



Gamification in training: engagement and motivation

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<p>Abstract: The thesis broadens the understanding about the future use of gamification in training activities at organization. The focus is to understand how the employee engagement, motivation and interest for training activities can be influenced and increased by the use of gamification.</p> <p>The thesis follows a constructionist and grounded research design. The empirical data is collected through seventeen interviews with training consultants, game designers and human resources representatives as well as observing two different training situations.</p> <p>The findings indicate that games and gamification can be used in the context of training as a tool to increasing the engagement, motivation, and interest towards the training activities. Games are a safe and familiar environment for most of the people and their use in training purpose is seen as very beneficial. However, as the content is still seen as the most vital factor for the training, should gamification be designed purposefully and closely aligned with the inherent goal of the training. Furthermore, the biggest challenge is to find game elements that motivate and interest the majority of the employees. Therefore the knowhow of the employees and their interest areas and open communication are crucial actions when designing a successful gamified training environment.</p>	
Keywords: gamification, games, training, engagement, motivation, interest	

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1 INTRODUCTION

Employee development and training are one of the most challenging but also the most crucial activities for organizations. Training is vital for organizations to maintain the required competence level of the employees, to develop the competitive advantage of the human capital, and to serve as a communication channel for the organizational goals and mission (Arthur, Bennett, Edens and Bell 2003). Furthermore, it feels like some individuals even expect to have the possibility to gather new knowledge and broaden their own knowledge base and develop. However, successful training activities need two parties; the organization providing interesting training and the individuals who are willing to learn. The employees should show engagement and have interest to increase their knowledge and proficiency and to independently acquire new skills and develop themselves. However, the engagement and interest towards the knowledge acquiring is not as clear in the organizations (Ryan and Deci 2000).

Employee engagement refers to their likeliness to take part in certain tasks and independently show interest towards surrounding activities (Reeve, Jang, Carrell, Jeon and Barch 2004). Engagement appears through physical, cognitive and emotional behavior related to the activity in question (Kahn 1990) and it can be influenced through interest creation and motivational factors (Eccles and Wigfield 2002). As the business world is changing, should also the techniques how to raise the interest and increase the engagement and motivation among employees be revised and designed according to the new era.

Gamification is a trend that has received lots of attention recently, although the phenomena itself is not new (Kapp 2012). Gamification, the use of game element in a non-game context, has big expectations to affect the business world broadly. Games are engaging (Kapp 2012; Kim, Park and Paek 2008). Only a look around in public transport reveal that the games of different kind has occupied the free time of both young and older generations, and the constantly developing interactive electrical world is full of opportunities. Zichermann and Linder (2013) argue that the organizations should keep up with the gamification trend that take root across industries if they want to remain and keep up on the edge of competitive organizations in the future.

The interest towards playfulness and fun also with work related tasks has increased (Kark 2011). As the free time is more fun and interactive, the employees are expecting the work to follow that pattern. The new generation is even expecting the work to be as

interactive and enjoyable as the everyday life. Although the great impact of games has been noted broadly, it is still remaining to see how their characteristics could be used beneficially also in business context.

“At some point as we get older... we are made to feel guilty for playing. We are told that it is unproductive, a waste of time, even sinful. The play that remains is, like league sports, mostly very organized, rigid, and competitive. We strive to always be productive- This is not the case... the truth is that in most cases, play is a catalyst. The beneficial effects of getting just a little true play can spread through our lives, usually making us more productive and happier in everything we do.” (Brown 2009 in Kark 2011; 507)

1.1 Problem background

Companies that aim to be in fore front of the business activities will adapt their structure and design it to fit the expectations of the new digital generations (Zichermann and Linder 2013). Zichermann and Linder (2013) argue that engaged employees are one of the most crucial factors for the future organizations. Engaged employees perform better in their work and they are dedicated to their work tasks (Bakker 2011). However, organizations training portfolios' efficiency can be questioned if the employees do not show interest or positive attitude towards the training activities organizations are providing (Zichermann and Linder 2013) Therefore it is of essential interest to find ways to engage the digital generations and arrange interesting and training. However, how to create interesting and good quality training for the employees who are bored with the old class room trainings that are not fulfilling the desire for interactive, flexible and mobile environment for knowledge acquiring is a challenge (Kapp 2012).

Although everything can not always be fun, there is a potential benefit that organizations could use from games and game elements. To use gamification as a facilitator for learning is a hot topic among the educational institutes and businesses. Despite the expectations of benefits from gamification are big (Deloitte, Gamification goes to work), is there very little research done of how organizations could make an advantage of the current wave of gamification. Therefore, the aim of this thesis is to understand how gamification could support the acquisition of knowledge and the development of individuals in organizational activities.

1.2 Purpose of the study

The aim of the thesis is to understand the potential role of gamification in employee training by influencing the behavior of the employees. More specifically, the thesis is trying to grasp

How the employee engagement, motivation, and interest for training activities can be influenced and increased by the use of gamification?

In order to understand the elements in training activities that gamification could support the thesis will form a further understanding of

What motivational factors should be taken into consideration when planning a gamified environment for the training?

What possibilities and challenges should be taken into consideration regarding gamifying employee training in future?

1.3 Scope and limitations

The thesis is trying to gain understanding about the current training field and what possibilities gamification could serve with in future. Therefore the thesis is not taking into consideration the different training methods that are used today. Furthermore, the thesis is trying to gather broad understanding about the current challenges that training activities are facing, and is therefore not taking into consideration industry, position, gender, or age differences. Moreover, due to the novelty of gamification, the thesis is not making a difference between the use of games and gamification in current training activities and is rather using them together with game-based learning under a common umbrella term. Hence, the thesis is only able to give weak suggestions for the use of gamification due to lack of practical experiences at organization. Additionally, the suggestions of the thesis should be seen as implications for future, and rather an introduction to the future studies rather than absolute truth.

1.4 Key concepts

Key concepts for this thesis are engagement, motivation and interest, games, game-based learning and gamification. The literature review will explain the terms more deeply, but below short descriptions.

1.4.1 Engagement

Engagement refers to the behavioral intensity and emotional quality of a person's active involvement during a task (Reeve et al. 2004: 147). More precisely, engagement is “- a distinct and unique construct that consists of cognitive, emotional, and behavioral components that are associated with individual role performance“(Saks 2006: 602). Furthermore, engagement is “a positive, fulfilling, work-related state of mind that is characterized by vigor, dedication, and absorption” (Schaufeli and Bakker 2004: 295).

1.4.2 Motivation

Motivation is the level of energy, direction and amount of persistence individual perceives toward an end (Ryan and Deci 2000: 69). ” To be motivated mean to be *to be moved* to do something” (Ryan and Deci 2000: 54).

1.4.3 Interest

“Interest as a motivational variable refers to the psychological state of engaging or the predisposition to reengage with particular classes of objects, events or ideas over time” (Hidi and Renninger 2006: 112). Furthermore, Hidi (1990 in Hidi 2001: 195) defines interest to be the determining factor to define the way in which we select and process information, or certain action, in comparison to others.

1.4.4 Game

“A system in which players engage in an abstract challenge, defined by rules, interactivity, and feedback, that results in a quantifiable outcome often eliciting an emotional reaction” (Kapp 2012: 280).

1.4.5 Gamification

“Gamification is using game-based mechanics, aesthetics and game thinking to engage people, motivate action, promote learning, and solve problems.” (Kapp 2012: 10)

1.4.6 Game-based learning

Game-based learning is learning that is promoted and improved by the use of games having the focus in learning rather than in the game (Wu, Chiou, Kao, Hu and Huang,

2012: 1154). “Game-based learning is ‘learning through the game’ rather than ‘learning to play the game’.”(Wu, Hsiao, Wu, Lin and Huang 2011: 269)

1.5 Structure

The thesis is divided into four parts. It will start with a literature review that will explain the concepts of engagement, motivation, interest creation and flow, and further discuss the engagement and motivation towards learning. Furthermore, games, game-based learning and gamification are discussed with a focus on the phenomenon of gamification. The chapter two will end with a discussion of the use of gamification in learning contexts. The methodology of the empirical data collection and its implications will be discussed in detail in chapter three. After, the findings and analysis of the gathered empirical data will be presented in the chapter four. Part five will complete the findings of the thesis and discuss the possibilities of games and gamification as an engagement and motivational tool for employee training. The chapter ends with suggestions for further research within the field of training and gamification.

1.6 Acknowledgements

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2 LITERATURE REVIEW

This chapter starts with discussing engagement, and how motivation, creation of interest, and perception of flow can influence the engagement creation. After, the role of games and game-based learning together with the characteristics of gamification in engagement for learning will be brought up. The chapter aims to understand what the engagement consists of, and why games and gamification can be used to increase engagement and motivation of individuals in training context.

2.1 Engagement and motivation for learning

The more motivated the employees are for the training, the better are the learning outcomes (Aziz and Ahmad 2011; Ballance 2013). However, the cognitive learning and the acquiring of new skills can not occur efficiently without a natural motivation and interest towards the topic and the outcome (Ryan and Deci 2000). Equally, Ryan and Deci (2000) argue that the cognitive, social and physical development of individuals can not occur without an inherent interest towards the topic, as the inborn interest support the competence and knowledge acquiring. Interest has been seen to promote individuals learning, cognitive reasoning, and understanding (Hidi, 2001) and has therefore proven to be a powerful tool to facilitate learning (Ainley et al. 2002; Eccles and Wigfield, 2002; Hidi 2001).

Engagement refers to individuals' involvement and enthusiastic participation in the surrounding activities and tasks (Reeve et al. 2004). Furthermore, engagement reflects on the likeliness of individuals to bring in or leave out themselves from an activity or action (Kahn 1990). Besides, engagement does not have a specific object or activity that it is directed to (Schaufeli and Bakker 2004). Furthermore, Schaufeli and Bakker (2004: 295) describe engagement to consist of feelings of "vigor, dedication and absorption" to the activity. Similarly, Maslach and Leiter (1997 in Schaufeli and Bakker 2004:294) explain engagement to be characterized of energy, involvement and efficacy. Furthermore, Kahn (1990), one of the first researchers within engagement, describes the psychological conditions that are required for engagement to appear between the individual and the environment or actions to be meaningfulness, safety and availability. Kahn (1990) explains meaningfulness is the result of the investment in time, the value of the activity. The meaningfulness is experienced when individuals feel useful and valued, and that their actions are worth something. Furthermore, the meaningfulness is

influenced by the task characteristics, role characteristics and work interactions, demanding the use both old and new skills and therefore requiring learning and development (Kahn 1990). Kahn (1990) explains safety on the other hand to be influenced by the environment and the feeling of trustworthy, secure and safe environment where the self-esteem and status are not harmed. Also the social systems as well as group dynamics have an impact on the feeling of safety (Kahn 1990). Furthermore, according to Kahn (1990), availability refers to both physical and emotional vitalities that influence the possibilities to take part in certain actions, and the perceived insecurity when doing so.

Engagement towards learning can be very individual, but factors that have a significant effect on it are the challenge of the activity, control, immersion, interest and purpose (Whitton 2011: 605) These factors, and the overall engagement towards learning, can be influenced by the different motivational elements, interest creation and the perception of flow (Eccles and Wigfield 2002). Likewise, Reeve et al. (2004) point out the interrelation of engagement and different motivational types. Therefore, these theories are explained below together with the perceptions of motivation and interest towards learning.

2.1.1 Motivation and elements of motivation

Motivation is the action to reach a specific target or an outcome, the force that generates the action (Ryan and Deci 2000; Ryan and Deci 2000b). Ryan and Deci (2000) that are seen as influential researchers within the field of motivation, describes that motivation shows the direction of the individuals' action and therefore guides the human behavior. Furthermore, motivation can occur to different extents; a person might be less motivated or have a great desire to conduct a specific action (Ryan and Deci, 2000). Therefore the difference between motivation and engagement is that engagement includes besides motivation also understanding about the reasoning behind the activity and its affect (Bakker 2011).

The self-determination theory of Ryan and Deci, (2000b) states that the tendencies and psychological needs of the individuals are the base for the motivation. Those essentials are the competence, relatedness and autonomy (Ryan and Deci 2000b). Similarly, Wlodkowski (in Galbraith 1990: 97-118) state that the motivation is affected by the adults' attitude, need, stimulation, affect, competence and reinforcement. Figure 1

concludes the cornerstones of motivation adapted from Ryan and Deci (2000b) and Wlodkowski (in Galbraith 1990: 97-118)

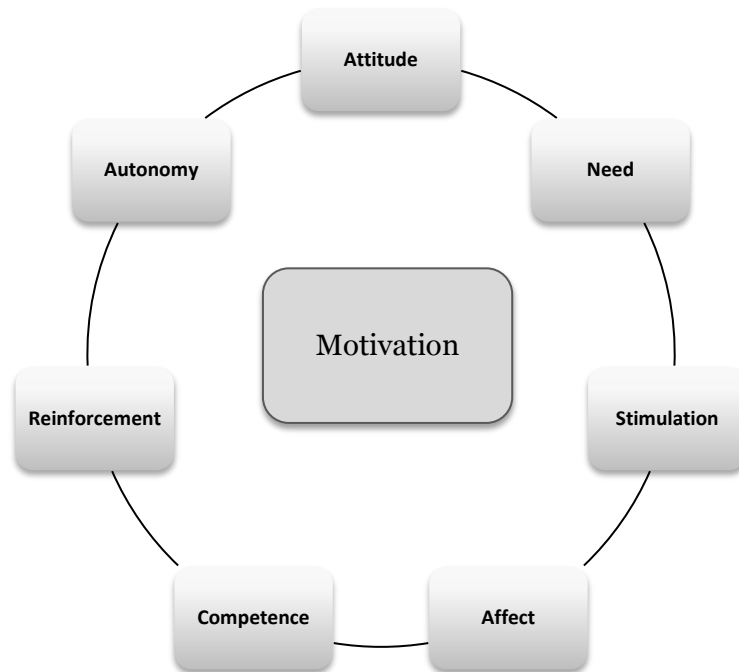


Figure 1 The corner stones of motivation for adults (adapted from Ryan and Deci 2000b and Wlodkowski in Galbraith 1990: 97-118)

Moreover, the motivator, or the direction for the actions, might be intrinsically or extrinsically guided. However, motivators can also be partly intrinsic and partly extrinsic, and therefore the motivational effect is significant and overarching (Ryan and Deci 2000). Intrinsic motivation is actions that individual does because they are meaningful or interesting and they serve as inherent satisfaction. It can be the fun, or the challenge, or the value of the activity that serves as the motive for the action (Eccles and Wigfield 2002; Ryan and Deci 2000; Peng and Hsieh 2012). However, the intrinsic motivation does not occur by itself, it is the outcome of the interaction with the environment and the individual interests and preferences (Ryan and Deci 2000; Ryan and Deci 2000b). Ryan and Deci (2000b) further state, that tangible rewards as well as threat, deadlines and directives decrease the intrinsic motivation whereas choice, feelings and opportunities are likely to increase it. Moreover, the challenges and the feeling of improvement as well as open feedback are elements that affect the intrinsic motivation. Additionally, feelings of autonomy and locus causality are important elements (Ryan and Deci 2000b). Furthermore, Deci and Ryan (1985 in Ryan and Deci

2000) argue that the individuals have a basic need for competence, and therefore actions like rewards, communication, challenges and feedback can serve as intrinsic motivators and therefore increase the motivation to learn. However, they additionally argue that the intrinsic motivation is not awoken unless the individual has a sense of autonomy and perceives causality. Moreover, the social environment has a great effect on the intrinsic motivation through the psychological necessities of the individual (Ryan and Deci 2000b).

Extrinsic motivation refers to actions that are taken because of an external reward, outcome, and a goal. A certain action is taken as it is expected to result in an additional outcome or a reward that has an instrumental value for the individual (Eccles and Wigfield 2002; Ryan and Deci 2000; Ryan and Deci 2000b; Peng and Hsieh 2012). The external motivation can be divided further into different levels of the extrinsic motivation according to the nature of the external rewards and autonomy (Ryan and Deci 2000; Ryan and Deci 2000b). Figure 2 describes the different states of extrinsic motivation; external regulation, introjected regulation, identified regulation and integrated regulation.

Ryan and Deci (2000b) have described the appearance of different states of extrinsic motivation. They describe the externally regulated extrinsic motivation as the least autonomous form of extrinsic motivation. Clear rewards or punishments are linked to the external regulation and individuals might feel very controlled (Ryan and Deci 2000b). The introjected regulation on the other hand is partly self-controlled and can have internal rewards, but has the focus on external factors as motivators (Ryan and Deci 2000b). They argue that the activities can be performed in order to avoid the feeling of guilt, or to attain pride and feeling of worth. Furthermore, Ryan and Deci (2000b) explain the autonomy level to increase in identified regulation, where the individual values the behaviour and outcomes also internally. In the most autonomous form of extrinsic motivation, the integrated regulation, the guidelines and principles are transferred to the congruence of the individual values (Ryan and Deci 2000b). They agree that this state is very close to intrinsic motivation, but it differs with the external and separate outcomes that are the driver for action instead of pure enjoyment. There is a significant increase in the engagement and enjoyment among the individuals depending on the level of autonomy of the extrinsic motivation (Ryan and Deci 2000b). Moreover, the self-regulation theory of Ryan and Deci (2000b) further argues that human can transform extrinsic motivation to be closer to intrinsic motivators through

the internalization of the motivation, and therefore the engagement and excitement are also expected to be self-regulated to a certain extent.

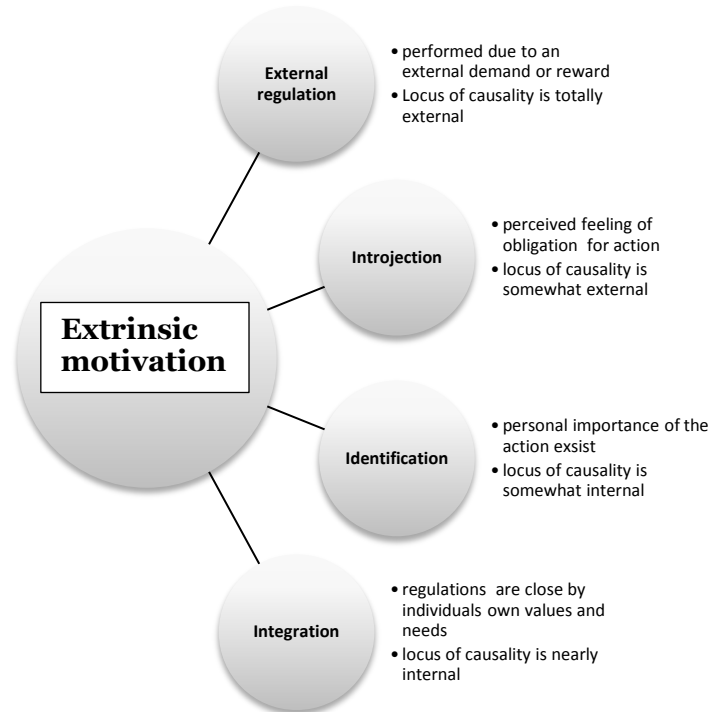


Figure 2 Extrinsic motivation (Ryan and Deci, 2000: 61)

2.1.2 Interest creation

Interest is seen both as an emotional state of an individual and a predisposition of a certain activity or action. Focused attention, persistency and increased both cognitive and affective functioning are characteristics of interest creation for an individual (Ainley et al. 2002: 545). However, the difference between the interest of individuals and the motivation are unclearly described among the researchers. Unlike motivation, interest has a direction and an object (Hidi and Renninger 2006). Hidi and Renninger (2006) state the interest to be a combination of both cognitive and affective components forming the individual's awareness towards an activity or action. The affective components of interest often include positive emotions that affect the individuals' engagement, and the cognitive components reflect on the expectations related to the engagement and has therefore an effect on the cognitive functioning of the individual (Hidi and Harackiewicz 2000). The interest creation is rarely a conscious process; individual can guide the direction of the interest but the interest creation is often unconscious (Hidi and Renninger; 2006). Furthermore, Hidi and Renninger (2006) explain that the interest has its grounds in the individuals' biological roots; the

psychological factors and perceptions have a determining role in the symbolical, emotional and cognitive preferences together with the interactions with the environment and the individual.

Traditionally, the interest has been divided into situational and individual interest. Individual interest is attention that is directed towards certain domains, whereas situational interest is interest that is linked to certain features of an activity (Ainley et al. 2002; Eccles and Wigfield 2002; Hidi and Harackiewicz 2000). Recently, there has been a further division of interest creation into a four-phase model created by Hidi and Renninger (2006). The different phases are expected to be progressive as seen on Figure 3. Only all the phases together will result in the final, well-developed, interest to take place, which will result in an extended motivation for the individual (Hidi and Renninger, 2006).

The four phase interest creation model of Hidi and Renninger (2006) is based on triggered situational interest, maintained situational interest, emerging (less-developed) individual interest, and well-developed individual interest. Hidi and Renninger (2006) explain the triggered situational interest to awake after a stimulus in the environment has taken place that awakes affective reactions in the individual. This triggered situational interest is then likely to awake the interest and connection towards the contents. In the second phase, the maintained situational interest, the interest creation is supported by the environment and external factors. Hidi and Renninger (2006) state that the environment supports the connection with the content and the value realization for the individual. In the third phase, the emerging individual interest, the individual is seeking connections and reflections with the content to increase engagement. Hidi and Renninger (2006) argue that this is done either with or without support from the environment. Curiosity is awakening and the individual seeks understanding and increased information gathering to result in increased value realisation. The fourth and final phase of well-developed individual interest the individual repeatedly seeks value realization and increased reengagement (Hidi and Renninger, 2006).

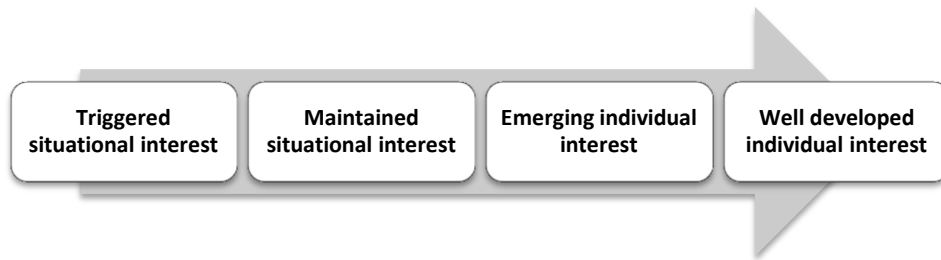


Figure 3 The four phase model for interest creation (Hidi and Renninger 2006)

Furthermore, Hidi and Renninger (2006) claim that the individual needs previous knowledge or experience of the topic for the situational interest to occur. Therefore, the prior knowledge is a prerequisite even for the individual interest to occur, as the individual interest can be maintained, but can not arise, without situational interest. Moreover, for the interest to stay strong, four phases require support and facilitation that should be based on further developed questions and satisfactory answers that awake further interest (Hidi and Renninger, 2006). As a result, the individual interest should support the management of the uninteresting tasks, whereas the situational interest will facilitate the further interest creation towards a certain topic (Hidi, 2001).

2.1.3 Flow theory

Shaufeli et al. (2002) explain flow and engagement to be similar with the difference that a flow experience is rather shorter and more focused, whereas the engagement is a longer lasting and more stable state of mind. In the perception of flow, the individual experience a subjective feeling of being absorbed by the activity, the self-consciousness disappears and the individual experiences a holistic immersion and extensive task focus (Csikszentmihalyi, 1988 in Eccles and Wigfield 2002; Guo and Ro 2008: 442). Additionally, the individual has the control of the actions and the environment and is fully aware of surroundings (Guo and Ro 2008). Csikszentmihalyi, (1991 in Kiili 2006: 189) defines flow experience through nine dimensions; balance between individual skills and the challenge, focus and awareness on the action, clear goals of an activity, unambiguous feedback, the possibility of control, concentration, loss of self-consciousness, the transformation of time, and conducting an activity for the sake of if rather than for the outcome. Kiili, (2006: 187) further state that even the sense of control and playability are factors that affect the flow experience. Figure 4 summarizes the elements of flow. Furthermore, the confidence between the individuals' capabilities and the requested challenge and a feeling of completing the task can result in a flow state that serves as a motivator to continue the activity (Csikszentmihalyi 1988 in

Eccles and Wigfield 2002). Therefore, the flow can even affect the individuals' intrinsic motivation towards an activity (Guo and Ro 2008).

