

/Jonas Hammarberg

At Stora Enso the end users, the operators, were involved throughout the process of developing the main concept. The operators were both interviewed and invited to participate in brainstorming sessions.

If gamification is developed solely on what management thinks employees will accept and relate to, there is a big risk that their perception is wrong and that gamification will not contribute to employees understanding and participation in the change process. A good way to avoid this is to involve the employees early in the process. To let them come up with ideas and provide input on what and how things can be gamified.

Another important aspect, highlighted by the experts, is that the management team and leaders need to be involved and actively support the gamification initiative. A good way of showing that they believe in the approach is for them to play an active role. This can be done either by them using the gamified IT-system on the same terms as the rest of the employees or that different roles are incorporated into the IT-system, something that is common in games.

*How can we involve the management and leaders so they actively participate in the gamification experience? Their performance evaluated as the rest of the users. In games, there is often different categories of users so that can be transferred to gamification.*

/Ola Jansson

Polismyndigheten have two types of users, the team leaders and the team members, i.e., managers and employees. The two types of users have different roles, tasks, functions, etcetera in the IT-system. Their use of the digital tool interacts with each other rather than happen in parallel with no interconnection. The gamified system, therefore, becomes an extension of the manager – employee relationship.

Used this way, gamification extends from the IT-system to being part of the organisations overall work processes. By being actively involved, the manager acts as a leader in the IT-system and performs different tasks, related to their role and responsibilities, then the employee. If management is actively participating it is important that the rules are clear and connected to both the official and unofficial rules on the organisational level.
The results and analysis highlight the importance of principal support in connection to change communication, and how that can be realised in line with the change message theory (Bernerth, 2004; Lewis, 2011; Iveroth & Hallencreutz, 2016). Gamification is also explained as a strategic tool in connection to how to communicate change (Clampitt & Berk, 1996). Furthermore, it connects how stories can be used for many different purposes during the change, e.g., in both horizontal and vertical communication based on leader involvement (Forman, 2013; Iveroth & Hallencreutz, 2016).

**6.10 Users**

In games one of the most important drivers, based on the experts’ input, is that the user can make the experience into their own. One user’s experience is never the same as another’s, although the practical parts might be the same. However, below the surface they have different perspectives on how to approach a task, how they experience feedback, what they enjoy and think is fun, etcetera. The user adds their own background, knowledge, beliefs, and values to the experience and creates something unique. Gamification, therefore, needs to be adjusted in response to the user’s experience so that the user feels they get something meaningful back.

*If applied based on quick fixes and short term reward structure the risk is that it makes the experience shallower rather than deepening it. But if the user can feel that they became smarter, more knowledgeable, contributed, etcetera then the change process can be deepened. /*Andreas Stjärnhem*

It is, therefore, good to be able to accommodate different skill levels and preferences by enabling customisation for the employee. Gamification should furthermore be designed so that the employee has time to analytically contemplate, to create a stronger connection with their own frame of reference.

When it comes to the user’s adaptability and reaction to gamification, the experts’ input make it clear that psychological factors have a greater impact than the demographic factor. Prerequisite and digital maturity are factors that impact the employee’s relationship to the gamified system. For the employee, social components are important in relation to gamification, and they can be both real time and asynchronous.

*It is the user’s psychological rather than demographic characteristics that have the greatest impact on their reaction and relationship to games and gamification. /*Max Valentin*
However, most of the experts agree that the generation shift has an impact on gamification. Older generations might perceive that games in the workplace are not appropriate or not stimulating, depending on how it is communicated and how the visual aspects are designed. Moreover, employees with lower digital maturity might not be used to working with digital tools and, therefore, need more support to understand and experience enjoyment. Technical difficulties relating to lower digital maturity can be overcome through social pressure, i.e., if the employee experiences that co-workers are adapting to and are interested in the game elements. The digitally mature users need to feel more control and be able to adopt the IT-system based on their own preferences.

The results show that it is important that the user feels that they have control, which relates to self-determination theory (Deci & Ryan, 1985; Ryan & Deci, 2000). It furthermore highlights the need for the employee to be able to make the experience into their own, based on their frame of reference (Iveroth & Hallencreuitz, 2016).