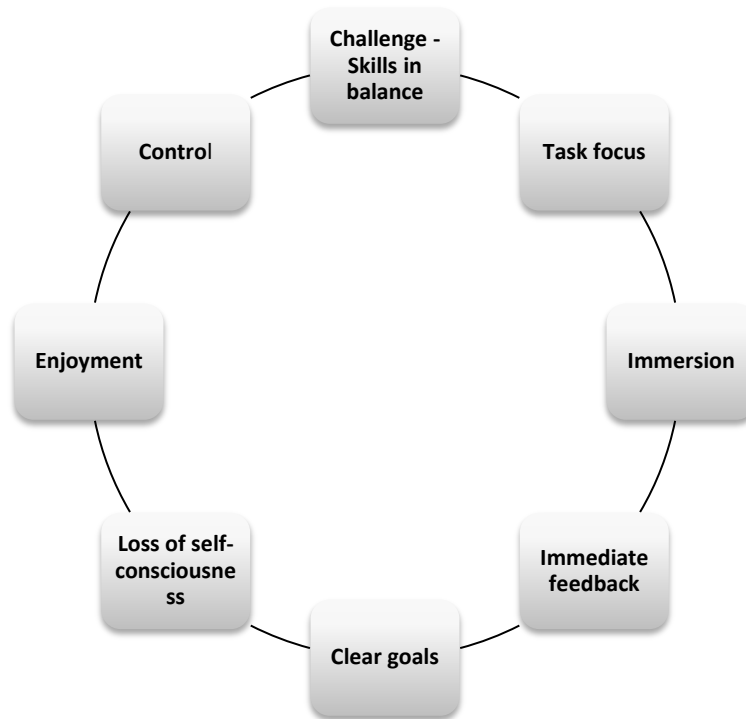


Figure 4 Elements of flow experience (adapted from Eccles and Wigfield 2002; Guo and Ro 2008; Kiili 2006)

However, it should be noted that flow is not a constant state of mind as the individual skills improve by time, rather an unstable momentum that need to be adjusted (Guo and Ro 2008). Furthermore, the flow is created between the individual and the environment and can therefore differ significantly between individuals (Egbert 2003). Additionally, the trait and cultural differences have shown to affect the flow experience significantly (Moneta 2007).

2.1.4 The affect of engagement, motivation and interest for learning

The intrinsic motivation has a crucial role in individuals desire to develop. Ryan and Deci (2000b: 69) have even stated that the intrinsic motivation is the “prototypic manifestation” of the human to be interested to learn. However, it is also argued that intrinsic motivation does not occur unless the individual has an intrinsic interest towards the action; it serves as a novel experience, as a challenge or of extraordinary value (Ryan and Deci 2000b). Especially the quality of learning is shown to affect the original interest towards a specific topic (Hidi 2001). However, the quality of the

content of the training is not revealed for the individual before the training has already started. Therefore, the increase in the quality might rather affect as an intrinsic motivational factor or part of the situational interest creation, which will hopefully result in a more engaged and continued desire to continue learning at later stage.

Adults are autonomous individuals who are motivated to learn new skills when they have expectancy for success, a sense of volition, the learning is of value, and they enjoy the activity (Wlodkowski in Galbraith 1990: 97-118). Furthermore, according to Aziz and Ahmad (2011) the motivation for training can be facilitated with possibility to voluntary attendance, the reputation of the training, appropriate training design, and the relevance of the training for both career as well as for the personal related needs. Also Hidi, (2001) points out the importance of the learning environment. Additionally, continuous feedback, different rewards and especially opportunities for ongoing learning among others factors are seen as features affecting the employee engagement and likeliness to be satisfied with the workplace (Wollard and Shuck 2011). Additionally, if learning is perceived as something fun and motivating, Wlodkowski (in Galbraith 1990: 97-118) argues it to increase their self-esteem and hence affect positively on the learners intrinsic motivation towards learning.

The flow experience in game-based learning, game flow theory, is argued to be one of the most important contributors for the learning and engagement in the game (Kiili, 2006) and contribute to positive learning results (Guo and Ro 2008). In a cooperative learning environment, the flow can result in deeper learning by enhancing the affective learning and players' motivation (Raphael et al. 2012). However, the flow for learning is highly influenced by the personal characteristics and the characteristics of the learning environment (Egbert 2003; Guo and Ro 2008) and can therefore be difficult to create. Creation of flow through the content rather than the environment might be a challenge as well; Pearce (2005 in Raphael et al. 2012: 1326) argue that the experience of a flow might be a result of the engaging game elements in the simulation rather than the prodigious learning experience. Therefore the use of games and game environments in learning context is highly positive.

2.2 Role of games and gamification in engagement and motivation for learning

Play is strongly part of both animal lives but also of human appearance. When we play, our lives contain more creativity, imagination, and fun (Kolb and Kolb 2010). The perception of Homo Ludens, the man who plays is often linked with games, simulations and play (Kark 2011). Play is difficult to define, but Sandelans (2010: 72) states that it is “the creative dynamic of human community”, state between fantasy and reality where the social constructs of old and new behavior can be modified and mixed. According to Mainemalis and Ronson (2006: 510) play is a threshold experience having boundaries in the time and space and constraint of uncertainty and freedom and different ends and meanings without a positive affect. A game on the other hand is an abstract activity with a clear system and guidelines guiding the actions (Kapp 2012: 7). As a result, the difference between a play and a game is that in a play there is no quantifiable outcome and no winner (Kapp 2012). Principally, game is a play with boundaries and rules.

In a play, the behavior and actions are guided by enjoyment, the feeling of discovering something and fun (Kark 2011). Play encourages motivation, experimentation, and reaching over the boundaries while it also inspires the creativity and creation of new ideas in organizations, both through engagement but also through diversion from the normal day tasks (Mainemalis and Ronson 2006). When play is used to engage the employees, the cognitive, affective and motivational factors enhances the creative thinking (Kark 2011). A play is a great environment for the individuals to practice for the future, to understand new behaviors, and to examine new skills in a safe environment (Kark 2011).

Kark (2011) states that play consist of different kinds of interpersonal, intrapersonal, and interplay interactions that can be real or imagined. Furthermore, he explains play to be about sharing experiences and actions with surrounding people. Therefore, the desire for social involvement and interaction also motivates people to take part in the play (Sandelans 2010). Furthermore, in a play context the social networks in organizations can be tightened and the playful environment can support more informal social contact to occur even between strangers (Mainemalis and Ronson 2006). Further, the shared identity of organizations can be created efficiently in a playful setting where the collaborative and coordinative characteristics of organizations are communicated between the employees (Kark 2011). Furthermore, Kark (2011) point out that in play the group creativity and knowledge sharing are trained proficiently

which directly supports the ongoing learning process. Additionally, its flexibility, uncertainty and irregular existence are beneficial for play to be used as a facilitator for learning (Mainemalis and Ronson 2006).

2.2.1 Game-based learning

Game-based learning uses games as the tool and method for the learning (Wu et al. 2011). The play, the game rules, and the narrative form the structure and framework for the game-based learning to take place (Ang, Avni and Zaphiris 2008, in Wu et al. 2012) together with visually shown actions and a story line (Ballance 2013). As the visual actions and storyline are designed in a way that both the theory and the practice are present, a simulation game provides both with the theoretical and practical part of the training at ones, and it can be used for both present and online learning (Simões et al. 2013).

In game-based learning, the learning happens in a safe, relaxed and fun learning space (Kolb and Kolb 2010). The perception of fun protects the learner of getting hurt, or the learning to be too serious (Ashforth 1998 in Kark 2011). However, as Kim et al. (2009) point out, to find a balance between the enjoyment and fun content in one game that even serves the learning purposes is a challenge. They even suggest that commercial games should be used more often also for educational purposes, as they are generally designed to be motivating and fun.

“The challenge is to adapt game features for instructional purposes, to engage the game cycle that sustains self-directed interest, without squeezing out what is enjoyable about games in the first place. If we succeed, we will be able to develop games that instruct and instruction that engages the student. If we fail, we end up with games that are dull and instructional programs that do not teach.” (Garris, Ahlers and Driskell 2002: 459)

Therefore, the goal of the game and the aim for the learning should be aligned in a fun but educational learning environment in games (Leemkuil and De Jong 2012). Likewise Garris, Ahlers and Driskell (2002) see the challenge designing a learning environment that is appealing but instructional, though they also argue that not everyone learns through playing.

In a game-based learning learners are expected to use their previous and recently gained knowledge and practice it in a safe and engaging game environment where the actions and their outcomes are seen directly (Kim et al. 2009). Garris et al. (2002) argue that the learning outcomes of games are spread over skill-based, cognitive, and

affective learnings. Furthermore, information gathering, situation analysis, decision making, conflict management, and negotiation skills are practiced efficiently in game-based learning (Kim et al. 2009). The social skills are even practiced with the interaction with co-players or in team work (Pivec and Dziabenko 2004). Furthermore, game-based learning often also enables the learner to change roles and see new viewpoints, which supports the broad understanding of situations (Pivec and Dziabenko 2004).

2.2.1.1 Challenges of Game-based learning

The design of the context in the learning environment forms a challenge for organizations. When the play is designed purposefully for the educational context, it might lose the spirit of a fun activity as the focus is on the outcomes and results rather than the action itself (Leemkuil and De Jong 2012; Siewiorek et al. 2013). Furthermore, the word *game* can sometimes be seen as a negative noun; connected with something unserious and something used only for entertainment purpose (Siewiorek et al. 2013). Additionally, play can sometimes be seen as childish behavior and lack authoritarian characteristics and components (Kark 2011). Furthermore, it should be noted that play might not increase engagement and creativity in all contexts and environments (Mainemalis and Ronson 2006) and therefore the context and environment has a significant role.

Another challenge is that not all humans enjoy competitive and learning environments that have game features. According to Harviainen, Lainema and Saarinen (2012) the original purpose, the learning, might fall behind the new prior purpose; to win the game, and the relations in the learning environment might feel vague and unrealistic. Furthermore, the experimentation and learning from mistakes will decrease as the players are more likely to fiercely find the correct answer in order to perform well (Harviainen et al. 2012). Therefore, the use of games or game elements should not be as clear or straight forward rather be embedded to the actual content. For that reason the mindset of gamification could be beneficial when designing learning environments.

2.3 Gamification

Gamification is a new word for an old phenomenon. Different game elements and competition that increase employee and customer engagement have already been used before the 2010s, but their use has not received as much attention before (Mehta and

Kass 2012; Simões et al. 2013). Due to the novelty of the gamification phenomenon, the literature and research are still very limited. However, multiple researchers and companies have shown interest towards gamification and there are increasing interests towards the research in the field.

2.3.1 What is gamification

Gamification has multiple definitions, but the common driver for all the explanations is the adding of game elements and game techniques into non-game contexts (Domíniguez et al. 2013; Bess 2013; Kapp 2012; Mehta and Kass 2012; Simões et al. 2013; Zichermann and Cunningham 2011 and Zichermann and Linder 2013). In other words, gamification is taking the game elements and techniques in use in contexts where they don't normally belong and use them as an engagement and motivational tool (Kapp 2012). Domíniguez et al. (2013) cultivate the definition further; pointing out that gamification is often combined with a software application. Similarly Simões et al. (2013) argue that the game elements are used in non-game applications.

Gamification is to understand about the human behavior, game design techniques, and psychology, and through them find the key motivational factors that can then be used to serve another purpose in another context (Kapp 2012; Zichermann and Cunningham 2011; Zichermann and Linder 2013). The driver for gamification is that fun is a central motivational factor for individuals and therefore a powerful tool to facilitate certain behaviors and activities, and even enhance memory (Werbach 2014, Coursera, 2.1). Simões et al. (2013: 347) describes it even more precisely; "The aim is to extract the game elements that make good games enjoyable and fun to play, adapt them and use those elements in a teaching purpose."

2.3.2 What gamification is not

Gamification and what is part of gamification are defined differently among the researchers. Sometimes gamification is used even in misleading contexts. Besides, depending on the author, certain elements are either excluded or included in gamification. Below some common misunderstandings.

2.3.2.1 *Only fun*

Gamification is not to turn anything to a game (Bess 2013). It is not either to make work more like a game; it is to use the elements of games to enhance behavior (Werbach 2014, Coursera, 2.1) Gamification is a serious process where engagement, learning and motivation can be facilitated, and should therefore not be associated only with simple games or fun activities (Kapp 2012). According to Kapp (2012) the main purpose is to gain new insights, understanding, knowledge and skills, through an activity that is enjoyable and possibly even fun at the same time. Therefore the fun is not the purpose; rather it's a tool for reaching increased learning and development of individuals.

2.3.2.2 *Game-Based Learning, Serious games and Simulation*

The difference between game-based learning and gamification is that in game-based learning already existing games and activities are used for facilitate learning, whereas in gamification only certain elements of games are implemented in learning environments (Simões et al. 2013). Today, both game-based learning and gamification often use information and communication technologies and therefore the description of them might be easily confused.

Kapp (2012: 18) agrees that serious games (games that are designed to serve special content and domain by using game mechanics in a special environment as computer browser or game board) could be seen as part gamification, as they share the same way of thinking, whereas Werbach (2014, Coursera 2.2) states gamification and a serious game to be different. Besides, Werbach (2014, Coursera 2.2) states that gamification is neither the same as a simulation whereas Kapp (2012) does not specify why simulations would not fall under gamification. Kapp (2012: 18) defines gamification to be a “meta-concept” where serious games and simulations serve a “sub-set”. Zichermann and Linder (2013) on the other hand do not specifically explain the difference between a simulation and a serious game, but considers them to fall under the gamification phenomena. Bess (2013) explains simulations not to be part of gamification, as they are often used to model a certain behaviour and therefore not to change the behavior of the individual itself. Commonly, however, serious games do not fit under the general definition of gamification (adding game elements to a non-game context) as a serious game is a *game* designed to serve a special aim and purpose. A simulation on the other

hand is a reflection of a real life activity played in a designed environment (Pasin and Giroux 2011).

Therefore, to distinguish whether they are part of gamification is hard as game-based learning, simulation and serious game include one of the core components of gamification; to learn through a game like engaging experience. For that reason, this thesis agrees serious games and simulations to not to be exactly gamification, but approves that they could be efficient tools for enhancing a gamified activity and can therefore be seen as part of gamification.

2.3.2.3 Individual elements

Individual elements are crucial building blocks for a gamified activity, but should not be seen as defining gamification (Kapp 2012). Gamification is a broader ideology and should therefore not be seen only as individual elements as badges or points (Bess 2013; Kapp 2012, Zichermann and Cunningham 2011; Zichermann and Linder 2013; Werbach 2014, Coursera 2.1). None of the elements work by themselves and therefore the fundamental aim is to create an engaging experience that is aligned with the purpose of the activity itself, by the use of multiple game elements as tools for it (Zichermann and Cunningham 2011; Zichermann and Linder 2013).

2.3.3 Purpose of gamification

Gamification serves as great potential for organizations and can contribute the better results when designed to enhance specific business objectives (Bess 2013). The purpose of gamification in organizational context is to take the engagement, learning and employee motivation to the next level; not only loosely tie employees with a small game that makes the days more fun but rather to create long term commitment (Domíniguez et al. 2013; Kapp 2012; Simões et al. 2013). The purpose is to increase the motivation to do something requested by bringing the game elements to the everyday activities and through that create engagement, and increase the motivation and involvement (Werbach 2014, Coursera 2.1). Osak states in Financial Post (2013) that “Fundamentally, Gamification looks to turn disengaged individuals into active and productive participants using fun and social competition, instead of binary rewards and punishment.”

Additionally, the purpose is to learn from games by using them as a tool for learning and enhance the understanding and remembering of things (Simões et al. 2013; Werbach 2014, Coursera 2.1.). Gamification is also useful to show the players the importance of commitment together with the cause and effect (Mehta and Kass 2012). As games are perceived as fun, (Kim et al. 2009) the players' interest will awake and their motivation to conduct boring or uninteresting tasks will be hidden behind the enjoyment of the game like, fun, activity. However, Domíniguez et al. (2013) point out that the player engagement and experience are especially awaked towards system or environment. Therefore, using gamification in a certain work environment will increase the confidence with the system. Through gamification, tasks that employees find unnecessary and boring can be designed to be more appealing and therefore conducted regularly (Sheely, 2013, gamification.co). Similarly, Bunchball (2010) highlights the possibility to use gamification to affect the behaviour of the individuals, to influence them, and make them more participative in certain activities. Furthermore, the use of gamification in business context can align the employees especially in a team environment and serve as a connecting surface for the employees (Mainemalis and Ronson 2006; Sandelans 2010).

2.3.4 Elements of gamification

Gamification is built of certain building blocks that all share an important role in creating the engaging and motivational gamified environment (Bunchball 2010). Gamification can be seen as a process having multiple game-elements and techniques contributing to the outcome of a gamified non-game environment (Bhobe 2014, gamification.co; Kapp 2012, Hamari 2013; Zichermann and Linder 2013). Bunchball (2010) state that game elements can be used individually or together to build an engaging experience, contradictory to all other references that agree that none of the elements work alone. It is the interrelationships within the multiple elements that result to the engaging outcome (Kapp 2012).

The game elements can be divided into three categories, where the dynamics, mechanics, and components serve all a crucial role for the overall experience (Werbach 2014, Coursera 4.2). However, as there is no clear definition of their cohesion (see Figure 5), I have formed an own understanding about the elements in each category. Likewise Werbach (2014, Coursera 4.2) remarks that the different game dynamics

appear in the gamified contexts through multiple components, and therefore the dynamics, mechanics and elements are vastly overlapping.

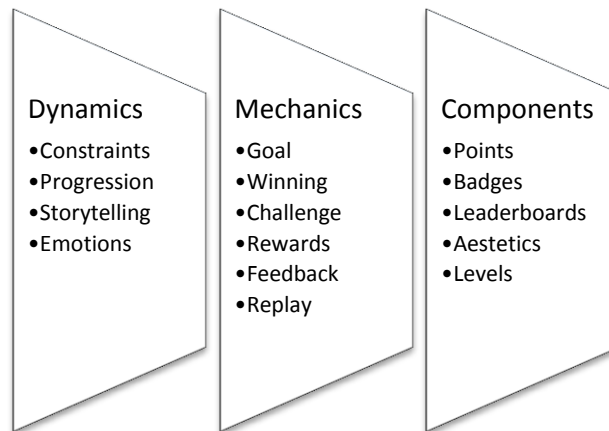


Figure 5 Categories of game elements in gamification

The game elements should be used in diverse combinations to ensure engaging experiences for different players (Zichermann and Cunningham 2011). Additionally, the contexts and elements should be designed in align with the real business environment and the purpose of the activities to ensure the benefits of gamification (Bhobe 2014, gamification.co; Zichermann and Cunningham 2011). It is shown that merely to add game elements to a context do not result in engagement or increase motivation, rather the adequate elements in a certain environment will lead to a desired outcome (Hamari 2013).

2.3.4.1 Game dynamics

Game dynamics serve as the basic, underlying framework for the gamification to take place. The dynamics guide the game, set up the rules and define the overall aim and purpose of the game (Werbach 2014, Coursera, 4.2).

2.3.4.1.1 Constraints

The constraints, the set of rules that the gamified activity should follow, creates the essential game board for the gamified activities (Bess 2013; Werbach 2014, Coursera 4.2). The rules indicate how to score points, how to move or act in the game, who the players are and how to distinguish a winner. Furthermore, rules can be defined differently on the operational basis, or for the social behaviour in the game and their existence is crucial for all the actions to occur (Kapp 2012). Bess (2013; 34) distinguish

three different sets of rules; physical rules, business rules and social rules. The physical rules (operational rules for Kapp, 2012; 30) create the game environment and constraints for the activities to occur. Business rules are already reflecting towards the gamified environments and within which industry the gamified experience is targeted. Social rules are the rules defining the behavior and social constraints within the gamified environment (Bess 2013 and Kapp 2012). Therefore, the gamified environment should be designed to clearly signal the constraints for the players (Werbach 2014, Coursera 4.2).

2.3.4.1.2 Progression

The feeling of improving, to see the path of learning, is a crucial motivational factor in the games as people have a natural desire to develop, learn, and become better (Ryan et al. 2013, Accenture.com). To visually see the improvement of the performance and learning from mistakes serve as a reward by itself, which will even increase the individuals desire to continue a certain activity (Kapp 2012). Additionally, pattern recognition can also serve as a notion of progression and development for the player (Bunchball 2010; Zichermann and Cunningham 2011). The instant feedback works as an incentive for the player (Kapp 2012). If the player is able to analyze the gamified environment and the actions taken place, the understanding will increase the satisfaction and therefore work as a motivational factor to further develop (Zichermann and Cunningham, 2011).

2.3.4.1.3 Storytelling and Narrative

A story is used as a path to the player to go through the game towards the goal. Kapp (2012) explain the stories to guide attention and action, provide context, and contributes to broader understanding. Furthermore, through stories it is easier to explain and guide behavior (Kapp 2012).The story does not need to be obvious, an underlying thought that the player has of the game can serve as a narrative; the name on the game or the objects in the game can be reflecting a story, the actual game environment is a story or sometimes even the player can be him or herself creating a story (Kapp 2012). Despite, Werbach (2014, Coursera 4.2) mentions pictures and aligned graphical experience also to be an indicator for a narrative. However, Kapp (2012) explain that all games do not always have a clear narrative attached to the game or a storyline although it is a useful tool especially for the learning and widely used in the educational contexts.

2.3.4.1.4 Emotions

Most of the activities that humans perform include a set of underlying emotions (Kapp 2012). Fun is often linked to games and gamification, and therefore to understand the individuals perceptions of fun are of crucial value (Kapp 2012). Zichermann and Cunningham (2011) discuss four different kinds of fun originally presented by Nicole Lazzaro (2004) that should be designed into a gamified context. The distinguished types of fun are hard fun, easy fun, altered state fun and social fun. Individuals can perceive fun differently, but the impact of it on the meaningfulness of the activity is always significant. Hard fun is appealing for people who enjoy challenges, strategies, goals, and achievements. Easy fun on the other hand is affecting people that enjoy the adventure and experiences and have a curious attitude towards the game. Altered fun is internally appearing fun that is awoken through external experiences. Social fun appears through the experience that is shared with other players and social activities (Lazzaro 2004; Zichermann and Cunningham 2011). Furthermore, Werbach (2014, Coursera 3.4) lists elements that commonly are seen as fun in game like activities: winning, problem-solving, exploring, chilling, teamwork, recognition, triumphing, collecting, surprise, imagination, sharing, role playing, customization, and goofing off. A well designed and engaging gamified activity should be a combination of the different sorts of fun to be appealing for different individuals (Werbach 2014, Coursera 3.4). However, the enjoyment and fun should be linked to the real activity and the desired outcome to increase the meaning of it for the player (Werbach 2014, Coursera 3.6).

Additionally, Zichermann and Cunningham (2011) explain social engagement loops that can be created in games to increase the re-engagement through a motivating emotion. The re-engagement is followed by a social activity or action, which will lead to a visual progress or a reward. This activity is again linked back to the motivating emotion, and therefore encouraging the loop to start off again (Zichermann and Cunningham 2011). Therefore the emotions play a significant role in individuals engagement and likeliness to repeat a certain activity, and even further to be hooked.

2.3.4.2 Game mechanics

Also game mechanics are elements that can be found in every game. Similar to all of them is that they drive the process, the game, forward, and are therefore linked for the activities that take place in the game (Werbach 2014, Coursera 4.2).

2.3.4.2.1 Goal

A goal, or the purpose of the game, is a critical element that distinguishes a game from a normal play (Kapp, 2012). Through a goal, the game immediately has a focus, a purpose, and often a quantifiable outcome as a result of the competition. Furthermore, Kapp (2012) argues that the goal is rarely reached only through one suggested way, and therefore the flexibility of the possible routes is one of the motivational factors for the player. This also supports the challenge and competition that most of the individuals are looking for. Additionally, clearly distinguishable goals that are broken into smaller milestones support the players desire to complete the game and therefore see the progression that is even a motivational factor for individuals (Ryan et al. 2013). This is also aligned with the purpose of the goals; the need to build up, gain, and train skills before you can reach a specific target (Kapp, 2012).

2.3.4.2.2 Winning

Competition is seen as part of human essence, and therefore the desire to win exist in most of the individuals (Bunchball 2010). Contrary to games, in gamification the winning is not the core goal; the aim is rather to master the activities and the environment. In mastery, the player does not only win, but also increases and gathers knowledge and control, and most importantly, see the improvement process (Zichermann and Linder, 2013). The broadened experience and gained knowledge can therefore function as the reward of winning oneself.

However, the winning can be even seen as a demotivating factor if the game is seen as too easy, or even too hard (Zichermann and Cunningham, 2011). However, as everyone is aiming and searching for the mastery in most of the cases, the individuals most often go through five steps of mastery before reaching the ultimate state of “visionary” (Zichermann and Cunningham 2011;30). Zichermann and Cunningham (2011) point out though that the mastery should always be seen from an individual point of view; to reach the mastery of the individually aimed desires, rather than commonly assumed goals. However, as one of the important elements of games and gamification is the possibility to step out the game at any stage, it can even be argues that the overall mastery might and should not be the common desire (Zichermann and Cunningham, 2011).

2.3.4.2.3 Time

Time and especially a visual time demands the player to work under pressure and has a high motivational and even a stress enhancing effect (Kapp 2012). Furthermore, time can also be one of the elements in the game; how to allocate the time that the player has for the multiple options that are available and should be done (Kapp 2012). Kapp (2012) states time to also be an element that can be drawn down, compressed, in a game. A situation that would take multiple weeks in reality can be compressed to only few minutes in a game and it is used in simulations or when showing a cause and an effect of phenomena during a longer time period (Kapp 2012). Furthermore, if the time is not managed well in a game, might the lifecycle of a game feel too long and therefore affect the players' interest (Kapp, 2012).

2.3.4.2.4 Challenge

Each gamified environment should have a motivational challenge for the player to tackle on the way (Zichermann and Cunningham 2011). However, Zichermann and Cunningham 2011 argue that it is important that the gamified experience is designed in a way that the player finds a flow zone; in a perfect balance between challenges and skills and a clear progression occurring. Therefore to understand the players' competence levels are crucial (Zichermann and Cunningham 2011). The challenge for the game designers is to design content where the player has a sense of control and balanced challenge level throughout the entire gamified experience (Kapp 2012).

2.3.4.2.5 Rewards

Zichermann and Linder (2013) state that rewards are one of the most important elements of gamification. They also claim that rewards can be both intrinsic and extrinsic, aiming to satisfy the player primarily intrinsically, but sometimes causing also extrinsic satisfaction. Further they state that reward can be achieved in many forms in a game; badges, points, permission to move to a next level. Not only the notion for yourself that you have scored high, but to show that achievement to other players in the game, can be rewarding for the player (Zichermann and Linder 2013). There are different opinions about how and when the scores and points should be achieved; either gained in an early stage of the game to hook the players, or at later stage with a strong link to something challenging achieved (Kapp, 2012). Zichermann and

Cunningham (2011) list status, access, power and stuff as powerful rewards, with the first ones having a stronger effect and being easier and cheaper to produce in the game.

2.3.4.2.6 Feedback

A frequent and immediate feedback is one of the core elements of an engaging gamified situation; Zichermann and Cunningham (2011) even see feedback as one of the most important elements of gamification. In many games, the feedback appears naturally and is visible all the time (Kapp 2012). Feedback ensures that the player receives all the time information about the progress (Zichermann and Cunningham 2011). Often this feedback shows if the player is doing “right” or “wrong” in the game, but games rarely give direct answers, or suggestions, or correct the player (Kapp 2012). In order to train and develop the player, Kapp (2012) explains hints and wrong choices to guide the player. Feedback should be clear for the player, as especially unclear negative feedback can cause demotivation among the players (Kapp 2012). Additionally, the feedback should be efficient and gained immediately after an action has taken place (Bess 2013).

2.3.4.2.7 Replay

Kapp (2012) argue the replay to be often a forgotten and under estimated game element. He explains the possibility to do over an action is actually the permission to fail. This will encourage the player to try different things and discover new ways if the fail is not seen as negative and charged with multiple minus points. This way the player also learns from mistakes and can use that gained knowledge in a further state, or in another situation (Kapp 2012). Additionally, as failure is a part of a gaming process; a game where failure does not exist is not appealing (Kapp 2012).

2.3.4.3 Game components

Points, badges or achievements, levels, leaderboards and rewards are commonly seen as the basic game elements that form the path to the gamification (Zichermann and Linder 2013). However, the gamification is not only about those commonly used elements, it is about the whole picture that is painted together with the certain elements of gamification, and the excitement and fun that the player feels while gaming (Zichermann and Cunningham 2011).

2.3.4.3.1 Points

Zichermann and Cunningham (2011: 36) are of opinion that points are “an absolute requirement for all gamified systems”. Zichermann and Linder (2013) agree accordingly and state that points are a useful way to track behavior, keep score and provide feedback for the players. The purpose of points is to satisfy the users desire to get feedback of the actions and to see the score and success that is even possibly to compare with others (Zichermann and Linder 2013; Zichermann and Cunningham 2011; Werbach 2014, Coursera, 4.2). However, points do not always need to be visible numbers; they can even be reflected from behaviors, environments or visual elements, and can therefore use other metrics as well (Zichermann and Cunningham 2011). However, as Bhobe (2013, hrexaminer.com) criticizes, the points should not be given of too easy achievements, and without a link to the ultimate goal of the game. Additionally, points are often used to indicate the winner, and therefore should be gained fairly (Werbach 2014, Coursera 4.2).

Points can be divided into further categories according to their function; experience, redeemable, reputation, skill and karma points (Zichermann and Cunningham 2011; Zichermann and Linder, 2013). Depending on the points, they can have significantly different tasks in the gamified context. Bunchball (2010) defines points to be an efficient way to signal and indicate a certain status, whereas Kapp (2010), Zichermann and Cunningham (2011) and Zichermann and Linder (2013) mention badges and other achievements to be more powerful ways to indicate status. Therefore, points can be used to signalize status, used as a tool to gain something else or even build social environment. Furthermore, the points can be seen as the core motivational element, or to work as supportive encouragements in the background (Zichermann and Cunningham 2011).

2.3.4.3.2 Badges

Some of the researchers has stated badges to be the outline of gamification, and even has referred to badgification (Hamari 2013). Some people are more motivated to collect things than others (Zichermann and Cunningham 2011).The main function of badges is to reflect the achievements and symbol the accomplishments for the player and for the competitors (Zichermann and Cunningham, 2011; Werbach 2014, Coursera 4.2). By using badges, the player can show their success and achievements as well as compare them with the badges of others. This will encourage the competition and possibly

inspire the players to try to achieve even more badges (Zichermann and Linder 2013; Zichermann and Cunningham 2011; Werbach 2014, Coursera, 4.2). Badges can be used as an unexpected reward, or as a logical remuneration, as a social promotion of the self-image of the players, but also for marking the progress of the individual (Zichermann and Cunningham 2011). Badges can be a motivational factor only of the value of themselves; some people are motivated to collect things (Zichermann and Cunningham 2011).

2.3.4.3.3 Leaderboards

The ranking of players can be a powerful incentive in a gamified environment (Zichermann and Linder 2013). Leaderboards are the simplest way for the players to see and compare their own progress, achievements, and results with the other players (Zichermann and Cunningham 2011; Werbach 2014, Coursera 4,2). However, if the rankings lack a meaning can they even cause demotivation among the players (Bhobe 2014, gamification.co; Zichermann and Linder 2013). If the leaderboards exclude part of the players, can those players feel dishonestly treated, or see their chances for success so token that they are demotivated even to try (Zichermann and Linder 2013). In the worst case, those players can even decide to leave the gamified environment (Bhobe 2014, gamification.co; Zichermann and Linder 2013). Zichermann and Cunningham (2011) encourages the use of no disincentive leaderboards, which instead of showing the real score, places the players in the middle to encourage them to aim higher by showing how little the space is between you and the one ahead. Additionally, team based leaderboards and goals that are divided into shorter, more easily achieved; milestones are efficient ways to use leaderboards. Furthermore, leaderboards those indicate and show individual progress and improvement are often even more motivating (Bhobe 2013, hrexaminer.com). Therefore more personalized leaderboards are better influencers than simple, traditional leaderboards (Werbach 2014, Coursera, 4,2).

2.3.4.3.4 Aesthetics

Visuality, pictures, and beauty has an important role in the games and gamified environments (Kapp 2012). Their existence is not crucial for the game itself; but serve as an important role for the game experience (Kapp 2012; Zichermann and Cunningham 2011; Zichermann and Linder 2013). They create the game environment, objects and the actions in the game and therefore emphasizes the game experience

(Zichermann and Cunningham 2011; Zichermann and Linder 2013). The aesthetics strengthens the storyline and the meaning of the game and the taken actions; the aesthetic does not need to be reflecting the reality (Kapp 2012). However, Kapp (2012) point out the lack of the aesthetics to be often the reason why the gamified experience is less appealing in educational games and simulations.

2.3.4.3.5 Levels

Levels indicate the players progress over the gamified activity, or they can be seen as an achievement if the player has moved from one level to another and therefore reflecting over the competence and progress of the player (Kapp 2012; Zichermann and Cunningham 2011; Zichermann and Linder 2013). Levels are one way to indicate feedback of the progress for the player, and therefore serve as a motivator (Zichermann and Cunningham, 2011). Bunchball (2010) describes levels as social indicator of the progress, whereas Zichermann and Cunningham (2011) and Zichermann and Linder, (2013) defines levels to show the progress and development for the individual.

Additionally, levels serve an important division for skills acquiring. Certain levels expect certain skills, and as moving on levels new skills are required together with the previous abilities (Kapp 2012). The development of the skills together with a narrative that is revealed by each level works also as a motivational factor hooking the player even more to the gamified context (Kapp 2012). Progress bar is a type of level indicator of the progress of the player in percentages or completeness bars. Progress bars are a widely used element to encourage people to add information or to achieve a certain level; they influence people's desire to become complete (Zichermann and Cunningham 2011).

2.3.5 Challenges of gamification

One of the crucial success factors for a gamification application to increase employee efficiency is its linkage to the platforms, systems and environment of everyday work tasks. Moreover, unless linked, it is hard to understand the value of the gamified activities but the possibilities of gamification are neither fully achieved (Bhobe 2013: hrexaminer.com) Deloitte (www) also mentions the challenge of integration of the everyday work tasks to a shared platform where gamification can be applied.

Another challenge that is mentioned by Bhohe (2013, hrecaminer.com) is the stability of the environment. In order to keep the activities engaging and challenging, is there a need to constantly develop, modify and improve the gamified experience. Updates and upgrading are crucial to hook the users; the players need to look forward to the information and new opportunities and encounters. Additionally, as the excitement often declines with time, to keep the excitement up with events, news and challenges is fundamental (Bhohe 2013, hrecaminer.com). Moreover, the designed path to the goal in gamification versus the unknown path to the unknown goals in real games can cause lack of real game spirit in the gamified activities and affect the attitudes towards the gamified platform (Hamari 2013).

Furthermore, the notion of something serious to be fun can be hard for certain companies to accept and see as a benefit for their operations. Additionally, the work-life balance can cause problems; to distinguish where the lines are drawn between work activities leisure time actions (Gamification goes to work, Deloitte.com).

Although the elements of gamification seem clear and straight forward to be applied in different contexts, the challenge is to understand which of all the game elements will serve and support the desired outcome of the action to be gamified players (Zichermann and Cunningham 2011). Zichermann and Cunningham (2011) highlight the importance to understand the ultimate goal that is to be reached, and design the gamified environment accordingly to engage and motivate the users. Additionally, it is uncertain how all the elements of gamification will affect different kind of people and which elements support the desired outcomes (Domíniguez et al. 2013). As an example, Domíniguez et al. (2013) found out that leaderboards, trophies, graphs and colourfulness increased the learning of the players in a cooperative environment, but when the competition was increased the learning outcomes decreased. Similarly, it is crucial to understand the individuals and their perception of games and game like activities to be able to design a gamified experience in work environment that is motivating for them (Harviainen et al. 2012).

Furthermore, as gamification is often conducted through technical devices, might the efficiency and technical issues challenge the adoption of the gamified activities (Domíniguez et al. 2013). Therefore Domíniguez et al. (2013) encourage testing the activities before the launce as the unsatisfying usability might affect the future attitude and motivation of the learners.

2.3.6 Gamification in learning environments

There are yet no significant research results showing supreme outcomes of gamified learning environments compared with traditional class room learning (Domíniguez et al. 2013). However, Domíniguez et al. (2013) still state that the motivation of the learners increase and their perception of the learning experience were more positive when the environment was gamified. Harviainen et al. (2012) conclude also that if the learning environment is too competitive, there is no space for exploration or learning from mistakes, and the focus is on the end goal and the excellent performance rather than learning. This problem was faced in a game-based simulation and the suggested solution was to prevent the players from knowing about each other's progress (Harviainen et al. 2012). A further problem was that the players might look for the right answer and loop-holes in the game to ensure the victory rather than exploring and understanding the learning content (Harviainen et al. 2012). However, as Harviainen et al. (2012) also point out, the winning in the game should be aligned with the learning content, and therefore in a well-designed gamified learning environment this problem will not occur.

Furthermore, the use of badges in a learning environment has not proven to directly increase the learning, but it facilitated the activity level of the learners that showed initial interest and success in the training environment (Hamari 2013). Moreover, Domíniguez et al. (2013) point out the eLearning environment to be most ideal considering the required technology and nature of the training activities designed for an online platform.

Simões et al. (2013) argue that both fun and engaging tools should be found in educational learning environments. Additionally, they state that repeated experimentation, rapid and immediate feedback, individual skill levels, increasing task difficulty, smaller milestones and clear goals, flexibility together with recognition and rewards should be included in gamified learning environments. Furthermore, the learning-by-doing and positive failure feedback should be ensured to support the learning. Furthermore, Simões et al. (2013) state that intrinsically motivational factors should be promoted rather than external rewards to ensure the enjoyment and pleasure that would result in a flow experience of the learning. Additionally, gamified environments should support social recognition from peers which enhances motivation (Simões et al. 2013).

Peng and Hsieh (2012) state that competition and cooperation are widely used game elements in learning contexts. Fu, Wu and Ho (2009: 550) found out in their study comparing different atmospheres among university students that a “coopetitive” study environment was seen as more efficient than a purely competitive learning environment. Similarly, Peng and Hsieh (2012) found out that cooperation was significantly stronger influencer for the motivation and for learning than pure competition. Additionally, their study revealed that the learners were more committed towards the game goal when they were in groups of friends than in groups of strangers. Therefore the use of game elements in learning context is very situation dependent.

3 METHODOLOGY

This chapter will describe the used methods for the empirical data collection as well as discuss their philosophical origins. The thesis will follow a constructionist research design and support the methodology of grounded theory research and abductive reasoning (Easterby-Smith et al. 2012) in form of a qualitative research through interviews and observation.

First the research philosophy and research design are described. After, the research strategy is explained together with a description of the sample and data collection. Further, the data analysis methods will be discussed together with the analyses of the quality of the conducted research.

3.1 Research philosophy and research design

The thesis will follow a constructionist research design and the grounded theory research. The constructionist design has its roots in relativist and nominalist ontologies with a notion that there is no one truth. Furthermore, the constructionist research is rather finding a linkage between multiple realities and truths, and trying to understand how these appear in normal life (Easterby-Smith et al. 2012). In constructivism, linkage between things and how they are combined is of high interest. Therefore, grounded theory has the implication of to find linked events and phenomenon in different situations, and to understand how they are related (Fendt and Sachs, 2008).

Additionally, the constructionist design focus is on the interaction and the behavior rather than emotions (Silverman 2005). I think that this is a suitable ground for my research, as the gamification phenomenon does not have one definite appearance and the use of games in employee training is unevenly established. Furthermore, as there is no one proven right way to use gamification as a tool for engagement and motivation, as well as the appearance of the phenomena itself is unclear; the constructionist design is the most appropriate for this study. The grounded theory can also have a positivist research design, but as the theory of gamification is weak due to the little research and novelty of the phenomenon, is the constructionist research design more suitable.

However, as contrasting opinions exist regarding the researcher's previous knowledge of the researched topic and the amount of interaction between the researcher and the researched object in the grounded theory, it is crucial to distinguish the need for a

certain pre understanding about the gamification phenomenon as well as the engagement and motivation for training activities at organizations before the collection of empirical data (Easterby-Smith et al. 2012). Therefore, the thesis is following the ideology of Strauss and Corbin regarding the pre understanding of the researched topic, but supports the mention of Glaser about the ontology; there might not be a constructed answer (in Easterby-Smith et al. 2012: 59). Furthermore, the thesis is following an inductive reasoning, trying to find generalizable assumptions from the empirical data. However, as the empirical data is collected with a reasonably broad understanding of the related theories, is the reasoning in the end abduktiv. Moreover, the thesis is following a systematic and overlapping analysis of the empirical findings as the grounded theory is constantly combining the empirical findings to the theoretical implications and received results to further find new informants to seek new insights from (Fendt and Sachs, 2008). This approach resulted in the relatively big amount of interviewed representatives of the field.

3.2 Research Strategy

The empirical data was collected with two methods; semi structured interviews and observation. The interviews were designed as semi-structured, guided open interviews with some previously designed open ended questions with a topic guide (Easterby-Smith et al. 2012). As the focus was on the interviewees own perceptions, the interviews often developed into further discussions and insights. This was intentional, as the topic of gamification, motivation, and use of games in training contexts was often different among the interviewees and therefore certain information was revealed first after a longer, even off the topic, discussion. It is important for the research design that the data is speaking of itself and bring up new insights that are not expected, and this was the aim with the broad interviews. Additionally, this way the laddering and elaborating on the questions or voice expressions were also possible and used extensively (Easterby-Smith et al. 2012).

Although the interviewees were sent a short description of gamification, and the topics that the interview would cover, were the interviews rarely following the topics and the discussion always developed further. This was also intentional and aligned with the research strategy; for grounded theory research a certain amount of previous knowledge from certain area is expected, but as the empirical data is expected to bring up the theory, should the questions not be restricting the discussion (Easterby-Smith et

al. 2012). Similarly, the interviews with three training consultants and three game designers were of semi-structured nature having slightly modified areas; the focus was in training activities and motivational elements with the training consultant whereas the gamification and game-elements was discussed more deeply with the game designers.

Additionally, in order to understand more deeply the reasoning and behavioral part of the gamified activities, were two different observations done. A simulation exercise with sales representatives was observed for 2 days. The purpose was to observe as a complete observer (Easterby-Smith et al. 2012: 142) how the employees react to the situation, how motivated they were towards the training activity, and how gamified elements could possibly fit in. Special attention was paid to emotions, reactions and atmosphere during the simulation game. Furthermore, an eLearning platform was observed as a participant, (Easterby-Smith et al., 2012: 142) and analyzed in order to get an understanding about the possibilities for gamification to increase the employee engagement and motivation towards the online trainings. Special attention was paid to the participants' feelings, reactions and cause and effect of the certain behaviors.

3.3 Description of the sample and data collection

The sample was reached by contacting HR representatives from different industries, different training consultants with different training methods, and game designers with different backgrounds. Guidelines for a purposeful sampling (Patton 2002: 230) was followed in order to have representatives from multiple organizations, and therefore representing different kinds of organizational cultures as well as types of employees. Different contacts, newspapers and networks were used to find suitable companies and interview objects that are willing to discuss the possibilities of gamification in training context. As a result, interviews were conducted with 11 representatives from organizations Human Resources departments. All the representatives were responsible for employee learning and development, or the training activities in general. Two of the organizations had two representatives (HR4 + HR5 and HR9 + HR10), having different responsibility areas within employee development and training. Table 1 shows interviewed HR representatives' titles and their pseudonyms for the thesis, the industry where they are active in and the interview date.

Table 1 Summary of the HR representatives

Title	Pseudonym	Industry they are active in	Interview date
HR Director	HR 1	IT solutions and services	20.03.14
Chief Competence Officer	HR 2	Advisory service	28.03.14
Human Resource Officer	HR 3	Technical solutions and services	07.04.14
Head of Competence Development	HR 4	Products and services for heavy industry	26.03.14
Corporate Head of Leadership Development	HR 5	Products and services for heavy industry	25.03.14
Human Resources Coordinator	HR 6	Cleaning services	08.04.14
Competence Manager	HR 7	Food and Restaurant Services	26.03.14
Development Director	HR 8	Retail trade	30.04.14
Learning and Development	HR 9	Metal and consumer brands	23.04.14
Human Resource Development Specialist	HR 10	Metal and consumer brands	24.04.14
Head of Human Resources	HR 11	Pharmaceutical products and services	08.04.14

Similarly, guidelines for purposeful sampling (Patton 2002: 230) were followed when reaching three training consultant with the focus to find representatives from different training fields. They were found likewise through different contacts and networks. Consultant A performs sales trainings with a sales simulation, Consultant B conducts skill trainings of a different kind and the Consultant C has a focus in different processes at organizations and their modelling. Table 2 summarizes the information of the training consultants.

Table 2 Summary of the Training consultants

Title	Pseudonym	Training field	Interview date
Training consultant	Consultant A	Sales trainings	31.03.14
Training consultant	Consultant B	Skill trainings	01.04.14
Training consultant	Consultant C	Management training and Process modelling	22.04.14

Similarly, the game designers represent different game fields and they were found by using contacts and online search functions and following the guidelines for purposeful sampling (Patton 2002: 230). Game Designer A has a background in role playing, Game Designer B has previously been a software architect and has currently the interest in consumer entertainment games and Game Designer C has broad experience from information and communication technology. They are all currently designing games or gamified environments for companies. Table 3 summarizes the information of the Game Designers.

Table 3 Summary of the Game Designers

Title	Pseudonym	Background	Interview date
Game Designer	Game Designer A	Role plays	29.04.14
Game Designer	Game Designer B	Information and software architect	12.05.14
Game Designer	Game Designer C	ICT experience on mobile devices	06.05.14

Most of the interviews were conducted face-to-face, but due to the lack of time or long distances also phone and Skype were used. The language for the interviews was Finnish with few exceptions in English. All the interviews were recorded to ensure a safe and precise data collection and enable the interviewee to focus on the discussion. The length of the interviews varied between 25 minutes to 2, 5 hours depending on the excitement and enthusiasm of the interviewee and the available time. Furthermore, all the interviews were transcribed to ensure the intensive analysis of the data later on and allowing the interviewer to map similarities and assist deep understanding.

The observations were done for one two day sales simulation game and for one eLearning environment having multiple eLearning courses within the field of customer service and organizational culture. Table 4 summarizes the details of the observations. During both observations detailed field notes were taken with a focus on the facial expressions and actions of the observant. During the sales simulation game the observation was focused on the actions, behavior and reactions of the observant, whereas in the eLearning observation the focus was on the participants thoughts and reactions related to the eLearning environment. However, in order to grasp an overall understanding about the situations did the field notes also consist of notes related to situational factors, the environment, the atmosphere and the observed people.

Table 4 Summary of the observations

Observation	Pseudonym	Field for training	Observation date
Sales simulation game	Sales simulation observation	Sales activities	03.03.14 and 04.03.14
eLearning environment	eLearning observation	Customer service and organizational culture	16.04.14

3.4 Data analysis

As the abductive reasoning and grounded theory is trying to increase new knowledge and assumptions from the empirical data, was the analysis conducted very freely and without strictly defined areas of interest. Furthermore, the lack of hypothesis or previous research within the field supported the use of grounded analysis (Easterby-Smith et al. 2012).

The analysis started by finding related topics, factors and words related to similar subjects from both the interviews and the observations. These words and topics were further combined and compared to find linkages, similarities and reasoning behind them in order to be able to distinguish bigger topic groups. Topic groups, or subjects, that were brought up partly by the semi structure of the interviews, and partly of the phenomena discussed, were *motivation and interest towards the training activities, the use of games and game related activities in trainings and their characteristics, and the game elements and tactics that could be used in training situations in future*. The different topics that the empirical data brought up were constantly compared and the aim was to find linkages and similarities to be able to find generalizable theoretical

implications (Easterby-Smith et al. 2012; Fendt and Sachs 2008). To ensure that the analysis was done by looking at the data in general terms rather than actively finding specific connections and linkages was even a long time frame together with a long “offtime” from the empirical data used before the analysis was started.

3.5 Research quality

Although generally the qualitative research methods are seen as not contributing to generalizable results and in constructionist studies the coverage of the data and different perspectives might be a challenge (Easterby-Smith et al., 2012: 62), are the results of the conducted study of importance when trying to understand the use of gamification in training activities. The research quality is judged by using the traditional scientific research criteria, taking the validity, reliability, generalizability, and objectivity into consideration (Patton 2002: 544).

The validity of the research can be argued to be high as the study has used triangulation, to search for multiple representatives with opposing viewpoints, as a base for the gathering of data (Patton 2002: 247). Furthermore, even multiple representatives were interviewed with the assumed same viewpoint to ensure the broad insights of the phenomenon discussed. Furthermore, even the observations were done within two totally opposing training fields; social and team based face-to-face simulation and individually conducted online training.

The reliability and generalizability of the thesis is time dependent. If the research would be conducted again in nearby future by another researcher, would the answers be likely to be the same. However, when the phenomena of gamification will be well established also among organizations, will the HR managers probably have more informative answers and examples of how game elements have been used in training activities. Therefore, the time is a defining factor for the reliability in this study. Additionally, the reliability of the research might have been affected by the need to explain the concept of games and gamification to certain interviewees due to the not yet established terminology and novelty of the activities. However, all the HR representatives and training consultants were sent a short description of gamification, so therefore they were expected to be aware of the topic and able to answer the questions accordingly. Despite this, often the interviewer needed to explain the phenomena and terminology in the interview and it can therefore affect the reliability.

Furthermore, the objectivity of the research was tackled with the time plan of the empirical data collection; the interview process started already at an early phase of the project, and therefore the interviewer was not affected by any theoretical assumptions and was able to remain as neutral as possible.

4 FINDINGS

This chapter will describe the findings from the interviews conducted with Human Resources representatives from organizations, training consultants, game designers, and observations together with an analysis of the findings. The chapter is structured according to the major topics that were lifted up from the empirical data after comparing, analyzing and finding similarities in the used factors, words and discussion topics.