6.11 Control, Rules and Regulation

There are risks and problems associated with using gamification as a tool stated by the interviewees. The main potential risks are the same as with any leadership tool or communication approach that is used to control what people do.

_The risk of manipulation or persuasion is the same as with any communication. If packaged with the right rhetoric, any communication can be used in this way. But with gamification people can see through the rhetoric since they interact with the system which gives the user more influence to impact than when just reading or hearing something._ /Andreas Stjärnhem

The greater problem then lies in the organisational culture and the general belief that technology can be used to brainwash people into doing things. But using gamification to manipulate people will only work short term since the user will start to question what they are getting from the experience.

Control and regulation should rather be implemented through rules and structures, that help explain the goals and the expected performance, as a part of the game elements in the IT-system. Clear rules steer the user in the right direction so that they can accomplish their challenges, tasks, etcetera. It is important that there is a clear connection between the rules and feedback the user receives. Because if the user does not understand the feedback they cannot follow the rules it relates to. The gamification rules need to be clear and in line with the rules, routines, structures, etcetera of the overall organisation so there is no conflict of interest.
The analysis highlights that rules and structure implemented through gamification can help the user understand what they should do and what is expected of them. This can be connected to helping decrease the employee uncertainty as well as performance and normative concerns (Lewis, 2011). Moreover, management’s actions in regards to control needs to be something the employee can contextualise into something meaningful for them. If not, this could create resistance (Iveroth & Hallencruiitz, 2016).

6.12 Analysis and Results in Connection to the Theoretical Framework

The presented theoretical framework has been of significant assistance in understanding the results of the empirical data. The framework highlights how gamification can work has an engine in the employees’ transformation. The combination of change communication, sense-making and human psychology theories has also proven to be a good foundation for understanding gamifications role as a potential communication tool. Perhaps inclusion of narratology aspects, connected to digital tools, could have contributed to further in-depth analysis of the narrative aspects that have been shown to have an important role. Since there was no data gathered from end users some aspects, such as if gamification leads to the feeling of flow, has not been possible to analyse.
7. Concluding Discussion and Remarks

This section summarises and discusses the findings of the conducted research. The purpose of this thesis has been to explore how gamification can be used as a communication tool in connection to internal change processes. A discussion, relating the findings to the sub questions, will follow to highlight the potential of gamification. Furthermore, a conclusive answer to the main research question will be presented.

7.1 Gamification as a Communication Tool

Q1: How can gamification enable communicative messages to help drive change?
Gamification in itself carries messages based on what type of game elements that are chosen by the creator. The elements signal messages of, e.g., goals, actions, challenges to the user as a way of impacting the employee’s behaviour. These types of messages are more implicit and can, if not put into a context, make no sense for the intended user. For the user to be able to relate to the game elements they need a context, some type of narrative or story that explains their purpose and why the user should interact with the gamified system. The narrative and stories needs to correlate to the organisations overall communicative messages for the user to trust and relate to them. The combination of the narrative, stories and game elements can be used in a change process to help the employee understand, accept and partake in the transformation. They do so by connecting the employees’ interaction with the gamified IT-system to the overall change message relating to the culture, vision, DNA, etcetera of the organisation. The elements can be both visual markers that communicate how the employee is performing in relation to the change. They can, moreover, be rules, structures, engagement loops, etcetera that help the user understand what the change means for them and how they can behave to contribute to the transformation.

One of the most beneficial aspects of gamification, as a communication tool, is that it involves the user in an ongoing dialog, that is based on the interaction between the user, the IT-system, and often other users. Through prompting the user to take on, e.g., challenges or showing them how their skills are developing, the IT-system in itself provides the user with feedback to keep them motivated to continue the process. The feedback creates a feeling of accomplishment, which encourages the user to continue the transformation, compared to other change processes where the employee’s contribution might not be available for them to see or understand.

Gamification can also enable communicative messages relating to change by being a visual tool that can, both literally and figuratively, show the user the journey forward. It can, furthermore, help clarify different, e.g., deadline or stages that needs to be reached to realise the overall vision and objective. This can make the change both clearer and more manageable for the employee.
Q2: How can the communicative aspects of gamification be constructed?

There is not one specific template that the communicative aspects of gamification should follow, rather they need to be adapted based on the specific purpose and objectives. Nevertheless, there are some aspects that are important to highlight.