4.1 Motivation and interest towards the training activities

Game Designer A points out that the learning itself is not motivating. He states that *“Mentality like ‘When you do this for 10 000 times, you will learn this’ do not work. There is a need for other ways to motivate.”* All the consultants claim that the employees are relatively excited of the training activities, and expect the organizations’ to provide training. Consultant B even states that *“Today the employees clearly expect the employer to train them. This is a sign of a good work place if they train you. This is the general attitude, even something taken for granted.”* HR4 describes their employees to be *“Hungry for training”*, pointing out that the engagement and motivation towards the training comes from the added value the employees perceive from the trainings. Engagement is also enhanced when senior employees are used in the trainings, and show their engagement. He describes; *“We are business wise we are saying training is loss of productivity and cost driver, but people understand that without the training the people would not be able to do their work properly. So this actually comes through that the managers say that this is important for me and my unit, so please go. - People very seldom decline. Unless is something customer related. Another thing is that we often let people internally do the training than hiring people from outside. This is a strategy that we are following, having senior managers’ at least appearing at the situation and saying hello, this is what we are doing, this is a great contribution to the company, to cheer them up. So the trainees say wow, that even this big person is engaged and is into it and came talk to me.”* HR7 defines that in general, the employees have the initial interest to develop and become better as they are interested in taking extra courses and independently develop themselves. She describes of their eLearning platform; *“Then you can study additional things if you want. It has been exciting to follow, that there might be 1000 people signed in on a Saturday, just for their own joy... It really warms up my heart!”* HR7 even states that

their employees are willing to conduct some additional training on their free time if they value the content and the effort the organization is putting on the training. She explains; *“Then we have professional extra training, very lovely food courses, so half of them is conducted during work and half is done on their free time, so they are very popular. They have initial excitement, people understand that they are expensive courses, there is very fine raw material used, good facilities, and either the best teachers from Finland or overseas. That we actually provide this opportunity for them.”* HR10 further states that employees would want to have more training than the company is providing. HR10 says *“The attitude to develop oneself is generally really good, and our employees would even want to have more of these possibilities to acquire more knowledge.”* Consultant B points out that some of her customers are even very interested of her training methods to ensure that the outcomes of the trainings are aligned with what is measured and expected. She explains; *“When we agree on the content, and we discuss how, so the organizations are interested to hear how the training is done, which methods I am using in the trainings. Meaning that the people are more aware of the training methods. And somehow they try to follow up the impressiveness of the training. And therefore the training method needs to be aligned with the aims and measurements of the outcomes.”*

4.1.1 Important and interesting content

All the HR representatives agree that the content of the trainings need to be interesting and business related to motivate the already overloaded busy employees to be interested and participating. Similarly Consultant B and Consultant A highlights that the employees are motivated of the context and interesting topics. Consultant A states that; *“You have to open up the content, the sales. To open up it as logical ensemble. – likewise the examples and the cases, they need to come from their own world, and to be relevant.”* Consultant B states; *“[People gets motivated of] The content and the topics. I have nice topics. People are generally interested in themselves, and the behavior of others. And the topics are therefore interesting.”* Furthermore according to Consultant C the most important factor for the motivation of employees is the relatedness and importance of the content of the trainings also for the company performance. She says; *“If the employees do not immediately see how the training is linked to the result of the next quarter, they are not interested.”* HR11 states that; *“The interest towards trainings comes through the substance, with the industry, and together with the development within the industry.”*

Likewise Game Designer A states that the content has a crucial role also when designing learning games. Motivation increases if the content is linked with the individuals' personal needs and is designed inspiring. He states; *"The interest depends if the personality and the game meet. The environment and the person."* Consultant C points out that *"When you want to increase the knowhow, and if the development of the knowledge is designed in an interesting way, should the individual use his/her brains and previous knowledge. Then it interests you in a different way. To have a challenge."* Consultant C sees this also as a challenge; *"People are more critical of their use of time and if they can not immediately see the training to have a linkage between the own performance and the next quarters result, they are not interested."* Therefore the training needs to be seen as important and of value.

HR3 from technical solutions provider describes the interest of the employees to come from the core content and context, the knowhow of the industry and the products. *"We have very different kind of people. We have experts within the field of our business that have been with us for past 40 years that get excited of the core product, and the context."* Similarly, HR11 states that the employees at the health care company get motivated of the content and the substance of the trainings, which is strongly related to the industry specific knowledge. HR11 points out that *"And it [good quality trainings] is definitely an expectation, and assumption, from the employees"*. HR11 describes that *"I think that the because our organization is an expert organization, and employees are educated very high, and very proud of their professional know-how, so the interest comes from the desire of the gathering of substance knowledge and broadening it"*. Furthermore HR11 describes that the continuous training that is extensively closely related to the business needs have resulted in the training to be persistently linked to the everyday work. *"The interest comes from the needed substance knowledge and from the development of own knowhow within the field."* Therefore the training activities are not seen as anything separate, rather as one of the everyday work tasks. Further, as the employees are very proud of their competence, are they therefore willing to even increase it.

The observation at the sales simulation showed the importance of the interesting content; as the sales simulation did not use specifically the company's own products, did some of the participant complain about the unrelated content. However, as the focus was rather on the skills than product knowledge, did the participants realize the value of the training afterwards. Furthermore, HR3 states that; *"The older generations*

require even more relevance to the trainings". HR9 and HR10 from the same company state that as the employees have a strong passion and heart for the company success and requires the context and content of the trainings to be clearly aligned and linked to the company aims and desires. HR10 describes that *"From the factory people I think you can clearly see that they have a heart for the company, and they strongly live together with the company."* Further HR10 says that; *"We have realized that it is important that when we discuss the human rights, so we have to go through what these rights mean for Us, the people from our company, and then after that we try to link it to everyday practices of the employees."* Similarly also HR8 has noticed the importance of the content and that it is aligned with the actual work. He states; *"A focus group analysis and an analysis of the everyday work of the individuals ensure that the content of the trainings are aligned and will stay close with the actual work. If this remains apart and not understood, will also the trainings remain separate."* He concludes that the training should be aligned so closely with the everyday work that it wouldn't be seen as something extra, rather as part of the normal days. It is supposed to be an added value, not a burden. During the observation for the eLearning platform the first few minutes the interest towards the topics remained, but as the content was not directly related to the work tasks that the observer was doing, did the interest fade away quickly.

4.1.2 Understand the need for the training

All the organizations point out that the training comes from the need, a demand for more knowledge or improved competences in a certain field. HR11 points out that as the demand comes from the business, and even the employees have noted the need for it, and therefore they have already an initial interest for the training through that. *"The industry creates the certain frames for training"*. HR6 points out that the interest towards learning comes from the realization of the need for the training, that the content is required and the employees realize the value of it. *"It is the need that is the core, and the content comes from there. And therefore we don't train anything that is not of value. We don't train anything that the employee wouldn't need. The point is that we train them so that they will succeed better in their work"*. His service oriented employees get motivated of the relatedness of the training to their everyday work, and often they realize the need themselves. *"And lately we have tried to even emphasize that we train according to the need, we don't shoot a fly with shotgun. So that it will be systematic. So that the people will realize that this according to the need, and*

would therefore be excited. When you learn things that are rights and of value.” HR11 states, as they work in an industry where a certain amount of knowledge and statutes are required, the employees understand the need for the constant training. *“When you come to our company, there is a common training and every year there is a repetition. We remind, we check and we test. And then there is revision test regarding the product safeties. – They are not only conducted ones, they are constant and they are part of our work and they are taken through often. “However, this influences the expected level for the training; she states that “Already this puts the expectations for the training activities very high”. Furthermore, as HR11 describe the employees to get inspired of the outcome of the work: “To help the patients is kind of an inner motivator for all of us, and we want to make everything for the patients.”*

4.1.3 Practical training

According to HR8 the trainings need to be hands on, and related to the real work tasks that it interests the employees. HR8 states *“The training needs to be practical and close to everyday practices. Built to the everyday life, so that the learner feels it to belong to oneself. And if they feel aligned with the training, is it big chance that the change will even happen.”* He states that code of conduct for example is one of the most challenging things to teach; *“The hard things that are taught virtually are code of conduct for example, because it is hard to design so that the individual finds it interesting to oneself, or that it would be related to his/her everyday work.”* HR8 concludes that when the training is brought as close by the normal work routines as possible; *“You have to bring it close by the everyday work, so that there is a clear benefit of the training to the work, or the everyday life. So then it will inspire and motivate. And also will go down well”.*

4.1.4 Valuable training

Furthermore Consultant C states *“They are interested [of the trainings] if they get some value out of it.”* HR8 states that if the employee feels that the training is of value for him/herself, are they willing to take the knowledge and gained competence to use in everyday life. *“It is built around the everyday routines, so that the learner will feel the training to belong to him/her. If the learner feels this way, it is more likely that even the change will happen. “* HR3 mentions that the employees are critical of the value of the trainings they attend. She describes that; *“That is some way; it is rare people that*

want to use their time without avail. They just always need to bring to the context of the everyday work so that it'll feel relevant and useful."

4.1.5 Previous knowledge

Additionally, the amount of previous knowledge related to the training content clearly affects the interest level according to Consultant A. The older and more experienced employees are more passive towards class room lectures with old topics, whereas young employees are eager to learn. *"To a class room training the younger representatives comes eagerly, whereas older representatives are yawning questioning why to need to study the same old."* Also the sales simulation observation revealed that the more experienced sales representatives did not show as much excitement towards the short lecture, or the simulation. However, the day revealed that the 'more experienced' representatives were equally in a need of the training and practice as the younger ones where and therefore the simulation game brought up the lack of certain knowledge, but also supported the learning process and knowledge acquiring. Furthermore, as Consultant A mentions, is the chosen training method together with expectations and previously heard comments of certain training activities affecting their attitude towards the trainings. He explains; *"There is a significant difference in the attitude towards the training depending on the method, if it is a class room lecture or a simulation. And also assuming that no one of their colleagues has attended the training sessions and could tell them what they consist of."*

4.1.6 Inner desire

HR9 states that as their employees have an ambitious attitude towards their professional competence, and are therefore very result and goal oriented. She states that the employees are motivated for the training activities, as they have a desire to develop themselves. *"The possibility to participate the development process motivates. The possibility to have an influence. To have a possibility to develop oneself, and own knowledge. – Professional ambition is seen in many situations. People want to do a lot, and to do it well. Orientation towards results and clear targets are clear."* Similarly HR6 states that although their employees are experts in their everyday work tasks are they still excited to learn new things. *"It certainly inspires when you learn something new"*. HR1 defines the organizational culture and the sense of family to be one of the motivating factors for improving the performances. She describes; *"The*

general length of a career at our company is 8 years, although the past years it has slightly declined. But we definitely have a family feeling in here! We have a very strong company culture; we organize lots of extra activities. – Many of the employees are friends on their free time as well. But the thing what we aim for and have is the ‘Our company’, the company culture. – It is important to raise the spirit. – It is important that people are willing to try their best and are interested.” Similarly, HR9 and HR10 describe the employees to be very proud of their company and what they have reached together, and their interest to reach even further is significant. HR9 says; *“You can clearly see it especially in the cities where we have a factory, where the factory has been the biggest employer and where the whole family has been employed. Pride of the company. And of the fact that we have succeeded. And also you can see that clearly at the campus as well. That we have given a treasure that is this old, so we want to take care of it. That we can not afford to ruin it. And this is something that we look further than only a quarterly basis.”* Therefore the attitudes towards training activities in general are influenced by the desire and the feeling of being part of the company history.

4.1.7 Social environment

HR6 from the service oriented organization describes the social context of the trainings to be one motivator for the employees. The tacit knowledge is shared and gathered on its best in a board game situation, and valued high by their employees. *“To share experiences and tacit knowledge, and service oriented mindset to everyone. And people really liked it, it was nice to gather together, eat well and talk nonsense.”* Similarly, HR10 points out that the employees’ value very high the opportunity to get to know others from the organization, and the training occasions have been very good for this purpose. She states; *“The feedback that we have collected from the trainings clearly indicate that the possibility for networking is definitely the most important thing. That people get to come and meet other people face-top-face.”* Likewise, the sales simulation was used as an aligning activity for the sales representatives; to encourage knowledge sharing and to work with new and different people with positive results.

HR8 states that the manager’s support for all training activities is enormous, and therefore it also affects the employees’ motivation. HR8 points out the importance of the manager’s role in encouraging, but even more in activating the employees for the

training. *“The leadership and the manager – subordinate work. The follow – through of the training. The content need to be interesting and interactive to encourage the activities, but how the completion is followed is the key.”* HR9 describes managers’ role to be extremely important especially in the implementation phase. *“After each training we have a questionnaire, but it is the managers responsibility to check how the training has been assimilated.”* Consultant C states that *“There is a need for a manager in the work life. – If you have played a game, it will increase your understanding, but you still need the manager who makes sure it will be brought into everyday life.”*

4.1.8 Challenges for training activities

4.1.8.1 Different people with different needs

HR3 from technical solutions provider, states is it very hard to define what the employees are interested and what motivates them, as in an organization; *“There is so many different people [working with us]”*. Likewise, HR8 states; *“We have so many different people, I can not state what they are like. It is very hard to define the kind of employees we have. But to identify and understand them is a very big part! Target groups are different. And there is a lot of them.”* Further HR8 states that *“Therefore you have to know what you are training and to whom. All the trainings are very different at us, the target groups. And they need to be recognized. And then some of the trainings go as mass training to everyone. There is different kind of people, those who require more knowledge, and those who learn by listening, those who learn by doing, and those who learn by reading. They all need to be taken into consideration”*. However, Game Designer A and Game Designer B state the obvious; you can not always please everyone

Additionally, HR7 states the amount of different needs for training is very broad and causes challenges. *“The number of people to train is enormous, but the amount of different needs for trainings is even bigger!”* Also HR8 points out that the need, and the expected targets of the trainings are sometimes causing problems. He states; *“The biggest challenge is to find a common understanding of what is the target of the training. – The requirements of the trainings are really high and a challenge is to be able to invest in every training need. Another thing is to see the strategically important trainings, and how to invest in them. And to notice the important ones.”*

Therefore it is the overflow of needs, and the challenge to know what should be trained and emphasized causes a challenge. Also HR2 points out the problem with amount of needed training as a challenge. *“Maybe the ambitiousness. The amount. Compared to the ability to adoption of the knowledge. It is highly overestimated. There is no prioritization of the content. It is too broad, and too complex. And then it is far away from the reality.”* She states *“Less could be more”*; the amount of efficiently assimilated information is relatively little among humans. Game Designer B also points out an important element; *“Not everyone wants to have extra work beside the normal workdays. They only want to do the work. And that’s ok, go for it, you can not do anything to the people that are not interested.”*

4.1.8.2 How to awake interest

HR7 states that as their employees are specialist on their field, is it sometimes hard to find interesting topics and new specialist for the trainings outside the organization as the interest for the trainings clearly is related to the content of the training. She explains; *“As we have a field where there is lots of professionals and experts, they expect that we bring and introduce experts from the field from outside. The challenge is to bring good training from outside the organization, as the competence level inside is already so high.”* Also HR3 and HR11 state that as their employees’ are experts on their field should the content of the training be of extensive interest to awake the employees for it. HR11 says that *“I think that the because our organization is an expert organization, and employees are educated very high, and very proud of their professional know-how, so the interest comes from the desire of the gathering of substance knowledge and broadening it.”* HR3 states more specifically that *“Some get interested of challenges, others from clear processes.”*

Game Designer A states that *“compulsion loop”* is the key for a motivating and inspiring activity. A clear action or activity, feedback and rewards hook the individual to the activity and encourage continuing. Game Designer A uses bubble wrap as an example; *“The feeling of a bubble, the sound of it popping, and the feeling of an empty bubble and satisfaction of it.”* Even the different senses are even affected. He points out that that this can even be reached visually in a virtual world. He states; *“Ideal situation would be if different kind of compulsion loops could be designed one learning environment for example, to be appealing for individuals with different interests.”*

4.1.8.3 Personal training

Another problem mentioned by Consultant C is the relatedness of the training activities and content to the everyday work of the individual. She claims that the employees can not find the training interesting if the content is not personalized, and the employee can not see the connection between the content of the training and the required skills at work. *“No doubt you are not listening if you don’t immediately understand what the value of the training is for me and how and where you are able to use this knowledge“*. However, the challenge is to design the content to fit the individual needs. HR8 states that the participating employees should be taken to the development process to ensure the right content. *“To make interesting content is one motivational solution, but you also have to use people from the focus group to design the content. Although there are experts, some people from the floor too is needed. So that the language is right.”* Furthermore, HR6 mentions the problem to know what kind of training is needed; *“How to map the need better. Now if I am your manager, how do I know you need help with something. That how we are at HR able to know what is needed in which field. Both content wise, but also to know how to motivate and wake the interest towards the training among people.”*

4.1.8.4 Laziness

Consultant C states that an obvious challenge is that humans are lazy and inefficient by nature. *She explains; “Everyone knows that we are naturally lazy. Everything, that is not exactly in our core motivational area need some follow up and encouragement.”* Consultant A defines the will to learn and change own behavior rather to be the main problem. *“The will a big part of the motivation.”* The second observation revealed the same; to start the eLearning training lectures seemed to cause major trouble; it took multiple days before the program was even opened. Additionally, the training felt very unimportant and there was no social pressure to take part of the training. HR5 points out the problem with the eLearning trainings; *“Maybe the problems comes from human nature. It is not participative at all, and the eLearning is relatively easy to be skipped if there is no trick, treat or sanction related to it.”*

4.1.8.5 Concentration

Furthermore, Consultant C points out that even the ability to focus and concentrate long for one thing has decreased and therefore the motivation for long trainings is

lacking. She explains; *“The ability to concentrate has declined. But then again, it might not be a bad thing; as the ability for managing information from multiple channels has improved.”* She describes that the multitasking new generation is used with information flow from multiple directions and they struggle to focus intensively in one thing. *”To have multiple channels constantly on enables the focus to only one channel. This might be because of the information overflow.”* Similarly Consultant A states that people are supposed to concentrate on multiple things at the same time, and furthermore states that this can not be changed and therefore the trainings should rather be adapted to this. He states; *“The desire for impulses, the ability to focus on one thing at a time will decrease, and many other things too at the same time. This is just the fact. You just can not change it”.* The eLearning observation revealed clearly the problem with concentration; as the power point kind of training content and channel for the training was seen as boring and uninteresting, and lasting for 20 minutes, did the participant after 5 minutes already seek to do other things in tandem. HR8 explains that *“I’m not stating that the old way of doing things would be bad, but the style today, that you will be interrupted all the time, so it is hard to do the same way as before. The characteristics of the work have changed, and these new styles [eLearning, games, and gamification] fit very well for it. The new things fit to the style of today. Now we do thousand and one things at the same time. And all the time. But still we need to get things closed too.”*

4.1.8.6 Time

HR5 and HR11 state that the realities of work life, the lack of time and amount of work are factors even affecting on the excitement towards the trainings. HR11 describes the time to be the biggest challenge; *“ The challenges are related to the combination of own lack of time, own role, own work tasks performance and time for training. That where do you find the time to sit down and train yourself.”* HR5 says that *“I am sure that everyone considers it [training] important but I am afraid that the realities of life are just so that there is neither time nor energy for learning.”* According to HR5 the time is a crucial factor and a big challenge for the training activities especially in an international organization. *“A challenge is to get people to come anywhere when it is a global organization and when it comes to common modus that you want to train. You have to do it cost-efficiently, so maybe we will change from attendance class room trainings to virtual trainings to save time and money.”*

Consultant C claims that this is a big change she can see happened during the past 5 years; *“Employees are more critical regarding their use of time and usefulness of the trainings.”* Further, she states that *“In today’s world it is hard to force everyone to be at the same place at the same time.”* HR8 states that some of the employees might also have a challenge to find time for their trainings He states; *“Another [challenge] is that how the floor workers find time from their hectic days to learn and develop them.”* Furthermore, he describes that *“One challenge was how to find time at the shop, and if there is even a computer available, to go and read some electric material. – There is people that are not used to use computers or smartphones during their work tasks”* and defines therefore the time combined with method to have an important role, also related to the time use. HR10 states that the employees are excited of the trainings, but it is rather about if the time allows them to participate. *“A store environment is challenging; if the sales person is alone there is no possibility to conduct any trainings.”* Furthermore, HR10 states that the biggest challenge for them is to enhance the importance of trainings for the employees. She states; *“Our trainings are often left to the last things on the priority list during the normal work days. We have so much going on at the organization currently and therefore often all the other things go ahead of the trainings. The work situation is the reason for this.”*

Also the eLearning observation showed the problem with two long lectures conducted during the work time; when the eLearning had to be paused due to real work tasks was the learning flow interrupted and part of the training had to be repeated. HR8 explains that the training should not be seen as a burden, which might be the case if the lack of time is enormous, and he would favor shorter training activities. *“The training should be topical and that it is not seen as a burden. It should be more ‘just-in-time’ ensembles”.* However, he also state that; *“To develop oneself and to gather new knowledge should be done as easy as possible, so that it won’t disturb everyday work. Then it becomes an added value, not an extra work task. And this is something we still need to work with.”* Therefore the attitude towards the training and the characteristics of the training need to be changed.

4.2 Games and Gamification in training activities

The interviews revealed that the companies seem to have very uneven and unclear pictures of what gamification or the use of game elements in training is. All the HR managers and training consultants were sent a short description of gamification before

the interview in order to open the definition. However, as the term is relatively new, and phenomena relatively unknown, was there still big differences in how they perceived the term and phenomena. Game Designer C describe that many companies are interested of the phenomena, but variation in what they perceive gamification to be, and what they want to have, is big. He states; *“Most of the people have already heard about gamification, it is something hot and they want to have it too; to gamify this and that. The image of it varies a lot. They want to have some kind of board game or a motivational element. Interactive sheets here and there. And there are lots of things that you can do.”*

Different games, both board games and card games, are used by organizations to a large extent. Physical board games are used to create and enhance organizational culture (HR1, HR6 and HR7) and increase communication (HR1, HR5, HR6 and HR7). HR4 highlights that the bi purpose of the trainings; the creation of group spirit, should not be forgotten although the focus is on competence acquiring. He states that *“It is also a strong wish from outside that when we bring these people together let them to exchange experiences during the learning process”*. Similarly, HR7 states that the training sessions are often the aligning tool for the organization, and some of the training tools are used even afterwards as spirit creation. HR7 explains that after a training that used a card game as a tool, the employees used the cards also after the training. *“ Now I have heard afterwards that these cards and questions from the training has been used at the restaurants in the coffee rooms, that they have asked the questions from each other and had good alights after. “ So that this tool really stayed alive among the employees.”* HR5 describes, that they decided to use a physical board game as a tool for change management training as it was something engaging and interesting; *“When we thought of how to conveniently and entertainingly make the busy bosses engaged and interested of a change management.”* The biggest benefit of the board game was the social context and the possibility for communication and knowledge sharing during the training game. HR5 says; *“We received good response; the managers saw it as inspiring and the biggest benefit was that 4 managers were sitting around one same table as a team, to walk about the change managements and the problems with it according to the drama curve that the game guided.”* Likewise, HR6 saw the communication and social interaction as one of the benefits of their board game together with the culture creation. *“Groups consisting of 4 to 6 people, from different areas, and we build and enhance the service oriented mindset and common spirit by the use of the board game. Have people from different work tasks, and to go*

through different kind of customer situations. To create and build a company culture. – Together we discuss what the best way to do things is.” HR7, HR4 and HR6 together with Game Designer C highlight the importance of the social part of the training; and the importance of getting to know each other and share knowledge.

HR3 describes that although they are relatively young organization, and training processes are still under development, are they using game elements to engage the employees. She states; *“Every now and then we have had game elements in product trainings, so that we give the participants remote controls that they use to answer question and quizzes in real time during the training. A lot of things like this. Another thing is that we have learned a new process through a role game. – Then we have some atmosphere boosts, or warm up exercises in the trainings. For example a small quiz in the beginning of the training. And when it is a quiz, we can at the same time slightly check the competence level of the employees, and when it is a game so there is obviously some rewards and therefore a good wake up. ELearning we have only just started, but there we have lots of quizzes as well.”* HR8, from an organization where gamification is already established and understood, uses different quizzes, work puzzles, cases, simulations, group works, small games and interactivity in their learning platform. HR7 uses expensively eLearning that is gamified by different videos, games, narratives, but they hadn't realized how much they even have used different kind of games. *“Now as I start to think, so actually we have used a lot different kind of games in the trainings.”* HR9 and HR10 describe that that they are not using any game elements in their training activities, but further on they realize that some of the elements as leaderboards, rewards and comparing success have been used regularly. *“In our own team meetings we have rankings, leaderboards and percentages of the amount of conducted trainings. To follow up is a good thing. And this made us to realize that now we really need to get these things done.”*

4.2.1 The importance of fun and enjoyment

All the consultants were of the opinion that fun should definitely be part of everyday work and also training activities at organizations. Nine of the eleven interviewed HR representatives agreed that fun should definitely be added to training activities at organizations.

”What you learn without a joy you will forget it without a sorrow.“ Consultant A

“It would be terrible if it wouldn't be fun at all.” Consultant B

“If the time at work is not fun at all, it is a very tedious situation.” HR3

”You just have to see in which situations it is acceptable to laugh and play.” Consultant A

”It is a very central part that people enjoy their time at work and they have fun. And no doubt it also affects to the results.” Game Designer B

”Absolutely fun can be used as a tool in employee training, and it should also be used!” Game Designer C

HR8 elaborates further explaining that *“Tranquility has not disappeared from work, but it has decreased. From the thousand and one tasks and things that are done during the day should at least 20 % be done in a more enjoyable way than before.”* Consultant A has even noted, that teams that enjoy their time at the training simulation are able to perform better than the ones taking the situation too seriously. He describes; *“I see in the simulations, that teams that have fun, the fun will increase the motivation to perform, and it will result in a more relaxed performance, and it is better than some other swots performance.”* Even HR11, from the healthcare company states that fun definitely is even part of the very substance focused work environment. *“Yes, absolutely it fits even to a very substance focused work environment.”* HR9 agrees that fun should definitely be part of the everyday work but is doubtful of the design of it. She states; *“Why not, as long as cultural differences and the fact that everyone are able to learn are taken into consideration and brought up.”* However, HR4 and HR5, the representatives from a more technical and traditional industry, do not see the new technology and more playful methods as something they should implement immediately, rather first together with, and according to, the major generation shift. HR5 states *“The representatives from younger generation know to expect, even require, things that are more fun in future. But in the business world, at least from our company’s perspective, there are representatives from older generations. But maybe the sleigh will change its directions with the shift of generations.”*

Although Consultant A agrees that even serious things can be done in fun way, is certain things just supposed to be taken more seriously. He states; *“But then if this is a severe thing, it needs to be taken seriously and it is important.”* However, the serious content can also be performed in a gamified way, having a focus rather in the hooking effect of gamification rather than fun. Consultant A describes; *“Fun and enjoyment should not guide the tasks. It should not be the goal or aim, rather the side path for how to do it.”* Likewise, HR8 and Game Designer B states that gamification and games are not necessarily same as fun. Game Designer B says that *“Mostly they are the same, but not always. The most of the games are entertainment production, the aim is that*

people enjoy and they have fun. But games can also be challenging, and affecting emotionally.” The sales simulation observation showed that the game environment was perceived as fun; people laughed and joked around. *“So how would you comment on this, Airedale Matti?”* However, the atmosphere became more serious towards evening, less laughter, but still the atmosphere was encouraging and the teams continued the tasks. HR6 states that fun atmosphere could even fit into lecture situations; *“Serious fun fits perfectly to work places. In every situation. It is way much more fun to be at the lectures even when the lecturer is pulling a joke. But then again, the trust and respect might be lost if the lecturer takes it too far and is just talking nonsense. But if it is aligned with the content, then it is really good. And it is clear that you if you enjoy your time at the lectures you are more likely to go there, and even get something out of it. And people leave the place with a smile on their face. So definitely it should work.”*

However, Game Designer A states that; *“Not all gamified elements need to cause enjoyment and pleasure to work efficiently.”* Therefore gamification does not always mean fun. HR8 also states that *“Gamification is not the same thing as fun. It is not the same as the fun gaming that happens on free time. It is rather a way to produce interesting content in an interesting and new way.”*

4.2.2 Games are a good tool

Game Designer B states that *“Gamification is a tool that helps one to exceed the thresholds”*. Further, all the consultants agreed that games and playfulness and gamified elements would definitely fit into training activities. However, they all also agree that the games, fun, and playfulness should be seen as a tool to support the learning. Consultant B explains it through own experience; *“No one has had anything against fun or gamification. But here in Finland we start from the content, the things what we will learn. Although I myself think that fun, and to learn things through fun ways, through stories, are extremely good learning methods, so still I personally would see the content first before attending training. I won’t attend just because it will be fun. The content needs to be interesting and you need to also learn something from it.”* Similarly HR3, HR9 and HR6 agree that games and fun should be used as a tool, not as core focus. HR3 states explains that *“The trainings should definitely be enjoyable, but I can not see why they would be described as something ‘fun’. Rather so that is a valuable or useful training, you will learn this, and it is done in a fun way. That it*

would be rather a tool.” HR9 says that; “Yes I totally believe that to learn through games is a very good way to learn. And there are many things that you can learn through them.” HR6 states; “The fun and excitement are maybe not the absolute value, rather the tool.” However, according to HR8 it is easier to bring up and introduce certain topics and contents with the use of game elements. “With gamification it is easier to bring up and teach harder and more complicated things and complex ensembles” HR8 further states that animations are a good example; an efficient method to make things more easily understood. HR7 even states that “We have enjoyed a lot the games as a learning method. Especially as we have very active people working with us, it fits to their personalities and being. So on many dimensions they are good! Also it is easy to take certain things into talk through it, things that you wouldn't discuss otherwise. Many good things with them!”

4.2.3 Games are a familiar environment

Consultant C states that games are a familiar environment for most of the individuals. She explains that there is similarities in games and business guidelines and both have a clear goal. “In business, the first rule is that you have to generate result. That's where all starts from. That you have a clear goal. Gamification is easily designed to be target-oriented; isn't it so that in each and every game there is a clear goal. A target to reach. And then there is smaller goals and milestones on the way. And this is familiar environment for all of us.” HR8 mentions that by gamification the training and learning activities at organizations can be brought closer by the everyday work. “We spoke previously about that the training activities should be brought more close by the everyday work. Actually, with gamification it is possible to bring the training activities closer to everyday work although the topic itself wouldn't be familiar. Then the content hits better.”

4.2.4 Games are a good learning environment

Simulation observation clearly pointed out that a game, or a playful environment is a safe place to learn, where mistakes are taken as a positive way to learn even more and where way to success can be found and seen already before a real life sales situation. Consultant A uses simulation as a training environment where the learned frameworks and as tools can be practiced in a safe manner. Also the employees are more likely to try out new things in a playful environment which was clear in the sales simulation

observation. The employees took unnatural roles, and one spoke and commented out loud more freely. However, in one situation the sales team misbehaved; the customer got upset of their behavior that had been caused of a communication mistake and planning behind the customers back. Therefore the sales representatives got to even practice a situation like this, which is unlikely to happen in real life, but that is still possible to take place. Also HR8 states that *“I am only guessing now, but if I think of the work we do, it is really hands – on. And therefore I feel that also the training needs to be like that.”* Also HR2 sees the benefit of games in the playful environment where the employer can relax and let loose. *“Games definitely support learning to big extent.”* HR1 states that although there are always employees that are against new methods, is the general attitude towards games and playfulness as a learning environment in their young male dominated organization positive. She states; *“There is always people that are against new things! But I totally believe that employees are more excited of this [games] than to come to the auditorium and passively listen. Or a lecture. That if they play a game, it is much better.”*

Consultant C states that in a gamified context the learner can more easily see the cause and effect in the training activities which will enhance the understanding of the phenomena. She states; *“If cause and effect things could be designed to the gamified environments, so that the learner can observe how the things happen and are affected.”* Furthermore, she sees the social context of games as a core benefit; *“On the other hand, students on different levels can in a group session be together, where the more advanced ones can guide the one behind.”* Therefore the co-workers could be motivated and encouraged to help each other more.

4.2.5 Games are a motivational tool

Consultant C describes playfulness to increase the motivation of the employees if the focus of the content is understood. *“Gamification can increase the motivation to make good results, but if the focus is not understood, and if there is no will to learn something new, then not.”* Similarly, HR3 approves that their employees have been very interested of games: *“They are excited [of games]. The games work really well as long as they are aligned with the content.”* HR7, from the food service industry, describes their employees to be very excited of their gamified training content, and state that they even conduct part of the trainings even on their free time. *“There can be even 100 employees doing the trainings on a Saturday, just for their own joy.”*

4.2.6 Challenges for games and gamification in training activities

4.2.6.1 How to know what kind of games or elements interests

Consultant C states that one big challenge is to know what kind of activities motivates and interests employees to learn new skills. She states; *“Who will be motivated through what?”* to be a core question. She points out that the learning methods and the attitude towards them has a role; *“Adults have also a certain attitude towards learning, how the learning has been done previously.”* Likewise HR6 points out the challenge of knowing what motivates whom. *“All the different user groups are different.”* However, HR2 and HR8 point out that the only way to know really what motivates employees is to pilot the activities. The risk is though that the effect is not as expected and might back fire. HR8 says *“You should always pilot things to see what really works, so that in the end you don’t measure totally wrong things. You get what you measure.”* Game Designer A states; *“The interest depends of whether the person, the personality, and the environment are fitting together.”* Therefore it depends whether a certain game or gamified environment meet the individual or not.

Game Designer B states that certain people are very competitive and they get excited of possibility to compare themselves with others. *“Big part of the people are competitive by nature, they want to compare own success and development with others success, if one is good or bad.”* Further he explains; *“Some people even study for exams to be able to say to the mates that ‘hähää, I did well’.”* However, he also agrees the obvious other side; *“But for sure there is as big part that are not interested at all of it [competition] and it won’t work at all.”* He further explains that; *“Some people are naturally collectors, people enjoy collecting things and badges for example works then really well.”* Game Designer B explains that although the Bartle’s gamer types are more broadly used in the Multiplayer game world is they useful when trying to understand the motivational factors for different individuals in an organization. *“The Killers are inspired by competition, power and ego boosts, Achievers are excited of achievements and targets and are competing rather against themselves than others. Socializers are inspired of cooperation and group tasks and of delivering information whereas Explorers are individuals that get inspired of systems, substance and the different worlds.”* Although the division of player types is not as clear in reality, is it a good tool to use together with other personality models according to Game Designer B. However, Game Designer C states that also the kind of work has an importance to what kind of

elements and methods to use. *“The ones that do not work with computers on daily bases might not get as excited of gamification. It might be hard for them”.*

Furthermore, Game Designer B also points out that sometimes the challenge might be that the contact customer is of different type than the user customer, and therefore the design and motivational elements that he or she is wishing is not uniform with the interests of the real users. *“The management group consists of certain kind of individuals. If this people get to decide what kind of gamified activities are designed, so it might be that those elements fit only to the top management which is only a small part of the all employees. A project should always contain people that the service is directed, and this way to learn what actually interest them.”*

4.2.6.2 *The design of the elements and the environment*

Consultant C sees that a great challenge is the design of the gamified environment. *“The most essential thing is that the aim is not to make a cool game, when the substance, the content, and the learning, will be left behind cool effects and techniques. The ICT should support the core actions, not the other way around. The benefit and the content should be in focus not the game itself.”* Similarly Game Designer A states that; *“The content is the most important element and the game is only a tool in the training.”* Consultant C claims that first the context and learning should be in focus and first after that the actual gamified content. *“To play a game is not the absolute value, rather what the play generates. The game and play should generate changes in behavior of the people.”* HR2 is also worried of the content and the gamified learning environment; the content can not be designed by anyone who do not understand it. *“One challenge is also that to some things there is no knowhow available externally, when it is of our products.”*

Game Designer C describes the experience to have a great role in the designing of the elements; *“We have a very stable experience within information and communication technology and understanding manager roles, so the own experience guides a lot. We design and do things from the base of our own experience. So basically we suggest some things that we think would be suitable for the customers, and often they agree with our suggestions.”* Likewise Game Designer A describes that; *“The broad experience within the field is guiding towards designing certain kind of elements. Certain kinds of people have a tendency to seek to an industry with similar people and therefore similar kind of elements and gamification might work there.”* Also Game

Designer B states that to understand the field and industry is very crucial when designing the elements, and to know which elements and techniques works with whom. He states that *“You should use the concepts that are familiar to the people. To take gamification to the world where people are used to perform.”* Therefore Game Designer B explains that he do not use any specific or previously designed elements or templates; everything should be designed according the specific customer. He explains; *“I can not think of using any ready templates or elements. Cheap consultants do this, ready patterns. I don’t think it is right; I think it should start from the customer needs and to understand them, and then build up the elements accordingly.”* Game Designer C on the other hand describes that they prefer the use of own, previously designed platforms and elements that are then adapted to the customers’ needs and preferences. *“The companies often have their own material that they are very much in love with, so we then just adapt it to our platform. The most clever way is that we change the customers own material to fit to our platform.”*

Although HR3 organization use quizzes as a waking method and interest creation at their trainings, she still points out that quizzes should be done wisely and carefully depending on the context and situation to actually work. *“Competitive quizzes are good when they are designed in a clever and careful way and depending on the content”*. HR4 is slightly doubtful for the games and fun to use in the training too extensive, but points out that the success and use of it would definitely depend on the learning situation. *“I can imagine that through the virtualization of our training methods, we could adopt in certain areas some of these aspects [games]. But again, it really depends of the learning situation. It always starts from the learning target, what is the target, adopt a new behaviour or just new facts. What is the purpose behind?”* HR5 from the same company points out that of the relatedness of gamification to the work context is crucial and defining factor for the success. *“How it is integrated to the overall training landscape.”* Moreover, HR9 points out that the challenge is to make an environment and content that is designed carefully. She states; *“It [Fun] fits in but it needs to be well done. Sometimes there is a risk that it will become too childish, like 1+ 1 style. So that it won’t turn out as designed to a child. The line is very fine when it becomes too childish.”* Similarly Game Designer B states the games should not be too easy as it will affect the motivation. He explains; *“If the game or the context is too easy, will the interest shift towards boredom in the flow, and that is demotivating.”* According HR9; *“Animations are on the edge to be too childish. The context is very important. And you have to make sure that you don’t under estimate*

the learners. If the tasks are too easy, the employees will just laugh. And also, this would be to not to value the employees. That we don't believe that you can do even this." The risk is that employee's feel that their competence and knowledge is underestimated, which will affect their motivation. She states that the employees are demanding regarding the context, as they are aware of their competences and goals. Game Designer B explains that *"If the content is too easy, will the motivation and interest fall underneath the optimal flow level, and will therefore become a demotivation."*

HR8 also mentions that the challenge is to know the target group; and to be able to design context accordingly. *"To understand and to be able to define the target group is a challenge. There is totally different types of people; those who require more information, those who learn by listening, those who learn by doing, and those who learn by reading. And all of them should be taken into consideration."* However, Game Designer A states *"You can not design games that would motivate and interest everyone."* As this is a fact, his advice is to try to find something that interest most of the target people, but to design it wisely as. *"A gamified environment that is not at all aligned with one's personality is definitely forbidding."* Game Designer B states *"You just have to accept that one can not please everyone, but if you can please even the majority of the people, that is already ok!"* Furthermore, Game Designer B has noticed that game designers that are very competitive themselves have a tendency to design elements that are alike themselves and their interests. He describes; *"I have also noted from the designers, that the ones that are very competitive, they are very keen on doing services with competition and comparison, that it is important to compete with others. Myself I am not excited of this kind of things at all. I rather develop things where the person rather develops as an individual and is rather competing against oneself."* Therefore the challenge for them is to understand the customer and design elements according to their wishes and style, and not follow their own preferences. As an example HR6 states that *"A board game in the online world would be hard to create, and to motivate. And also people wouldn't be as excited of it compared to a physical game where you get to play together, eat, and socialize at the same time."* He agrees however that this might be due to the human kind at their organization; *"Employees do not get motivated of doing things individually on a computer, they get excited of doing things together."*

Moreover, according to Consultant C a challenge is the expected flexibility of the tools. *“One good thing with gamification is the flexibility. Certain games are easy played whenever individual wants to do it. Currently you won’t get everyone under the same roof. So flexibility is needed absolutely! Today it is really hard to get everyone to the same place at the same time.”* Consultant C further states that; *“The time used to trainings is less than before.”* Consultant B explains this with the historical changes; *“The training activities changed dramatically after the recession in the 90s”* and explains that the length of the trainings were longer and they even included extra activities.

4.2.6.3 *The content design*

All the organizations state that the content for the training comes generally internally, as do most of the trainings. However, they all regularly also use external trainings, but even then the content is designed together with the external training provider to ensure the high quality of the content. HR3 mentions also the challenge in finding a balance between internally and externally produced materials. *“The budget is a challenge.”* Externally produced material is costly, and the required know-how might not be available from external service providers. Internally produced material is context focused and easier to create, but the challenge is to know the method. HR4 states; *“So you have two chances, you can involve people from outside that have good qualifications and good skills but like in any other case, if you want to get something outside and something good, you pay great money of it. Meaning, it can be quite expensive depending on the level of interactivity you want and fanciness.”* HR8 points out that it is nearly impossible for an external to know what will work and what will not be as successful as they are only found out by trying out different things. *“We have an own learning theories that we use. We have defined them, both in good and bad, through success and failure. We have learned what works.”* Furthermore, HR8 points out that the organization needs to be ready for a certain training method, and it can only be ensured if the content is created internally. *“The organizations can not be bought to be ready for online trainings. You can not buy the readiness for organizations externally; you have to do it yourself. And it is done by doing, there is no short cut to success.”* Therefore, Game Designer B states that every project starts with extensive research of the customer; *“Every customer project starts with the notion that is always starts from a need. And you always have to familiarize yourself with the company, what they want and try to understand who the customer really is.*

From there you will go and chat with the employees when designing elements for them to see what they might feel as important.” HR7 has been creating the content for their gamified eLearning environment and trainings for years, and states that *“We have experience of what works and what don’t.”* Also HR8 mentions the challenge to create informative and short training material and to know the main learning targets; *“How to design the content to be short and precise, but that covers up the need. In a training of 10 minutes there is not a lot to fit in. And how to identify the key learning targets, to ensure that at least they are covered and taken in.”* HR8 describes that the learning method should also be familiar for the employees in order to get good results. *“Also the style of learning need to be familiar, change is always hard.”*

4.2.6.4 Cultural issues

Consultant A mentions the importance of both organizational and national culture to affect the acceptance of fun and playfulness to organizational activities. *“I think it is clearly a cultural thing. To see where it is acceptable to play and have fun.”* Also HR8 states that not only the national cultures are an issue, also the organizational cultures might differ significantly. He states; *“The companies work in different ways, and within the company there might be significantly different cultures.”* Furthermore, HR10 describes that the perception of fun and what can be made more fun of, and what kind of fun can be made, is very different between cultures. She explains; *“In the latest code of conduct training cultural differences came very clear. For us Finns the code of conduct is a severe thing. But then we realized that the US people had made their own, totally different, code of conduct training. A similar example wouldn’t have worked in Finland. We could not use this to the EMEA code of conduct training, what would they have thought is Asia?”* HR8 states; *“The cultural differences are also very big, and important to take into consideration. Russia compared to the Northern countries. The cultural differences should be thought through to fit in to the focus group”* while HR9 and HR10 has noticed significant differences between Finnish and American cultures and their perception of fun. HR10 elaborated further stating that some employees might even get insulted. Her suggestion is; *“The cultural differences needs to be taken into consideration, always.”* However, HR8 states that; *“It is hard to learn these things if they are bought from outside, you should rather try out, think and explore. Also all the organizations work in different manners, and within the organization there might be different cultures.”*

4.2.6.5 Technology

Consultant C states the technology to be one of the challenges for training; *“We need flexible and adaptable structures that are easily changed and adapted to other things.”* HR1 describes from own experience that the solutions need to work even with different devices. *“We had an application that was made to support one of our training platforms, but then it just didn’t work with our Nokia phones. The purpose was to observe and analyze ideas on the go, and upload them through the application. So in the end we didn’t use it, we just wrote things down on a paper.”* Similarly HR8 also mentions the different technological solutions to be hard to combine, and therefore states that there is a need for gamified technological solutions that would fit together. He states; *“It is easy to buy services in cloud, but what about when you have 7 or 9 of them, how do you then combine them?”* Furthermore, HR4 describes that their entrepreneurial but very technical employees are sensitive for the content and the method of the training. *“- if we would launch something that is bad, or that is not well done, then it will be dead in a couple of weeks. Then it is very difficult to gain confidence and catch up with the trust”.*

HR7 states, long training contents are not suitable for their active and energetic employees, and are therefore favoring a gamified eLearning platform. *“If it is a long training, it is not the right way for our people to learn as they are kind of ‘busy-bums’. They go, have full speed in what they do, and then they turn around and ask what they were supposed to do. This [short trainings] fits to our industry, as there is no time.”* Likewise HR8 defines one of the possible challenges in gamified and technical environment to fit in with the employees; that not all workers are used with computers and might therefore feel resistant. *“One challenge was how to find time at the shop, and if there is even a computer available, to go and read some electric material. – There is people that are not used to use computers or smartphones during their work tasks.”*

Also Game Designer C describes that more traditional industries with older employees that do not use computers in their everyday work have a challenge with the latest technology, and therefore the gamified training activities. He describes; *“Persons that are above the average working age from more traditional industries like metal industry that do not use lots of technology in their everyday work, so it just faces the fact that they are not used to use this gadgets.”* Additionally, he states that the employees that are not used with the technology do not get inspired of the new tools.

He states that *“It is only that some people refuse to use tablets, because some people just do not know how they work or they are not used with them.”* Likewise, HR7 could see that some of their now physically played games could be brought to a virtual world, but doubts if it would still interest the employees. However, she states that *“It would be an outrageous work to build one, and that it even would simulate the real reality.”* Furthermore, she states that *“From my experience I have learned that the simpler game the better.”*

4.2.6.6 Employee privacy protection

One problem mentioned by Consultant A is that organizations might be hesitant to show data, reveal results, of the conducted trainings. He explains; *“Tests are very harsh numbers, and numbers are numbers, and if you won’t get points you won’t get points.”* Consultant A states that reason for lack of comparing and testing of own skills and knowledge could be part of professional pride or because of the privacy protection of the individuals. *“I think it might come through the professional pride; when one is in one profession you can not question or be doubtful of his/her professional knowledge and knowhow. Tests are harsh and numbers are numbers, and if you don’t get points you don’t get points.”* However, Consultant A is doubtful why this is the case as measurement, revealing results and comparing are part of schools. *“In school the numbers are shown and will stay with the parents.”* Also Game Designer B points out that; *“The whole school systems works this way”* and states that the comparison and revealing results is totally accepted there.

The organizations really rarely used any test to see if the content of the trainings are understood, or even to check if the implementation has been successful. Tests were used only in eLearning, where they seem to fit best. (HR2, HR3, HR6, and HR9) Only HR4, states that they use written and oral tests in trainings, to check the competence before the training, and after to see if they employees have learned something. He says; *“Written real test. You do it on the first day of the training. This is done for example in the training of branch managers; they go through a written test, 45min-1h touching all the aspects of the training.”* HR6 states that; *“Language trainings include a test.”* HR11 from the healthcare company describes that the testing, especially in the eLearning context, is very widely used and also accepted by the employees. *“People are very positive, as the test and testing is part of the bigger picture what you do. And when it is built in everything so it doesn’t come as a surprise. All the people*

understand that when you do something, it is totally normal that it is tested if you have understood. Never has anyone questioned it. So it is maybe built in in our culture.” HR5 don't think the testing of especially leadership skills and knowledge fit into the more advanced trainings. She states *“When you go higher, to leadership trainings, so there they [tests] do not really fit. It is rather that the competence is tested through practical things, developments projects. Or if it is about leadership or manager skills there are other types of measurement methods of the quality and competences.”* Therefore Consultant A states that rather the company culture and industry would be the defining elements of comparing and testing knowledge. He states *“Depending on the industry, if it fits to the industry culture.”* However, HR5 is planning to use some tests in future; *“I am planning to combine eLearning, where there is a test, to see if a person has internalized certain information, in first time managers training.”*

4.2.6.7 Previous experience of games and the use of technology

Age was not seen as the defining issue for the use of games or gamified elements at organizations, rather the experience of games and technology. HR8 comments strongly *“The age is not a challenge. It is rather a separation depending on human kind the previous experiences”*. Consultant C together with Consultant A remarks rather the previous experiences and habits to affect the interest and therefore success of games and game elements in training activities. Game Designer B explains that the younger generation is more used with the games and gamification. *“It is true that all generations play, but the young generation is more within the game culture, to play games is rather part of everyday life for them and a hobby that is done at least every now and then.”* Similarly Game Designer C states that *“The younger customers, the more excited are they to join along!”* Furthermore, HR5 states that the younger generation is more flexible towards different and new training methods. She says; *“The younger generations, the young and flexible people, have a different attitude towards these solutions, and it is maybe slightly more natural for them also.”* Moreover HR6, himself representing more the younger generation, noticed a need to change attitude when attending online learning environments. *“When I started around the eLearning environment, I realized that it is like a cultural change happening. That you have to go there, by yourself, and learn, and there is no one to tell you what to do, that you have to independently just conduct the trainings. Like kick yourself all the time. But then again, you can do it whenever you want.”* He further comments *“When we tool*

the online learning environment in practice, so it was clear that some people needed more help and support than others. And then again, for representatives from the younger generation, the online learning was easier. But it is always like that; some need more help than others.”