The organisational problem that the change process is intended to fix, is the foundation and engine for the gamification solution. The communicative aspects should be created based on an analysis of the intended target group and the specific context that the gamified concept is to be used in. The communication needs to be a part of the organisations overall change communication and the constructed change message is the foundation for how the gamified aspects are created.

Based on the change vision and objective, concrete goals for the employee are generated to highlight their contribution and role in the process. These goals need to be connected to the employee’s own motivational factors, so that they create a link to how the organisational change impacts the employee, based on their own frame of reference. The goals need to be concrete and measurable for the employee. They should furthermore help paint a picture of the employee’s intended user journey. The goals should also relate the employee’s contribution to the bigger whole, the organisational change journey, to highlight the overall impact.

Specific game elements such as rules, structure, and challenges, together with visual components, ought to be chosen based on the employees’ psychological factors rather than demographic factors. The elements should stimulate and encourage the employee to move forward along the user journey and in the change process. The game elements need to be woven into the contextual situation of the change. This can be done through the organisational narrative and stories that explain the purpose and goals of the change for the employee. This narrative is also the main communicative message in the gamified IT-system. It helps the user relate the change to their actions in the IT-system.

To encourage the employees to participate and share their narrative and stories, both in the gamified IT-system and in the bigger organisational context, one needs to support the ongoing interaction in the organisational system between change leaders, employees, and the IT-system. The elements, narrative, stories, etcetera are combined so that they create an engagement loop that drives the interaction through feedback that shows the employee how they are progressing. The feedback must fit the employee’s specific goals and relate to the set rules, so that the employee can understand what is expected of them. The employee’s motivation is at first triggered by external factors, to get them interested in the gamified IT-system. As they get involved, the motivational factors need to shift towards more intrinsic factors in order to enable more sustainable results. It is when an employee feel that the activity provides them with intrinsic motivation that they can fully commit to the intended transformation.
**Q3: What is the user’s role in the communicative aspects of gamification?**

The user has a very significant role in gamification, especially when viewed as a process. The creator of gamification, designs a user experience that contributes to the employee being stimulated, feeling enjoyment, etcetera through motivational affordance. However, it is the employees’ experience and interpretation that determines if the intended outcomes are successful. Therefore, the employee’s user role is as important as the creator’s role, and the organisation needs to consider this during the change process. To be successful in creating the gamified experience, the user needs to be given an inclusive role where they participate in the creation of the intended user journey. This helps to ensure that the organisational vision and objective can be transferred to an understandable context for the employees. The organisation should listen to the employees’ narratives and stories, to understand their frame of reference, so that they can communicate the change message based on aspects that the employees can relate to. The employee’s interaction with the gamified system tells a lot about how they are relating to the messages and the goals. If the employee is not succeeding with their user journey, it means that they are not aligned with the intended purpose and vision. It is, therefore, important that the gamified experience is seen as a continuous dialogue between the employee, the change leader, and the organisation as a whole.

**7.1.1 The Gamification and Change Communication Processes as One**

During the theoretical review and empirical study, it has become clear that gamification and strategic change communication has an interconnected relationship when used in a change process. The findings support that the gamification process should be imbedded into the change communication process, since they both prioritise the development of a strong strategic contextual foundation. The two processes are, therefore, possible to merge into one, where the development of gamification and change communication messaging goes hand in hand.

**7.2 Conclusion**

The conclusion for this thesis is directly related to the stated research question; *How can gamification be used as a strategic communication tool in connection to internal change management processes?*  

Gamification can be used as a strategic communication tool in a change process by involving the employee in an ongoing dialog based on interaction, that helps them understand, accept, and contribute to the intended transformation. By having an enabling and enhancing effect, gamification makes the employee’s use of digital tools more enjoyable and stimulating, and thereby supports a sociotechnical change process. This is accomplished through the use of one change message that is incorporated into both the organisational narrative as well as the IT-system narrative. The narrative helps to activate and on-board the employee to the in-
tended change journey and keeps them motivated to continue. The game elements drive the interaction and produces feedback, that stimulates the employee by showing their progress and contribution. This process also entails that gamification becomes an extension of the organisations leadership, by supporting the employee on their journey through feedback, to keep them motivated. Gamification can in this way be seen as an engine that drives the employees sensemaking process relating to the change, through a continuous dialogue that helps them internalise the vision and objective of the change. It can, furthermore, help to facilitate the social interaction that is the foundation of an employee’s sensemaking, connected to a change, by supporting the ongoing communication of the change message. This mean that the organisation can comprehend how the message resonates with the employee’s frame, through exchange of feedback. Even though gamification offers personalisation, user adaptation, choices, etcetera it is normative in the sense that it still has a predetermined path that is intended for the employee. The change communication and gamification processes can be merged into one process, that supports the intended change and enables employee involvement.