HR10 states that it is more about the attitude towards the technology than age. *“I know that older people might not be as good in using computers, but there are also young people that do not like to study online. That they prefer pen and paper.”* HR3 thinks that the issue with age might come across if the solutions contain new technology that is challenging for older generations. *“If the game contains a lot of new technology, so it might be more challenging for certain people from the older generations.”* Because they are not brought up and used with technology.” Game Designer C states that the young generation does not need as much assistance when the tools are introduced and explained. He explains; *“The youngsters do not need to be taught or guided to use these tools. To play games is in their blood, and it is very natural and easy for them.”* The fundamental think according HR3 is however the way how it is introduced and explained for the users. *“It always depends how you introduce it and bring it up to people”*. Furthermore, HR3 strongly states that *“If the game and gamified environment are designed according to the context, it should fit all employees no matter age. “*

Game Designer B states that the perception of what a game is can also affect the interest. He explains that *“Older generation has always played card games and done different sports. Therefore they might not see the current games as games.”* He is of the opinion that there is no need to further define or explain the used tools; *“It is not necessary to see them as games either!”* Game Designer C also points out that older generation is more used with traditional games, and therefore they might feel hesitant towards new kind of games as they are not used with them. He says; *“If we talk with older generations, we talk always about simulations. Or of a simulated training. With young people it is safe to talk about games. “*

4.2.6.8 *The perception of fun*

Consultant B mentions that how the people perceive fun might differ significantly between companies, the culture but also between individuals. She explains; *“It really depends on who you discuss it with. – It really depends of the people, the organizational culture, and the individual.”* Consultant A had experienced a training

case where the training was described as fun; *“We actually experienced a situation when we did a demo for the simulation, so in one place the letters for fun were slightly with too big. So we got some comments of that, that it can not be that fun. They commented even that ‘Only success and smiling is not enough, there should also be severe faces and tears.’”* Consultant B points out that the older generation might have a more serious attitude towards training in general, and they might be surprised that they are allowed to enjoy it. *“Older people have a different attitude towards work and training activities. It might come as a surprise for them that they do not need to have a crinkle on their forehead and be very serious.”*

HR8 states that certain things might be hard to gamify and make more fun. He states that; *“You have to be careful what to make more fun and where to use humor, as certain things are supposed to be more serious.”* HR6 points out that if the content is seen as too fun, might the seriousness’ and credibility of the training be lost. *“It is much more fun at the lectures if the lecturer is pulling a joke. But then again, the trust might be lost if the lecturer is taking it too far.”* Similarly HR11 states that; *“As the employees are proud of their competences and professional level of knowledge, I could imagine that might they feel that their time, or knowledge, is not appreciated if the content is too gamified.”* Furthermore, HR10 states that the content might also become too childish easily. *“Sometimes the worry is that it turns out too childish, like 1 + 1. So that it don’t appear as designed to kids. The edge is very narrow when it turns to childish. You have to make sure you don’t underestimate the employees.”*

Moreover, HR4 states that the gamification, the engagement and motivation of employees, would work if the words “games” and “fun” would be left out. He states; *“I think what can make it success is to not call it game or fun. I would take a more submarine approach there, Trojan horse approach. To tell that that’s just a training method that we are using, don’t worry if it’s a game or not, this is what we are using. So that people do not think that it is just a game or it is just something we are playing there, just playing games. This can have a negative connotation, and perception. If you just use the method without naming it, people will easily buy into it.”* Similarly HR8 points out that the way how things are communicated have a great importance to how things are accepted. *“Also the activation of the people should have some benefits. And to combine it to the big picture. And how the message is communicated has a big importance.”*

4.2.6.9 Resistance for change

Game Designer C mentions the resistance towards new, the fear to let go of the past tools and methods, to be one of the challenges for new training tools. *“They stick out with nails and teeth to the old methods.”* HR8 mentions that the resistance for change in the used methods at trainings could be a problem. He describes from experience; *“When we three years ago changed it [the training] to electrical form, the change was relatively big. And first people longed after the books. – They were used to take the training books home. – But this has disappeared, people has gotten used.”* However, he states that the organizations should be constantly up for change; *“The ability to change should be there. Change is a constant state.”* Game Designer B thinks that the engagement towards an activity can be increased if it can be played or used whenever, contrary to attend a learning session only when allowed. He states; *“I think it is stupid if you can not play the game when you want. That you would need to wait for some power to become better or your lives will increase. I think you should be able to play the game when you want, and then even the engagement will increase.”*

4.2.6.10 Expenses versus time

HR4 sees the expenses of games and gamified elements as one potential challenge. He states; *“It is always a question of money, the costs. Serious games are really expensive. Good simulations are really expensive. Then it is the matter of using, the usage, and economies of scale. Of course you can have standardized, but when you want to have something tailored, it can become very costly.”* Similarly also Game Designer B points out that the expenses of well-designed gamified content might be a challenge for the future, as the organizations do not seem to understand the overall time that is needed for the project, and how much it all costs. *“To get to know a customer company takes time. And this is probably where the expenses come from.”*

4.3 Perceptions of the future of games and gamification in training

All the game designers are very optimistic for the possibilities of games and gamification for the future. Game Designer B states that in *“In theory everything can be gamified but in practice the limits are drawn to ethical and moral issues.”* Game Designer A sees the great potential in gamifying learning, but even more within the marketing activities. Furthermore, he states that gamification in a learning context fits better when the learning is relying on voluntary activities. He says *“You can definitely*

gamify training activities, it fits well in there. But it fits better to environments that are built on voluntary activities, so not so well in school environments.” Game Designer C states that; *“There is a difference between gamified the individual and gamified group trainings, but gamification fits to both of them. “* He further states *“Only the own imagination is the limit.”* However, both Game Designer A and Game Designer B are worried of the use of gamification. Game Designer A is worried that it is used to extensively; *“Gamification might backfire”*. Game Designer B mentions the problem to be that everyone wants to do it but the knowledge of the appropriate methods and designs are still lacking. He states that; *“There is a clear need for ground research and analysis of the situations rather than just putting random point counters somewhere.”* However, he is of the opinion that gamification is not only now a hyped phenomenon. He says; *“It will also remain as it will be partly invisible, it will become part of the everyday life of individuals and it is not anymore seen as gamified activities.”* He even points out that as the phenomena has been used broadly for a long time, for example in the school systems having grades and levels and classes. *“We have had this kind of things already before, where you collect points. The whole school system works this way!”* Game Designer B further points out that it is unfortunate that the definition of gamification and serious games today is blurred under one umbrella term; *“I think this is very unfortunate, as they are not the same. Serious games are more game like thinks.”*

HR8 states that in future they definitely focus on gamification and to increase the motivation of employees towards the training activities. *“We think how the basic learning can be brought more close by gamified activities, and this way increases the motivation.”* Besides gamification, he states that social learning and competitive learning are definitely concepts of future training activities. He states that; *“Currently the eLearning is only one-way, we need more dialogue. Maybe we will find that more in the future. To learn is a dialogue.”* The eLearning observation showed the same; the learning situation turned passive without any possibility for further interaction or involvement. HR1 pointed out that they should increase the amount of new and more interest awaking training methods as the company is expecting new young employees in the future. She says; *“There should all the time be something more, all the time have some new things as young generation enter the work place. They just simply don’t get excited of PowerPoint.”* Similarly, HR8 states that *“Gamification means definitely future for us as when the new generation comes to work, the change is big. The chock for them is for sure massive; the current learning style is so different. The young*

people want to have the new information now instead of a three day long proactive training conference.” However, HR6 states that from his own experience, the learning that is done more individually requires a change in the attitudes and culture of the training. He describes; *“When I myself started around the eLearning theme, I noticed that it is kind of a cultural change. That you actually have to go there yourself, and learn, no one is there to tell you when you have to do it, and you have to do it independently. Kind of to kick your own ass to make things happen. But then again, you are allowed to do it when ever. “*

HR8 states that; *“The trainings should be more just-in-time style.”* He explains that the young generation wants to have training available when needed. Moreover, Consultant B claims that younger employees are more familiar with high pace, and might see extensive, long training as hard to focus on. She explains; *“When it comes to younger people, the fun, and to go quickly through and forwards with things, is rather an expectation. Rather they would get chocked if you would need to out your mind into one thing for longer time. “*Likewise, HR8 hopes that there are no separate learning platforms or systems rather that they are closely integrated to the everyday tasks and they are provided on demand basis. He states; *“In 5 years I hope there is no separate learning platform. I hope we would come more towards a need based training that is able to be delivered to the learners when needed. You have to make things effortless.”* Consultant C sees games and gamified environments as a solution; *“Games guide you to focus on one thing at a time. With the help of it you can focus.”* Similarly HR7 states that the gamified environment should not be too complicated, often the more simple design the better and she explains that repetition and the use of pictures rather than words have worked well in their food service employees. She states; *“I have noticed that the more simple things, the better. So that a simple message would come through in a simple way, pedagogically multiple times and in different situations. A picture tells so much more. It tells everything, at least in our industry, they are worth gold.”*

4.3.1 Where gamification and game elements could fit

Consultant C points out that gamification is rather a mindset and point of view and therefore the gamified things do not always require technological solutions. *“Games create a very tough challenge for the technology. There is a need for loose structures that can be combined and changed. But then again, gamified activities do not necessary always need lots of technology. It is rather a mindset, a style of being and*

starting point.” For that reason she thinks that game elements can be designed to support the engagement and motivation in nearly anything.

Furthermore, Consultant C states that by gamification, different levels could be logically designed to the learning components, which would ensure a more personalized learning experience. *“The use of levels, and different learning states should be easy, how can it be so hard to design? As an example, the language studies. How can it be so hard?”* However, she mentions the dismiss of the social learning in this case; if the more advanced learners are in same groups with others, can they support the learning of others. She describes; *“On the other hand, student on different levels could be together in a group situation, where the not so smart learners can learn from the more advanced ones and the more advanced ones can help.”* Likewise, HR2 mentions if the employees are expected to define their own learning level, would it also be a way to awake the employees’ interest towards the training. She explains; *“Could analysis of own behavior be a method to wake the employees, for them to see if they are early learners or late adopters by explaining the characteristics of them.”* She explains that this way the training content would be adapted to the individuals own needs but also possibly enable the individual to choose the training method that is best suitable for him or her.

Consultant C states that the benefits of gamification would be best used in orientation activities in form of eLearning. *“For orientation activities it would suit most perfectly. Then people are as most open and their will and interest to learn is enormous.”* Additionally, she states that scale advantages would influence the expenses of the trainings. However, she further states that in orientation, also the personalized training possibilities would be a great advantage if possible. *“With gamification you could maybe do trainings that are more personal and more close to the real learning level of the individual. And each learner could choose their own starting level.”* Likewise, HR2 supports the great potential of eLearning to be used for employee orientation, but she is not specifying the role of gamification in it. She says; *“The scalability of eLearning is enormous. It is an overwhelming method. And then when you even add possibility for control to it. It is totally different way to manage the learning.”* HR5 further points out that the engagement and motivations of employees are harder to influence in eLearning. *“It [eLearning] is not participatory, which is the core thing in my opinion, and eLearning is relatively easy to skip if there is no rewards, punishment or encouragement as a good combination.”* Likewise, Consultant A thinks that *“Gamified*

elements are more suitable for pre assignments and eLearning. There the learning is more an individual activity, by him/her, to motivate you. On your own time, your own learning path. “Consultant A points also out that if the learning environment is anonymous, is even the likeliness for comparison even bigger. *“There the community spirit appears. For example in Facebook you can anonymously follow up others performances, it is hooking.”* In the eLearning observation anonymous comparing to coworkers would have been suitable and efficient motivational element, but wouldn’t have made a difference without a reason; a competition, or another incentive, to compare own results with the results of co-workers. However, Game Designer B points out that the scalability of gamified environments is very weak, as everyone is different and get excited of different kind of activities. *“Everyone does not get motivated of everything.”*

4.3.2 Perceptions of the use of game elements

4.3.2.1 Competition and Points

Consultant C is very positive towards competition as an element in trainings. She even suggests it to be combined with scorecards to get it linked to the company goal and overall result. She states; *“In a work that is performance focused competition would work!”* However, Consultant C mentions that; *“Quantitative things, the result, and similar things are more easily gamified than qualitative things.”* Consultant A on the other hand uses a lot of competitions and small quizzes in his sales trainings’, but very rarely uses any extrinsically motivational rewards. Similarly HR1 and HR3, and the sales simulation observation support the notion of competition to fit into the training field, especially within sales representatives. However, Consultant A has noticed that the competition awakes different feelings among the employees. He describes; *“Simulation, that is very competitive, might awake nervousness among some players. You can see that some people are quiet in the class rooms as they are bored, but some are quiet in the simulation as they are so nervous. “However, he is opinion is that; “Competition inspires to learn.”* Game Designer C further points out as an example from his own experience with customers that; *“Young males have a very strong urge for competitions.”*

HR8 describes that the points have been used in social competitions, comparing different groups or divisions, and the effect has been very positive. He states that; *“It*

can definitely boost up the thing! I think it also creates we spirit!" Also Consultant A states that competitions are always conducted as a group and therefore there is no individual pressure. He states; *"Competition that is done in teams and as a group activity motivates clearly."* However, HR8 also states that this comparison is only used as a tool to show the conducted trainings, and should then be integrated and brought into the commercial measures. He says, *"And this can be brought to the commercial measures of the business. So it would therefore be part of the big picture."* Additionally, according to HR8, when the amount of training is brought into the results, should this work as a motivator for the different divisions and teams to provide more training. *"I think it brings communal feeling. The idea is not the social pressure, rather to get some measurements that certain divisions provide knowledge development."* Game Designer C describes the use of points is more efficient when the training is individual. *"When playing individually, then the gathering of points is more effective. How little you do wrong choices etc. When you don't have anything to compare in others."* Additionally, Consultant A points out that as the idea in most of the trainings is also to share knowledge and increase communication. He states that; *"In the training groups there are lots of potential, it just has to be realized in one way or another."*

Game Designer C describes points to represent different values as life's, as euros, as normal points. *"There is different kind of points. Points of the speed, points of right answers, euros, lives. It just depends how you express it."* HR6 describes that they have used points to compare the different countries success, and they have received positive feedback of it. He says; *"We had a leaderboard with points in the internet to show which countries had gained nest results. Some competition but not too much. And people liked it a lot!"* Likewise, HR8 has perceived positive results with competitive eLearning environment between different divisions. However, HR3 states that the competitive training should be rather fun and harmless. She states that; *"I wouldn't maybe do it so that I would show the results from an eLearning quiz for everyone, rather as a short quiz that is just fun and harmless."* Likewise, HR6 also points out that if the training is supposed to be more fun, might the fun be lost if the points are collected too seriously having the winning as the main target. *"The training is supposed to be fun, but if it develops to only collect points, it is not fun at all. And then it doesn't work. But if it can be fun and you can together buzz, then it is more aligned with the aim [of learning]."*

Contrary, Consultant B is more hesitant towards competition in learning environments. She says; *“I haven’t really tried it. And probably won’t try either.”* Likewise, HR2 is uncertain towards the use of competitions, as the employees work with serious issues and their performance is measured constantly. She says; *“We have lots of measurements all the time. And they are severe things. And we follow them constantly. I don’t think the competition would be the thing how to make the employees excited. Because we are on a business industry where everything is measured constantly, and a lot. So it won’t just work. Or, hard to say. It could be that they would. Hard to say.”* Also Game Designer A would not use competition or comparing of results in a learning context. *“Competition might work demotivating for many, and therefore it fits only to a certain kind of people.”* HR8 is positive towards competition and comparing in training activities, but has also heard differing opinions. *“I think it definitely fits in, but I have heard some differing opinions as well. In pilots I have used a lot of them for example.”* HR6 wouldn’t use competition in comparing knowledge acquiring. He explains that; *“It might easily just turn into collecting points and the actual training might be missed. It is not the aim of it.”* However, he agrees that the competition might inspire and encourage people in the training situation; *“It can be easier to sell the idea to the people, that now we go and show to the others and we do this together and we will win and we will be the best.”* Game Designer C states generally that to compare results do not generally fit in with learning, but states that to certain organizations, as military for example, the comparison and competition is part of the culture and therefore perfectly also part of the training activities. *“To compare learning results and make it competitive do not normally work well, but on the other hand in the military forces to compare the learning is part of the organizational culture, to see which ones get to the next year and which ones drop out. That you have to rank people. Here the comparison and competition fits really well. But at organizations this do not work the same way, and I wouldn’t compare learning.”* Game Designer A states that competition is a *“double edged sword”*; for some individuals it works and for some it is a negative and forbidding element. HR8 concludes that the way how competition is designed matters. He states; *“I feel that it fits well, but you just have to think of how to do it. Competition should not go ahead the learning!”*

4.3.2.2 Leader boards and Badges

HR9 states that the results of the trainings are shown in the final results and other organizational activities, and therefore she can't see that comparing training activities would be of value. *"They [results] rather come through the success, it isn't the thing what you have learned, it is the results. It is not about who will study the most, it is rather about how we learn to do this things even better, and the result of those actions."* However, HR10 suggests that the success of certain winning teams could be compared, and shown in leaderboards but is still doubtful of it. She states that; *"I have thought, that to eLearning you could easily add this kind of elements, that we could show on our first page the star students. And I know this is often done at organizations. However, it is only that I can not really see that we would lift up individuals and what trainings they have done."*

Game Designer B states that as badges are great motivational factors for certain kind of individuals and the possibility to compare the collection in leaderboards, it works as a motivator to collect even more of them. He says that; *"People are naturally collectors."* On the other hand, organization for HR9 and HR10 has noticed the leaderboards to work well as a tool for follow-up of activities, and to signal what things are of value. HR9 describes that *"To follow-up is a good thing. And of this you got the feeling that these things need to get done and completed."* HR2 can not see a problem in comparing the individual learnings, as long as it is communicated in a right way and having the focus on the advantages of individual training possibilities and if the learning is even shared. She says that; *"People also normally compare one to each other. And it is only a good thing that they all get individual training. Only if the comparison is introduced to the people in a right way it is a good thing."* HR8 remarks that the megatrends of today; *"The megatrends can not be totally wrong regarding networking and socialising and competitions and chat forums; if you just do something you get out of it a lot. For example the amount of comments. You collect the glory. This same should be brought to the world of training. And this way the amount of learning can be increased, and spread around."*

4.3.2.3 Rewards

Game Designer B sees rewards as a great motivational tool for employees, even small rewards motivate. He states that; *"To give rewards is a very good element, it is always that people are looking for a reward. Even small rewards increase the happiness of*

one.” Game Designer C describes that the rewards can be based on points, or ideas, or even winning over the other players on your side. Additionally, to get trust and respect from other players might work as a reward. *“People smile very widely when their ideas are chosen, especially if they even result in a change and improvement. That own investment to the activities matters.”* However, although playfulness and games are generally seen as not serious activity, HR2 states that in her organization; *“If adding extensive rewards to the training content will it turns towards a serious thing.”*

HR1 realized the importance to have physical rewards as a prize for the winner of a competitive culture enhancing game at their young male organization; *“We thought that if it is a game, obviously there is a need for rewards to the team that wins.”* HR8 describes, that some of their final rounds at a training competition has been conducted overseas, and the trip works therefore as an extensive rewards. *“We had semifinals and finals. Last year the winners travelled to China, so it [the competition] includes real rewards in this sense.”* HR9 and HR10 mentions that a physical reward, a mug, after a conducted training activity worked as a motivator for the employees that hadn’t still participated in the training. *“In some situations it has appeared as a ‘ah you don’t have that mug yet.’”* Therefore, the mug works as a comparison and as a “badge”, a show-of object for the others.

Game Designer A describes one occasion, where employees were able to get shares of a virtual mill that they were supposed to build as a training activity. *“When the virtual mill was ready, the employees got a ‘virtual ownership’ of the mill, and therefore all the upcoming activities and actions affected to Their mill. This affected their motivation, as they wanted to guard their own virtual mill.”* Similarly HR10 describes; *“We have tried to communicate the tailor-made trainings to work as well as a reward for the employees. It is not like that the tailor-made trainings are free of charge for us, they have required lots of work that we have got everything done. And that we move people from one country to another.”* Likewise HR7 state that the employees appreciate the well-designed training environments so intensively that it nearly works as a reward. She describes; *“I want that the managers’ trainings are so that we are over the night somewhere, they get to eat and dine well, and when there is a possibility I want to take them to an excursion to special places. And people are often very excited of these trainings.”*

Consultant B has not used external rewards for motivation. She states; *“I rather try to trick the employees to conduct something that is perceived as hard through a problem*

solving or case. Use fun things to learn a more boring topic". Similarly, Game Designer B is more interested in engagement design that supports more the intrinsic motivation and the importance of the content and context for the individual. He states that; *"I am more interested in the engagement design, that comes from the intrinsic motivation, that the individual likes the game so much that he/she comes again, and again, and again, and doesn't want to even leave the game. - Intrinsic motivation is always so much better than extrinsic motivation."*

4.4 Summary of the findings

The employees interest towards the training activities seem to depend on multiple factors at organizations, but also of their individual perceptions. The interest towards training is strongly linked to the business need, and the interesting content that is related to the everyday work of the individuals. The importance of the content was enhanced strongly. Besides, the training need to be personalized and the individual needs to understand it through his/her own work tasks to perceive the value of it. Additionally, how practical and useful the training is for the individual has great importance. Furthermore, the findings show that the training activities need to be aligned with the business goals and missions for the employees to understand the reasoning and value of the training which is the fundamental motivator. Additionally, the social environment and opportunity to gather tacit knowledge during the training activities are seen as a motivator, but also as support to conduct the activities.

Moreover, it was clear that the individuals have different interest areas and needs for training, and therefore a challenge is to find topics or actions that interest most of the employees. However, as the Game Designed A and B state the obvious; everyone can not be pleased when designing broad organization wide trainings. However, the organizations those have a specific industry knowhow and strong substance knowledge, seem to value and expect the training content to be of extremely high quality and of value before they get inspired of it. Additionally, the more traditional industries with long term employees seem to share the passion for the company success, which in turn motivates them for competence gathering. Therefore those employees seem to be more judgmental regarding the tools and methods for the trainings, and their use of time.

Another challenge is the new human kind struggling with concentration and task focus. The eLearning observation clearly pointed out that compared with the active online environment young generation is used; a slow paced virtual PowerPoint could not

retain the interest of the learner. Furthermore, the natural inefficiency and laziness of individuals form certain challenges for the training activities together with the hectic work times. Below Figure 6 summarize the findings related to the motivation of employees towards the training activities. The boxes around indicate the major challenges that organizations are currently facing with their trainings.



Figure 6 Summary of the findings related to the motivation towards training activities

Furthermore, the findings reveal that the interview objects see the possibilities of gamification in designing more personal trainings, but at the same time they see that gamified elements could increase the motivation and interest of eLearning activities which the observations pointed out. The HR representatives seemed to perceive the usefulness of games mostly in the social context and possibility for extensive communication and tacit knowledge sharing that besides the competence acquiring affects the creation of group spirit and aligns the organizational culture. Nine of the eleven interviewed HR representatives agreed that fun definitely belongs to the everyday work and training activities. The two representatives that had a more hesitant attitude pointed out that the fun should not be the priority, but could possibly work in training context if designed carefully. Their doubts might have been influenced by the industry and kind of employees; they described the employees to be very entrepreneurial industry and substance knowledge focused individuals. All the interviews clearly point out though that the fun should not be the aim rather is used as

a tool for the learning. Furthermore, it was clear that games and gamification is not necessarily same as fun, rather an activity that awakes emotions. Additionally, as the findings show, seriousness is part of certain work tasks and therefore fun and laughter should not be emphasized, rather used as a tool.

The findings indicate that games were seen as a good tool for the training activities due to the safe learning environment and the familiar setting. Additionally, at least in organizations with active and busy employees the games themselves seem to be a motivational tool. Consultant C describes the efficiency of games as a learning tool at organizational setting to come from the similarities; the goal, the smaller milestones, and the natural task focus. Additionally, the findings indicate that the learning environments in games form a safe ground where the learners can practice new skills in a safe manner, and see the consequences of their actions. The simulation and HR8 pointed out the relatedness of the games with the everyday work; the games can work as glue between the training activities and work tasks. However, this point of view was also confronted by HR11 stating that the games and gamified elements might even widen the gap between the training and everyday life if not designed purposefully.

However, the challenges with games and gamified environments are in line with motivational challenges; the challenge to know the customer and the learner both regarding their motivational and interest areas but also regarding the cultural background, individual competence levels, individual needs for training, and the amount of previous knowledge and experiences with games as well as their perception of fun. Therefore the challenge is formed from the needed knowhow of the customers and the end users of the game and to be able to design the content and the context accordingly. Furthermore, the eLearning observation together with HR9 and Game Designer B comments clearly indicate that if the environment and training are designed too loose or too easy will the motivation decrease. Likewise, in the simulation observation some of the teams seemed demotivated as they did not perceive the content challenging and important. Therefore the overall challenge is the open communication and analytical skills to read the need for and the overall environment regarding the suitable design of a gamified training setting. Also the contents of the training activities form a challenge; the knowhow of the content is rarely found outside the organizations but the organizations do not have the knowhow to design interesting and efficient learning platforms. According to the findings, the need to outsource the design causes

further monetary issues as the organizations rarely understand how much time is required for a good design to be created.

Additionally, the previous experiences with games and different technological tools form one of the challenges that games and gamification is facing together with resistance to change. Although the age was not generally seen as an issue, Game Designer B and Game Designer C explain that young generation is more used with the game culture and do not perceive it as threatening or as a new environment, while HR5 points out that younger generations are more flexible regarding the different training methods and tools. Also, findings point out that although there should not be a difference between the generations regarding the acceptance of new training elements, are the younger generations more easily adapted to new technological environments.

The findings points out that communication forms one challenge for the use of games and gamification in training context. HR3 points out that fundamental factor are how the activities and methods are communicated to the employees. The findings lift up that the fun and games should not be the main purpose, and therefore they should not be emphasized. Consultant A even had experience of too much emphasized enjoyment of training activities that resulted in negative judgments. The context of fun and games might be taken differently between cultures, but also generations, and therefore cause challenges. In the simulation observation the expectations for the simulation games were not met and therefore the players seemed disappointed as the game was not as challenging, tough and exhausting as they had expected. Moreover, Game Designer C states that with older generation, they use rather the word simulation, than game, when describing their learning platform due to the negative and unserious connotation the older generation has of the word games. Below Figure 7 shows a summary of the major challenges that the gamifying of training activities are facing.



Figure 7 Summary of the challenges for gamification in training activities

The findings indicate that the general perception of the future of gamification and game elements in trainings is very positive. However, according to the Game Designers the challenge is to use the gamification accordingly, and not only randomly add elements without considerations. However, as HR6 pointed out, should the current training culture change if wanting to find new, and more interest awaking training tools. Consultant A points out that the individual learning results, especially in pre-assignments, could be compared with the results of coworkers. However, the simulation observation together with multiple interviews indicates that the comparison and competition are more efficient when less personal, and therefore less sensitive also for the employee privacy policy. However, Consultant A states that the comparison of the results and the motivational effect of it could be bigger if the learning environment is anonymous. The eLearning observation would have had room for anonymous comparisons of results, but the result of it as an initial motivational factor is doubtful, where as it could possibly work as supportive group pressure to conduct all the trainings.

The findings show that the competition, points, and leaderboards have both supporters and adversaries, but the general attitude was that their success depends on the context, the way elements are designed, and what kind of employees take part of the activities. Mostly the benefits were gained when the context was formed as a group activity, where teams collected points together, and competed against other countries, divisions or teams. This way the group spirit, and company culture was emphasized. However,

according to Consultant A, competition affects the knowledge sharing among the individuals negatively. Contradictory the social competition had caused positive results at HR8 organization. Furthermore, as the competition and gathering of points should be fun, might the individuals take it too seriously. Moreover, the findings show that leaderboards have perceived positive feedback when designed to follow up phases and when comparing the results of different countries.

Rewards on the other hand were seen as a positive motivator, and therefore used both through tangible and intangible rewards. Even the tailor made and extensive trainings are communicated as rewards for the organizations. Furthermore, respect from co-workers or the notion of an own idea to get support from others are also seen as powerful motivational element. However, the Game Designers strongly point out that every individual is different, and therefore to be able to design game elements that are appealing for the majority of the learners is unlikely to be successful in strongly scalable training activities.

5 DISCUSSION

This section will discuss the findings together with the theories taken up by the literature review. The chapter will introduce insights that the empirical data together with theoretical implications suggest as an answer for how the employee engagement, motivation and interest for training activities could be influenced and increased by the use of gamification. Furthermore, the motivational factors that should be taken into consideration when planning a gamified environment, and the future possibilities and challenges for gamification in training activities will be discussed.

5.1 Conclusions of the findings and theoretical implications

Engagement and motivation are crucial factors for learning to take place, but even more for the absorption of the content (Aziz and Ahmad 2011; Balance 2013). Engagement is formed by the meaningfulness, safety and availability of a certain action, and the engagement towards an activity is further affected by the individuals' motivation, interest creation and flow experience that he or she is experiencing with the activity in question (Eccles and Wigfield 2002; Kahn 1990). The literature review points out that the greatest potential in gamification is seen in the motivation and the increase in the engagement among the employees (Kapp 2012; Simões et al. 2013). Moreover, the benefits are seen in the social interaction and increased communication and in emphasizing the creation of aligned organizational culture (Mainemalis and Ronson 2006; Sandelans 2010). However, the benefits of gamification in emphasizing the remembering (Simões et al. 2013), increase in understanding the cause and effect (Mehta and Kass 2012), or attitude towards a certain tool or system (Dominiquez et al. 2013) are not lifted up by the empirical data. It could be argued that as most of the organizations are not familiar with the tools and they don't have practical experience, are they not able to see the more practical benefits with gamification. Therefore the implications of this thesis are rather perceptions of gamification for the future use. Below the questions the thesis is trying to find and answer for together with implications from the findings and literature review is discussed.

How the employee engagement, motivation, and interest for training activities can be influenced and increased by the use of gamification?

The findings are aligned with the cornerstones of engagement. The employees need to find the training meaningful and of value for individual work tasks as well as see the

business related targets. Moreover, the quality of the training should be of value together with interesting and work related content. Furthermore, the findings lift up that the individuals' contribution to the company results, and even the training activities, will affect the meaningfulness of it and therefore result in increased engagement. Therefore, the interesting and valuable content together with a possibility to influence the trainings are crucial for the engagement creation. Moreover, as Schaufeli et al. (2004) describes the engagement to be characterized with excitement and dedication, are games fun and familiar nature supporting the engagement creation.

However, the other cornerstone, the feeling of safety, is influenced by the safe environment and the individuals trust towards the actions that will not harm ones self-esteem (Kahn 1990). The findings together with the game-based learning theories (Kolb and Kolb 2010) indicate that the games are often perceived as a safe learning environment where mistakes and success are both allowed. Furthermore, the findings showed that the social learning environment work as a support for the individuals by pushing the weaker ones forward, but even more as an aligning environment where the group spirit and company culture can be created. However, the findings indicate that in an individual learning environment the safety might be affected if the platform is designed too competitive or to emphasize wrong game elements. Furthermore, although the findings showed support for the training results to be linked more strongly to the results and even scorecards, might this harm the individuals' feeling of safety, and therefore work contradictory for the engagement although the outcomes of training would be clearer. Therefore it can be concluded that although the game learning environment has its positive elements, is the design of the context crucial to prevent the feeling of safety to be harmed.

Moreover, the third cornerstone, the availability, is affected by both mental and physical hinders (Kahn, 1990). As the findings showed, is the time used for trainings limited. Therefore, trainings that would be even more integrated to the everyday work tasks would be easier to manage, and therefore enhance the employer availability that affects the engagement. Additionally, the feeling of security with their work tasks, themselves and within the organization has an impact on the feeling of availability (Kahn 1990). Findings indicated that the new generation is more used with game like environments, might they feel insecure if facing an unfamiliar and very different training platform. Therefore, as also the findings pointed out, might the shift towards a more gamified learning environment be a matter of time and generations change.

However, the majority of the current workforce is still not as used with the latest technology and online games, and therefore the use of gamified applications might harm their feeling of safety and affect their engagement.

Ryan and Deci (2000) state that people are even more often externally motivated although the effects of internal motivation are stronger. Therefore, both intrinsic and extrinsic motivational factors are needed to support learning (Ryan and Deci, 2000b). More specifically, Hidi and Harackiewicz (2000) argue that the externally triggered motivators that affect the situational interest should be paid more attention to. The findings point together with Kapp (2012) that the gamified elements can serve as external motivators, but they can only trigger the intrinsic motivation and interest and therefore influence the behavior of individual. Therefore it could be stated that although the use of points or competition in a sales simulation do not increase the likeliness for actions intrinsically, is their extrinsic appearance guiding the action and possibly triggering the individuals intrinsic motivation towards conducting successful sales deals after the simulation training. Furthermore, as the individual can affect the own interest, a task with perceived additional value for the individual can increase the initial interest towards the activity, and therefore the learning is likely to increase through self-regulation (Hidi 2001). Therefore, learning environments that are perceived useful and of value both content wise but also for the learning platform, will most likely receive positive attention and increased usage.

Individuals need previous knowledge or experience of the topic for the interest to be awoken in the first state (Hidi and Renninger 2006). As the games have been played since forever, can it be argued that people are familiar with different kind of game elements and therefore they have previous experience from them, which affects their attitude towards the gamified activities. Therefore the interest towards the games as a learning environment has its origin in individual interest and strengthened from the situational interest, contrary to the theory that states that the situational interest will awake before individual interest (Hidi and Renninger, 2006). Furthermore, as the individual interest for games already exists, is the situational interest only needed to be awakened. Moreover, as the findings indicate that the games are seen as a familiar environment for the individuals, it can be stated that the employee interest creation is easier as the individual only needs to find linkages between the content and the engagement and interest areas. This understanding will increase the value realisation of the activity (Hidi and Renninger, 2006) which in turn affects the meaningfulness of the

activity that further enhances the engagement creation and even influences the intrinsic motivation. Especially industries with expert knowledge and strong knowhow within industry specific issues, the employees are very demanding regarding the content. Therefore, to allow the situational interest to awake and further develop to individual interest that will retain the overall interest towards the topic, should the gamified learning environment be communicated and introduced to the employees having a focus on the content and the context rather than the method of learning. Contrary, among the more competitive employees and young organizations might the situational interest only be awaking if new tools or methods are introduced. The satisfaction of the new learning methods could affect even the creation of individual interest that will further affect the general attitude towards the training activities positively, which is also aligned with the findings that show the positive attitude towards new tools and the use of games as a learning tool.

What motivational factors should be taken into consideration when planning a gamified environment for the training?

Although the training activities at work are very unlikely to be transformed as part of individuals intrinsically motivated actions, could the initial motivation be shifted from extrinsic motivation towards intrinsic motivation through the internationalization of the motivation (Ryan and Deci 2000b). Play and games are appealing for individuals in multiple manners, and therefore they are rather intrinsically guided than motivated by external rewards. Therefore, the use of games and gamification in training activities could enhance the internalization process and change the training from externally regulated towards intrinsically motivated actions. However, as trainings are often work related and urged by employers, will the motivation always be partly external. The findings indicate that the training activities should be motivational for the employees of their content, and the value, but also that an external rewards or support is needed. Therefore, the form of integration would be the most suitable form of external motivation for the training activities as having a separate outcome that is the initial driver for the action but at the same time being appealing for the employee for the inherent satisfaction.

Furthermore, the motivation is affected by the individuals' psychological needs and tendencies (Ryan and Dec 2000b). Figure 1 summarized the motivation to be affected by the attitude, need, stimulation, affect, competence, reinforcement and autonomy that the individual perceives with the activity in question. The findings lift up the

essential importance of the interesting and purposeful content that supports the realization of the need and the value of the training for the work tasks. However, also certain stimulation (from the social learning environment and practical training) and reinforcement (rewards, or comparison of results in leaderboards) are needed to enhance the motivation towards the training activities, which are easily found in gamified activities. Furthermore, as the attitude has a key role in motivation (Wlodkowski in Galbraith 1990; 97-118), the findings show that the attitude towards games as a learning environment is positive. HR3 and HR7 point out the positive attitude the employees have towards games as a learning tool and the participants of the sales simulation showed excitement towards the game. This could be explained by Consultant C notion that the games are a familiar environment for individuals, and therefore they know how to act and behave. Although all generations are used with games, is the new generation even more confident with gamified activities and therefore their attitude towards them as a tool for training is expected to be highly positive.

However, the findings also pointed out the influence of the technology for the training environment. The training environment should be familiar for the users and support the learning to take place. Findings point out the generation shift and young employees that are more familiar with the new technology and having more interactive environments with multiple information channels. Therefore depending on the industry and kind of employees, should the training environment and game elements be designed according to the users to ensure the motivation and interest to be awoken. However, as Game Designer C together with Consultant C pointed out the gamification do not always require certain technology; it can be seen also as a mindset. Therefore gamification can support the training activities also through common attitude or a general spirit.

What possibilities and challenges should be taken into consideration regarding gamifying employee training in future.

The findings point out that the culture of trainings is changing towards supporting a more open and individual training. Social learning and ad-hoc training were brought up by HR representatives to reflect the future need. Furthermore, the training activities should be integrated into the everyday work tasks of individual employees and a certain level of revealing training results should be allowed. The new generation is used to focus in multiple tasks at the same time, and the employees expect the training to be

aligned with their individual needs, and available when needed. Additionally, as the use of games and gamified activities have increased everywhere, are they expected to come ashore in the training field as well. Therefore it is clear that there is a press for a change in the training activities in future.

The majority of the interviewed HR representatives see that the lack of relatedness of the gamified activities could be a challenge for using gamification as a tool for training. Both the findings and theory approve this notion to be crucial; employee engagement is affected by the meaningfulness and the feeling of being valued and useful (Kahn 1990) and if the gamified activities are not designed according to the individuals perception of what is meaningful and needed, might they feel that their time is wasted and therefore their effort is not valued. Therefore, the design of the content for the training activities is the core driver for the initial interest towards the activities. However, as also the findings indicate the challenge is to find the needed and expected training topics that are interesting and appealing to individuals. As HR8 point out, is the communication and cooperation between the employees and the training designers the fundamental solution. The findings also point out that the gamification could increase the amount of personalized trainings, and therefore affect the employees' perception of having meaningful training that is of value, and that the competence and knowledge of the individual is appreciated by providing training that is according to the personal needs.

Likewise literature review, the Game Designers showed concern regarding the perception of gaining positive results by adding randomly single game elements in certain activities, did the organizations seem to understand the importance of the content and context for the gamified training activities and their success. The game dynamics and mechanics can be assumed to already take place in training activities as they often are designed according to the business need and by using real cases. Hence, the Consultant C even described the business to have similarities with games mentioning different game mechanics. Furthermore, the constraints, progression, storytelling, feedback, replay and aesthetics are elements that are naturally related to the content of the trainings, are their existence natural also in gamified training activities. The HR representatives had opposing feelings related to the success of game components depending on the industry and the type of employees. The concern was directed mostly towards the different employees with different interest areas, and how the interest, excitement and motivation can awaken by certain elements, and if their design is in align with the general aim.

Zichermann and Cunningham (2011) claim the points to be the fundamental element of gamification. In training activities, the challenge is how the learning can be measured, and points gathered. It was clear that gathering points from conducted learning activities are not aligned with the overall aim of the trainings; the implementation, understanding and use of the gained knowledge. However, the findings showed that points that are gathered in a social environment have gained good results. Similarly, comparison and competition were perceived as motivational elements when conducted in a social learning environment. Likewise Zichermann and Linder (2013) argue, findings show rewards to be a good motivational element, especially in individual learning environments. However, the tangible reward had more a nominal value, whereas the intangible rewards and internally valued components were seen more powerful. Therefore it could be concluded that the decision of game elements depends on the design of the learning environment; individual learning versus social learning, and the general aim of the training.

The findings point out that the problem in the future might be the new generation that is not able to concentrate on only few things; rather multiple tasks and for a shorter time. Guo and Ro, (2008, p 442) explain the flow experience to absorb the individual, and therefore create an intensive task focus and concentration. Likewise, also Schaufeli et al. (2004) points out the importance of absorption of the activity for the engagement creation. If the training activities are able to satisfy the individuals desire for control, immersion, task focus, enjoyment, loss of self-consciousness, to have clear goals and provide immediate feedback, is the training activity likely to engage the employee (Figure 4). The flow experience is often found in games, and therefore when training content is linked to the game environment the flow is likely to appear also in the training context. Therefore, the flow experience can help the future generations to find a task focus and better concentrate in the training activities.

The findings indicate that the biggest challenge for gamification is the creation of motivational and interesting elements that are appealing for various kinds of employees. Furthermore, as a challenge–skill balance is one of the elements of a continuous flow experience, the challenge is that the designed elements might lose encounter later on, which will affect the continuity of the attendance for the training activities. Moreover, as Zichermann and Cunningham (2011) mentions, to understand the effect of different elements in certain context might be a challenge. Hence, the findings show that the design of elements is strongly influenced by the designers

experience and personality. Furthermore, the findings also clearly point out that the individuals do not get excited of similar activities or elements. However, the findings also lift up that the real effect and response are revealed only by piloting and testing. Therefore, the cooperation between the designer and organizations should be as transparent as possible to ensure efficient communication, the extensive analysis of the employee types, but also to ensure efficient time use and therefore reduce costs and time to design the elements.

Furthermore, a challenge is the technological implications that gamification is bringing to the training activities. (Dominiquez et al. (2013) mentions the problem with the successful use of the technical solutions that might affect the users' perception towards gamification negatively if not working well, while Bhobe (2013) lifts up the multiple platforms and silos that might not be compatible. The findings indicate that although the well-functioning technology is a prerequisite for positive gamification experience, is the previous experience with games and new technology even more crucial. Findings also point out that although the age is not a differentiating factor for the success of gamification is the younger generation more used with games and new technology and therefore they adapt to the new training environment more easily.

Moreover, the connection between game, fun, and work related activities might be a challenge. However, the findings point out that the fun is definitely expected to be part of everyday work when designed correctly. Furthermore, findings together with Kapp (2012) point out that games are not necessary always fun. Therefore, gamification can be efficiently used when it is awaking emotions, and possibly introducing fun to the everyday work, if it is designed to be consistent with the training activities and business in general.

Furthermore, the findings lift up the importance of communication and how the games or gamification is described for the employees. As individuals might have very strong definitions what a game, fun, or work task is, might they feel resistant to an activity that is not aligned with their own definition of the action. The findings pointed out that certain employees might for example see fun and games very contradictory than work related tasks, is the general suggestion to not to emphasize the play or games, neither fun nor enjoyment. Findings clearly point out that they should not in any case be seen as the main purpose, rather as a tool, and therefore to highlight or over emphasize their use is not needed. Furthermore, the industry, the organizational culture, and the national culture must be taken into account when designing training platforms.

Although the findings point out that the biggest hopes for gamification in training activities are within eLearning, is the large scale and the different kind of employees that are conducting the gamified training activities a challenge. Moreover, the findings indicate that the games and gamification fit well to social learning situations when the environment is designed to support the cooperative learning rather than to show individual competence levels.

5.2 Final conclusions

The thesis has broadened the understanding of the use of games and gamification as an engagement and motivational tool in training activities at organizations. The findings clearly point out that the core factor for the successful training activities is the content that is designed purposefully and that is perceived of value and interesting for the individuals, and therefore contributing to one cornerstone of engagement, the meaningfulness of the activity. However, it is also clear that games and gamification can serve as a supportive tool for the challenges that training activities are facing. The motivational challenges where games and gamification can have the most influence are the awaking of interest towards the training activities that the employees might have and to serve as a motivating learning environment. Moreover, games and gamified activities can increase the motivation and interest creation towards the training activities as they are a familiar and safe environment for learning, which also affect one of the cornerstones of engagement, the feeling of safety. Additionally, as the games are a familiar tool for most of the individuals, will the interest creation process be quicker as the situational interest is already awakened. Furthermore, in game environment the social context often appears naturally, and therefore it is useful for the culture creation and to align the employees.

It became also clear that many of the listed elements of gamification are already present in the training activities and environments and also used as tools to facilitate the motivation. Therefore, it can be questioned if the gamification is even a new phenomenon in the training field, or if it has always been there without a clear name.

However, certain challenges should be taken into consideration when designing gamified learning environments. To find elements and characteristics that are motivational for the majority of the users and to ensure that the design of the elements is aligned with the general aim and content of the trainings is crucial. This is done by the extensive analysis of the motivational factors, but also needs, of the users.

Additionally, as the training activities expected to be closely related to everyday activities, should also the technology and type of gamified activities be designed carefully depending on the industry and kind of employees. Furthermore, when planning elements that compare individual results, should the privacy protection and feeling of safety be taken into account. Moreover, especially when designing environments that are supposed to be seen as enjoyable and fun, should the cultural issues be paid attention to. Furthermore, individuals might have different perceptions of fun and where it fits, and this should therefore be taken into careful consideration.

The training activities in future can definitely get benefits from games and gamification. However, as the findings point out, should gamification be designed extremely carefully to ensure a successful outcome. Some of the game elements are already now naturally appearing at training activities, whereas some elements could be added to increase the engagement and motivation. The findings point out though that the game elements as points, leaderboards, badges, or competition are assumed to work best in team environments and comparing bigger groups. The importance for the feeling of safety is then also ensured, which affects the individuals' engagement towards and activity. However, the individually conducted eLearning environment that would be gamified to increase the motivation gained also support. Furthermore, the findings lifted up the characteristics of the new generation requiring interactivity, and that has rather interest for short and focused activities than long trainings. Therefore short, gamified learning solutions could support their motivation and engagement towards training activities at organizations in future. Moreover, the feeling of flow that is often found in games support the concentration and increase the focus to the learning activities, and therefore help the new generations to concentrate for a longer time. Therefore gamification can serve as a motivational tool for the future generations in multiple manners.

5.3 Suggestions to further research

The training activities can be expected to be in a breaking state. As the use of internet and online training activities increase, will the field of training activities to be forced to change. Therefore, it would be of interest to see exactly what kind of games and gamified activities are used currently, and what the response for them has been. The thesis only grasped the edge of the broad use of games, and therefore to know more precisely what kind of training activities are currently used would be of interest.

Furthermore, as the thesis also weakly noted, is there slight differences between the different industries and what kind of people work in which field. Therefore, to know if there are clear differences between the industries with adaptation to new teaching techniques would be of value. This would also broaden the understanding about the potential role of gamification in the training field by understanding the different motivational elements and used training activities within certain fields.

Moreover, as the popularity of eLearning has widened, would it be of interest to see what kind of gamified elements would fit specifically into an eLearning platform. Although the scalability of motivational elements is still doubtful due to the individual differences and the cost of carrying out a gamification project, would it be of interest to empirically verify the functioning of a gamified eLearning platform.

SVENSK SAMMANFATTNING

Inledning

Utbildningen av anställda är en av de svåraste men viktigaste aktiviteterna för organisationerna att arrangera (Winfred, Winston, Edens och Bell 2003). En lyckad utbildningshelhet behöver dock två medverkande: anställda som är ivriga att lära sig nytt, och ett företag som erbjuder intressanta utbildningsmöjligheter som är av bra kvalitet. De anställda borde ha ett eget intresse för och motivation att delta i arbetsgivarens utbildningsaktiviteter och egen vilja att förändra sitt beteende och lära sig nytt. Detta är dock inte alltid situationen i organisationer (Ryan och Deci 2000).

Spel är lockande (Kim et al. 2008). Spelifiering (gamification), att använda spelelement och tekniker i icke-spel-sammanhang, förväntas att förändra affärsvärlden (Kapp, 2012). Fritiden har blivit mera skoj under de senaste åren och intresset för att låta denna mentalitet erövra också vardagen på arbetsplatser har fått mycket stöd (Kark 2011). Trots att spelens stora inverkan har fått uppmärksamhet, finns det bara spekulationer om hur spelifiering skulle kunna utnyttjas vid organisationerna.

Problemområde

Engagerade arbetstagare är en av de viktigaste grundstenarna för organisationerna i framtiden (Zichermann och Linder 2013). Metoderna och aktiviteterna som används för tillfället för utbildning i organisationer motsvarar dock inte de förväntningar som den unga generationen har (Zichermann och Linder 2013). Dessutom kan metodernas effektivitet ifrågasättas om de anställdas intresse och attityd gentemot dem inte är positiv. Frågan är hur organisationerna kan svara på behovet av interaktiv, flexibel och mobil utbildning (Kapp 2012).

Allt kan inte vara roligt, men nöje kan vara fördelaktigt för organisationer om nöjet tas in ändamålsenligt. Att använda spelifiering som verktyg för att stöda inlärning har fått mycket uppmärksamhet på undervisningsanstalter (Deloitte, Gamification goes to work), men det finns inte forskning om hur spelifiering skulle kunna främja utbildningsaktiviteter i andra typer av organisationer. Därmed kommer denna avhandling att studera spelifieringens möjligheter i organisationernas inlärningskontext.

Syfte, avgränsningar och tack

Denna avhandling skapar mera förståelse kring hur spelifiering kunde användas för att påverka de anställdas engagemang och motivation i utbildningsaktiviteter i organisationer. Mera specifikt svarar avhandlingen på frågan:

Hur kan de anställdas engagemang och motivation för utbildningsaktiviteter påverkas och utökas med hjälp av spelifiering?

För att förstå vilka faktorer som spelifieringen möjligen skulle kunna påverka inom utbildningsaktiviteter, svarar avhandlingen på frågan:

Vilka faktorer som påverkar individens motivation borde tas i beaktande när en spelifierad utbildningsmiljö planeras?

Vilka möjligheter och utmaningar borde tas i beaktande när en spelifierad utbildningsmiljö planeras för framtiden?

Avhandlingen kommer inte att ta hänsyn till de olika utbildningsmetoder som används för tillfället. Dessutom siktar avhandlingen på att förstå en större helhet gällande spelifiering och dess möjligheter inom utbildningsaktiviteter, och kommer därför inte att betrakta skillnader mellan olika industrier, positioner, kön, eller ålder. Skillnad görs inte heller mellan spel och spelifiering på grund av den allmänna uppfattningen att de hänger ihop. Dessutom är avhandlingens resultat bara riktgivande på grund av bristande praktiska erfarenheter av användning av spelifiering inom utbildning vid organisationer.

Jag riktar ett stort tack till Tarmo Kekki och Suomen Paras Myyntiorganisaatio för deras stöd, givande diskussioner, samt hjälp med litteratur insamling under skrivprocessen. Dessutom vill jag tacka Nina Granqvist, alla mina vänner och min familj som orkade visa intresse och ge ett lyssnande öra till idéer och ämnen som avhandlingen omfattar.

Litteratur-genomgång

Engagemang och motivation

Engagemang påverkar individens entusiasm och benägenhet att delta i aktiviteter (Kahn 1990, Reeve et al. 2004). Kahn (2010) beskriver känslorna av meningsfullhet,

trygghet samt tillgänglighet som villkor för att engagemang kan uppstå. Meningsfullhet syftar till aktivitetens värde för individen samt tidsanvändningen för aktiviteten. Meningsfullhet påverkas av aktivitetens egenskaper, egna kunskaper samt individens önskan att utveckla sig (Kahn 1990). Känslan av trygghet påverkas däremot av miljön och känslan av pålitlighet, samt att individens självkänsla inte skadas. Dessutom har den sociala miljön en stor inverkan (Kahn 1990). Tillgänglighet är en kombination av den fysiska och känslobaserade vitalitet som möjliggör individens deltagande i aktiviteter (Kahn 1990).

Engagemang i inlärning är mycket individuell. Den kan påverkas av aktivitetens utmaning, kontroll, immersion, intresse, och syftet med den (Whitton 2011: 605). Dessa faktorer samt känslan av engagemang kan påverkas av motivation och dess olika element, individens intresse samt känslan av flow (Eccles och Wigfield 2002, Reeve et al. 2004).