7.3 The Implications of the Findings

The results provide interdisciplinary insights on how gamification can be used as a communication tool in connection to digital transformation. They highlight best practice and important factors to consider regarding how gamification can help to convey change messages and involve employees in an ongoing dialog as part of a digital transformation. It also emphasises the user’s role in the communicative aspects of gamification.

The results connect to previous research on what gamification is and why it should be used by exploring how and when gamification can be used. The results relate to Hamari and Kovi- visto (2015) study that shows that both extrinsic and intrinsic motivation is needed to get employees engaged in gamification. The conclusion is, moreover, in line with Langer, Hancock and Scott (2014) study in relation to that a narrative can help engage and motivate users, and complements that in a change situation the narrative needs to be connected to the reality of the change situation.

The thesis conclusion entails that gamification can be used to engage and motivate employees in a new way, that makes their roles and responsibilities more enjoyable and stimulating. This is something that is becoming increasingly important to organisations in the struggle to attract and retain young professionals. Gamification can help organisations adapt to a more digitalised way of operations that includes the employees in an ongoing interaction that is adapted to their needs and psychological drivers.

Even though the results are not automatically transferable to other cases or organisations, they provide insight and a foundation that can help guide organisation, that are new to the gamification concept, in how to approach the creation and implementation of the concept.
7.4 Limitations and Methodological Reflections

When conducting qualitative research there are limitations in regards to how much the results can be transferable to a more abstract situation beyond the gathered data. A qualitative approach takes a deeper rather than wider perspective on the research subject. Which implies that the results from this study can serve as an indication of how gamification can be used as a communication tool, however, further study is needed in order to present more general suggestions. The study was limited to organisations and experts on the Swedish market. Since different cultural settings might impact how new technical solutions are implemented and accepted in organisations, it is not possible to transfer the knowledge without further research and adaption.

Furthermore, the case organisation for the study were both in the first part of the implementation process. This means that problems and difficulties that might arise further along the process have yet to be discovered. Researching organisations that have finalised and evaluated the process could provide other types of insight that would be valuable. The types of case organisations might also have impacted the research results, other organisations in other industries might have generated other outcomes.

In the selection of interviewees for the study the search for people that met the set criteria was conducted in a way that would limit the researcher’s bias as much as possible. Nevertheless, person’s that might have been able to contribute valuable insights and best practise knowledge, might have been missed or not able to contribute.

Moreover, a limited number of interviews were conducted due to resources and time restraints. The results might have been different if more interviews had been conducted.

The data has been gathered and analysed by the same researcher and there is always a potential risk that subjective judgment, prerequisites, and bias might have impacted the results of the study. A different researcher might have interpreted the data differently. There might also be external factors, not known to the researcher, that have impacted the gathered data.

7.5 Further Research

Gamification as a research area is still relatively new, there is a need for further exploration on how gamification, connected to sociotechnical change, can be used and in what context it contributes to successful results.

An area that needs more empirical result and insight is the mapping of psychological reactions and behaviours in relation to different game elements. This would help designers of gamification better understand how they can create enriching and profound experiences that connects to users’ motivational factors.

In regards to the communication perspective, it would be valuable to see more studies conducted that explore the communicative functions, especially from the user perspective. How
the user perceives and reacts to messages conveyed, would be a great help in the development of gamification solutions.

The use of organisational narratives and stories in combination with gamification is an area that, based on the empirical data, show great promise. Further research that explores how these stories and narratives are developed based on the organisations social interaction would contribute to a better understanding of how they can be used.

Furthermore, the merge of the change communication and gamification processes into one joint process, has been found to be an important aspect of gamification connected to change management. There is a need for further research exploring the potential of a joint process and how it should be planned, what steps it should entail, and how it involves different stakeholders.
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