Motivation

Motivation är drivkraften för att komma fram till ett ändamål eller uppnå något. Motivationen visar dessutom riktningen för individens ageranden (Ryan och Deci 2000; Ryan och Deci 2000b). Figur 1 i avhandlingen summerar de viktigaste faktorerna som påverkar motivationen: attityd, efterfrågan, stimulering, inverkan, kompetens, förstärkning och autonomi. Därutöver kan motivationen delas in i intern och extern motivation. Intern motivation skapas inom individen, och handlingarna utförs utifrån tillfredställelsen och deras mening för individen (Eccles och Wigfield 2002; Ryan och Deci 2000; Peng och Hsieh 2012). I extern motivation kommer däremot drivkraften att utföra handlingen utifrån, och oftast stöds detta även med externa belöningar (Eccles och Wigfield 2002; Ryan och Deci 2000; Ryan och Deci 2000b; Peng och Hsieh 2012). Extern motivation kan ytterligare delas i fyra olika delar beroende på de externa faktorernas styrka och påverkan på individens ageranden. Figur 2 i avhandlingen summerar dessa typer av extern motivation. Ryan och Deci (2000b) argumenterar dessutom, enligt självregleringsteorin (self-regulation theory) att individen kan förändra sin motivation från extern reglering till integration med hjälp av en internaliseringsprocess (internalization process). Därmed är engagemang även själv-reglerat i viss mån.

Intresse

Intresse är individens agerande som påverkas av det emotionella tillståndet och benägenheten för en viss aktivitet, som karaktäriseras av ökat fokus, uthållighet och ökad handlingsförmåga (Ainley et al. 2002: 545). Intresse har dessutom alltid ett objekt och en riktning, och är oftast ett omedvetet val fast individen kan påverka intressets inriktningar (Hidi och Harackiewicz 2000, Hidi och Renninger 2006). Intresse kan dessutom delas i fyra olika skeden som visas i figur 3 i avhandlingen. Dessa är uppväckt situationellt intresse, upprätthållet situationellt intresse, uppkommande individuellt intresse och väl-utvecklat individuellt intresse. Ett fullkomligt intresse kräver att alla dessa fyra stadier etableras (Hidi och Renninger 2006).

Flow

Engagemang och känslan av flow skiljer sig från varandra genom att flow är en kortvarigare upplevelse medan engagemang är en fullkomlig och långvarig känsla (Shaufeli et al. 2002). Individen känner sig omringad av en aktivitet, medvetandet av omgivningen försvinner och individen har en intensiv fokus på något (Csikszentmihalyi, 1988 i Eccles och Wigfield 2002; Guo och Ro 2008). Figur 4 i avhandlingen summerar flow-upplevelsens element.

Hur motivation, intresse och flow påverkar inlärning

Intern motivation har en stor påverkan på människornas vilja att utveckla sig (Ryan och Deci, 2000b). Dessutom krävs individuellt intresse för objekten eller aktiviteten i fråga för att intern motivation ska uppstå (Hidi 2001). De individer som är motiverade att utbilda sig har förväntningar gällande utbildningen: De vill lyckas, de är ivriga, de ser inlärningen som värd något, de njuter av aktiviteten, de deltar i den frivilligt, de förväntar sig att inlärningsmetoden har gott rykte och en bra utformning, att utbildningen är relevant för karriären och för det privata livet, samt att utbildningsmiljön är stödande (Aziz och Ahmad 2011; Hid 2001; Wlodkowski i Galbraith 1990: 97-118). Dessutom påverkas individens engagemang mot arbetsplatsen av feedback-möjligheterna och möjligheterna till en kontinuerlig utbildning samt olika belöningar, och därmed påverkas också engagemanget mot utbildningarna som arbetsplatsen erbjuder (Wollard och Shuck 2011). Individernas självförtroende kan också påverkas genom att erbjuda rolig utbildning som stärker deras självkänsla vilket därmed påverkar deras interna motivation gentemot utbildningen (Wlodkowski

iGalbraith 1990: 97-118). Dessutom spelar flow-känslan en viktig roll för att individen ska uppleva inläringssituationen som givande (Guo och Ro 2008). Därtill har personens egenskaper också en stor påverkan på inläringen tillsammans med den sociala miljön (Egbert 2003; Guo och Ro 2008; Raphael et al 2012).

Lek, spel och spelifiering i inlärningskontext

Att leka har alltid varit en viktig del av människornas uppväxt. Att leka (to play) definieras som en tillvaro mellan fantasi och verklighet som präglas av att gamla och nya beteenden övas och blandas (Mainemalis och Ronson 2006: 510; Sandelans 2010: 72). Ett spel (a game) är däremot en abstrakt aktivitet som har en klar struktur som styr individens ageranden (Kapp 2012: 7). Lek framhäver kreativitet, motivation, att prova nya saker samt överkomma hinder (Kark 2011; Mainemalis och Ronson 2006). Dessutom är det ett bra tillvägagångssätt att öva för framtiden, att förstå beteenden samt att lära sig nya kunskaper i en trygg miljö (Kark 2011). Sociala miljöer som ofta finns i spel uppmuntrar dessutom kommunikation och spridandet av information under utbildningens gång, samt stärker de sociala relationerna (Mainemalis och Ronson 2006; Sandelans 2010).

Spelbaserad inläring

I spelbaserad utbildning används spel som verktyg för inläringen (Wu et al. 2011). Spelens regler och berättelsen fungerar som grund för spelbaserad inläring som främjar både individens teoretiska och praktiska kunskaper (Ang, Avni och Zaphiris 2008, i Wu et al. 2011; Simões et al. 2013). Spel fungerar dessutom som en trygg inläringssmiljö (Kolb och Kolb 2010). Trots allt kan designen på spelen framstå som en utmaning: hur göra ett roligt och lockande spel som sammanfaller med utbildningens ändamål och innehåll (Garris, Ahlers och Driskell 2002; Leemkuil och De Jong 2012). Dessutom bör man se till att det roliga och nöjet inte framhävs för mycket (Siewiorek et al. 2013). Dessutom trivs inte alla individer i spelmiljöer och detta måste också tas i betraktande när inläringsspel och miljöer utformas.

Spelifiering

Spelifiering är att använda spelelement och spel-tekniker i sammanhang som inte är spelrelaterade (Domíniguez et al. 2013; Bess 2013; Kapp 2012; Mehta och Kass 2012; Simões et al. 2013; Zichermann och Cunningham 2011 och Zichermann och Linder 2013). Spelifieringens idéer är att förstå drivkrafter som används i spel, och använda

dessa krafter i andra sammanhang för att engagera och motivera människor (Kapp 2012; Zichermann och Cunningham 2011; Zichermann och Linder 2013). Med hjälp av spelifiering kan individens engagemang och motivation främjas och även påverkas att vara mer långvarigt (Domíniguez et al. 2013; Kapp 2012; Simões et al. 2013). Spelifiering kan dessutom påverka individens attityd mot den spelifierade aktiviteten, öka aktivitetsnivån samt stöda en tätare social sammanhållning inom organisationen. (Bunchball 2010; Mainemalis och Ronson 2006; Sandelans 2010).

Spelifiering är inte bara att designa spel (Bess 2013). Idéen är att människornas engagemang och motivation ska förstärkas med hjälp av spel och nöje (Kapp 2012). Därutöver är spelificering inte samma som spelbaserad inläring, simulation, eller seriösa spel. Spelbaserad inläring använder spel för utbildningsändamål, seriösa spel är datorspel eller brädspel som används för ett visst ändamål, och simulationer används för att reflektera en riktig händelse, medan spelifiering är att använda element från spel i sammanhang där de i vanliga fall inte alls används (Kapp 2012; Werbach 2014, Coursera 2.2) Spelifiering uppnås inte heller bara med att tillägga ett enskilt spelelement till det nya sammanhanget; det är en bredare ideologi som kan byggas upp bara genom att använda flera element som stöder den spelifierade aktivitetens primära ändamål.

Spelifieringens byggstenar, spelelementen

Spelifiering är en process där olika spelelement tillsammans skapar en helhet som främjar individens engagemang och motivation (Bhobe 2014, gamification.co; Kapp 2012, Hamari 2013; Zichermann och Linder 2013). De spelelement som används i den spelifierade aktiviteten måste stöda aktivitetens primära ändamål för att vara verkkningsfulla. Människorna ska också se sammanhanget som passande och därmed acceptera den spel-aktiga miljön och låta den påverka deras beteende (Bhobe 2014, gamification.co; Zichermann och Cunningham 2011). Det är bara de väl designade och ändamålsenliga spelelementen som kan styra beteendet (Hamari 2013). Spelelementen kan kategoriseras i tre olika delar enligt elementens fundamentala natur: spel-dynamiker, spel-mekanismer och spel-komponenter (Werbach 2014, Coursera 4.2) Till spel-dynamiker hör restriktioner, framåtskridandet, berättelser och känslor. Till spel-mekaniker däremot hör mål, att vinna, utmaning, belöning, feedback, och omtagning. Poäng, märken, poängtabell, nivåer och estetiken däremot definieras som spel komponenter. Figur 5 i avhandlingen summerar kategorierna och elementen som hör till varje kategori.

Spelifiering i samband med utbildning

Till spelifieringens utmaningar inom utbildningssyften hör integrering av de olika plattformarna och systemen till vardagliga arbetsuppgifter för att åstadkomma en fungerande, och därmed motiverande, helhet. För att människors intresse ska upprätthållas, borde miljön dessutom vara utmanande och uppdateras (Bhobe 2013, hrecaminer.com) Därtill kan känslorna som oftast hänger ihop med spel, som nöje och att ha roligt, uppstå som ett problem i den seriösa arbetsmiljön (Gamification goes to work, Deloitte.com). Att förstå sammanhanget som skall spelifieras kan också vara en utmaning, liksom att förstå vad människor motiveras av och hurdana element som skulle kunna användas (Harviainen et al. 2012).

Det finns inte klar forskning om spelifieringens positiva påverkan på inläring, men klara tecken finns att den kan stöda inläring starkt. Elementen som skapas för att stöda engagemang i utbildningsaktiviteter borde dessutom hellre stöda individens interna motivation för att gynna uppkomst av flow-känslan (Simões et al. 2013).

Metodologi

Forskningsstrategi och design

Forskningsmetoden för avhandlingen följer ideologierna för en konstruktionistisk forskning med grundad teori som övergripande metod med ett abduktivt resonemang (Easterby-Smith et al. 2012).

I konstruktionistisk forskning finns det inte bara en sanning, utan istället försöker man hitta sammanhängande teorier och förstå hur teorierna framträder i vardagen (Easterby-Smith et al. 2012). Därmed försöker grundad teori skapa förståelse kring olika situationer och hur sakerna hänger ihop (Fendt och Sachs, 2008). Denna forskningsstrategi har valts på grund av forskningsobjektens instabila tillvaro: spelifiering är ett nytt fenomen och dess tillvaro i utbildnings-sammanhang i organisationer är ojämnt förankrad. På grund av att empiriska data samlats med en relativt bred förståelse om de forskade ämnena, är resonemanget abduktivt.

Data samlades med intervjuer och observationer. Intervjuerna var semi strukturerade med planerade diskussionsämnen och öppna frågor. På grund av den valda forskningsstrategin var intervjuerna uppmuntrande för vidare diskussioner och därmed fanns inte strikta frågor som skulle avgränsa diskussionerna. Det är viktigt för

forsknings-designen att empiriska data talar för sig, och lyfter fram oväntade ämnen. Dessutom möjliggjorde detta tillvägagångssätt analys av intervju objektens röst användning, samt att vidare diskutera samtalsämnen (Easterby-Smith et al. 2012). Fast intervju objekten var informerade om spelifiering, samt de allmänna samtalsämnena, var intervjuerna sällan begränsade till bara dessa ämnen. Därmed var följden att samtalsämnena varierande. Intervjuerna hade tyngdpunkt på olika delar. Utbildningskonsulterna intervjuades mera om motivation och hurdana metoder de använder för att engagera de anställda i företagen när fokus i intervjuerna med spel-designers låg klart i spelelement samt deras erfarenheter av hur vissa element kan användas för att främja anställdas motivation. HR-representanter tillfrågades om anställdas motivation samt faktorer som påverkar deras intresse mot utbildning.

Observationerna fokuserade på observations-objektens resonemang och beteende under utbildningstillfällena. Ett simulations-spel för försäljnings representanter observerades under två dagar av mig som en neutral observatör. Målet med denna observation var att förstå de anställdas intresse mot utbildningsformen, samt förstå hur spelelementen fungerade för att främja utbildningen. Känslor, beteenden, ansiktsuttryck samt atmosfären under simulationen analyserades. Därutöver observerades, en eLearning plattform av mig som en deltagare. Målet var att förstå de anställdas intresse och engagemang för en online-utbildning, analysera reaktionerna samt förstå hur spelelement skulle kunna passa in i en utbildnings miljö som är online. Fokus låg på känslor, beteenden samt orsak och verkan.

Datasamling och analysmetod

Stickprovet för forskningen bestod av representanter från tre olika grupper: HR-representanter (11 st.), utbildningskonsulter (3 st.) och spel-designer (3 st.). Intervju-objekten var målmedvetet kontaktade, med syfte att hitta representanter inom olika industrier samt med olika bakgrund. Två organisationer var representerade av två HR-representanter. Alla HR-representanter hade ett ansvarsområde antingen inom HR-ledning eller utbildningsaktiviteter. Alla utbildningskonsulter hade olika utbildningsområden samt olika metoder som de använder i deras utbildningsaktiviteter. Dessutom hade alla spel-designers olika bakgrund inom spelindustrin samtidigt som de alla var insatta i att designa spel eller spel element för företag. Tabellerna 1-, 2- och 3 i avhandlingen beskriver intervju-objekten mera specifikt samt visar tidpunkten för intervjuerna. Tabell 4 i avhandlingen summerar informationen gällande observationerna.

Intervjuerna gjordes för det mesta ansikte mot ansikte med några undantag som gjordes via telefon eller Skype på grund av avstånd eller tidsbrist. Språket för intervjuerna var finska med ett undantag på engelska. Alla intervjuer transkriberades för att möjliggöra en djup analys samt för att hitta samband mellan samtalsämnena. Grundläggande anteckningar gjordes under båda observationerna för att möjliggöra en noggrann analys av samband mellan ämnena.

Analys av data skedde enligt den valda forskningsstrategin utan förutsättningar eller på förhand strukturerade ämnena. Det abduktiva resonemanget och grundad teori förutsätter att empiriska data lyfter fram kunskap, och framhäver därmed att sammanhängande ämnena och ny kunskap är i fokus för att upptäcka nya teoretiska implikationer (Easterby-Smith et al. 2012; Fendt och Sachs 2008). Därmed är analysen uppbyggd så att likartade samtalsområden, faktorer och ämnena upptäcks i intervjuerna och observationerna. Därefter utforskas deras likheter och relationer för att upptäcka större ämnesområden. Ämnesområden som framhölls var motivation och intresse för utbildningsaktiviteter, användning av spel och spelelement i utbildnings sammanhang samt framtiden för spel och spelelement i utbildningsaktiviteter. För att undvika antaganden samt att för aktivt efterspara likartade faktorer från det empiriska materialet användes en längre tidsperiod mellan data insamling och analys.

Forskningskvalitet

Validiteten av forskningen kan påstås vara av hög kvalitet på grund av flerfaldiga och mångsidiga data. Data består av intervjuer med representanter från olika industrier, som även representerar olikartade ämnesområden inom dessa industrier. Dessutom är observationerna mycket olika. Reliabiliteten är därmed tidsberoende. Om denna forskning skulle upprepas inom en kort tidsperiod kommer svaren sannolikt vara mycket lika, men efter en längre tidsperiod är svaren troligen mera omfattande och det finns praktiska exempel på spelifieringens inverkan. Därutöver är reliabiliteten av denna forskning påverkad av behovet att förklara ordet spelifiering och användning av spel inom utbildnings aktiviteter för HR-representanter. Fast en kort förklaring av fenomenet skickades till alla intervju objekt måste fenomenet alltid förklaras på nytt, och därmed kan denna brist på förståelse av fenomenet påverka reliabiliteten. Därutöver försäkrades objektiviteten i denna studie med en längre tidsperiod mellan datainsamlingen samt analys av data.

Redogörelse av resultaten

Anställdas intresse för utbildningsaktiviteter verkade för det mesta bero på utbildningsinnehållet samt hur relaterat innehållet är för individens arbetsuppgifter. Faktorer som behov av utbildning som uppstår från vardagslivet, intressant innehåll som är relaterat till vardagliga arbetsuppgifter, personlig utbildning, värdefulla utbildningar, praktisk utbildning samt den sociala omgivningen hade en klar påverkan på engagemanget och motivationen. Dessutom kom det fram att mera traditionella industrier har mera passionerade anställda som är mera kritiska till innehållet samt metoden för utbildningsaktiviteterna. Därtill har individerna mycket annorlunda intresseområden, vilket framstår som en utmaning när man borde hitta gemensamma motiverande element och utbildningsinnehåll. En annan utmaning i framtiden kommer att vara den nya generationen och dess livliga livsstil och oförmåga att fokusera på bara en sak åt gången. Dessutom kan naturlig lathet, ineffektivitet samt hektiska arbetstider vara ett problem. Figur 6 i avhandlingen summerar resultaten gällande både faktorer som motiverar de anställda för tillfället samt vad som ses som utmaningar.

Resultaten indikerar att spelens trygga inlärningsmiljö samt bekanthet stöder deras användning i utbildningsaktiviteter. Dessutom är spel en mycket motiverande metod för inläring för organisationer med aktiva anställda. Konsult C påpekar också att spel har mycket likheter med organisatoriska aktiviteter: ett mål, milstolpar och stark fokus i aktiviteten. Både observationerna och intervjun med HR8 pekar klart på att spel dessutom kan vara den bindande faktorn mellan det vardagliga arbetet och utbildningsaktiviteter. HR11 påpekar dock att spel också kan skjuta arbetet och utbildningen ifrån varandra om de inte är designade ändamålsenligt. Som utmaningar för spel och spelifiering lyfter resultaten fram kunskap gällande faktorer som motiverar individen, kulturen, kompetens-nivån, personliga krav på utbildning, kommunikation, mängden tidigare kunskap om teknologi eller spel, samt deras syn på vad som är roligt och vad som kan vara roligt. Figur 7 i avhandlingen summerar de utmaningar som spel och spelifiering antas ha när de används inom utbildningsaktiviteter. En slutsats är att analytiska kunskaper och öppen kommunikation samt innehållets uppbyggnad är grundläggande faktorer som påverkar på spelifieringens framgång i utbildningsaktiviteter. Anställdas ålder tycktes inte vara ett problem, men intervjuerna lyfte fram den yngre generationens flexibilitet samt erfarenhet att spela spel och använda teknologi som en faktor som har inverkan på att det är lättare för dem att tillägna sig spelifierade funktioner.

Den största utmaningen är dock enligt spel-designerna att bygga spelelement som stöder det ursprungliga ändamålet av den spelifierade aktiviteten. Mest stöd fick grupp-aktiviteter där tävling, poäng och jämförelser används för att främja engagemang och motivation, men också individuellt gjorda eLearning-aktiviteter skulle kunna stödas med hjälp av spelifiering. Dessutom kan enligt intervjuerna spelifiering stöda den sociala miljön, främja uppkomsten av kommunikationskanaler samt förstärka kulturen. Spelifieringens nöjes-element passar dåligt in i utbildningsmiljön enligt ett företag inom mycket traditionell industri. Detta tyder på att det är oerhört viktigt att känna de anställda för att kunna veta vad som är lockande för dem.

Diskussion och slutsatser

Hur kan de anställdas engagemang och motivation för utbildningsaktiviteter påverkas och utökas med hjälp av spelifiering?

Engagemang är uppbyggt på tre pelare: meningsfullhet, trygghet och tillgänglighet. (Kahn, 1990). Resultaten pekar klart på att ett innehåll som är designat ändamålsenligt och som stöder individens vardagliga arbetsuppgifter fungerar som den viktigaste motivatorn för utbildningsaktiviteter, vilket reflekterar att aktiviteten ska upplevas som meningsfull av individen. Både resultaten samt litteratur genomgången antyder att spel ses som en trygg och bekant miljö, vilket direkt påverkar känslan av trygghet. Trygghetskänslan kan dock ta skada om en individuell utbildningsmiljö är designad på ett för konkurrerande sätt eller använder opassande spelelement. Tredje hörnstenen för engagemanget, tillgängligheten, kan främjas med spelifiering som förbättrar tidsanvändningen och kan bättre länka ihop utbildningsaktiviteter med vardagliga arbetsuppgifter. Resultaten pekar dessutom på att den unga generationen är mera van med spel och interaktivitet, vilket stöder också skiftet mot mera interaktiva utbildningsplattformar som upplevs som effektiv tidsanvändning och påverkar på känslan av tillgänglighet.

Fast individerna oftare motiveras med hjälp av externa belöningar, är påverkan av intern motivation starkare (Ryan och Deci 2000). Trots detta är båda vitala för en lyckad inlärningsprocess (Ryan och Deci 2000b). Att spela är lockande för individer både via externa faktorer men också via deras interna värde. Med hjälp av spelelement som fungerar som externa motivationsfaktorer kan man väcka individens inre motivation och intresse mot aktiviteten ifråga, och därmed påverka utbildningen. Speciellt simulations-observationen tydde klart på att spelelement stödde individernas

motivation att delta i aktiviteten, vars värde och nytta i vardagliga arbetsuppgifter blev klar först senare.

Därutöver kan spelens bekanta miljö fungera som en intresse väckande händelse för utbildningen. Processen för intresse att väckas kan däremot ses som kortare på grund av att individerna redan har erfarenhet av att spela och det individuella intresse är redan uppväckt.

Vilka faktorer som påverkar på individens motivation borde tas i beaktande när en spelifierad utbildningsmiljö planeras?

Fast arbetsplatsens utbildningsaktiviteter mycket sannolikt inte kommer att bli en del av individernas inre värden, kan motivationen dock förändras från extern till mera intern med hjälp av spel och spelelement. Enligt Hidis (2001) självregleringsteori kan individerna påverka sina intressen, och därmed kan det antas att intresse för utbildningsmiljöer som är intressanta och som individen ser som värdefulla för en, kan förstärkas med hjälp av lockande spelelement. Resultaten indikerar att fast innehållet och kontexten är det viktigaste för individen gällande utbildningsaktiviteter, behövs det dock alltid också externa faktorer som stöd. Därmed kan man anta att den externa motivationens ”integration” skulle vara den bästa möjliga motivations-formen för en engagerande och motiverande utbildning, där individen känner att aktiviteten är värdefull i sig men som slutligen görs på grund av en extern belöning.

Figur 1 i avhandlingen summerar att motivation påverkas av faktorer som attityd, efterfrågan, stimulering, inverkan, kompetens, förstärkning, och autonomi. Resultaten tyder starkt på att ett meningsfullt innehåll och praktiskt tillvägagångssätt är de främsta faktorerna som påverkar de anställdas motivation för utbildningsaktiviteter. Dessutom lyfter resultaten fram att stimulering som fås från den sociala miljön och aktiviteternas praktiska natur behövs, samt att förstärkning och stöd krävs för deltagandet och uppförandet av aktiviteter. Dessa skulle kunna erbjudas med hjälp av spelelement som poäng, märken och tävling. Dessutom indikerar resultaten att attityden mot spel är generellt mycket positiv, vilket är vitalt för att motivation uppstår.

Vilka möjligheter och utmaningar borde tas i beaktande när en spelifierad utbildningsmiljö planeras för framtiden?

Resultaten visar att utbildningskulturen borde, och håller på, att förändras mot utbildning som motsvarar individernas personliga behov och som dessutom skulle

erbjudas mera ad-hoc. Dessutom är den unga generationen inte van vid att fokusera länge och hantera stora utbildningshelheter. Därmed kan det påstås att en förändring i utbildningskulturen behövs, och att spel samt spelifiering motsvarar och stöder det kommande behovet av en annorlunda utbildningsform. Många av elementen som listas som spelelement används redan nu i utbildningsaktiviteter, och därför kan ökningen av dem ses som fördelaktigt. Dessutom indikerar resultaten att organisationer som använder spel i sina utbildningsaktiviteter för tillfället anser att dess sociala miljö gynnsam för företagskulturen och att de har starka sociala relationer inom organisationen.

Trots allt, finns det vissa saker som borde beaktas när spelifiering planeras för utbildningsaktiviteter. De flesta HR-representanterna påpekar att spelifieringens och utbildningsaktiviteternas orelaterade väsen är en utmaning för dess framgång. Frågan om vad som lockar anställda lyftes fram som en av de största utmaningarna. Resultaten poängterar trots allt att detta kan undvikas med öppen kommunikation samt samarbete i design processen. Dessutom är det avgörande att hitta element som främjar majoritetens motivation och att se till att elementen är designade ändamålsenligt för aktivitetens genuina ändamål. Dessutom borde tekniken för utbildningen samt spelifiering vara bekanta och relaterade till individens vardagliga arbetsuppgifter, och de borde planeras enligt industrins och individernas egenskaper. Därutöver, när målet är att göra roliga aktiviteter, borde kulturella skillnader i vad som anses som roligt tas i betraktande. Dessutom kan även individerna ha olika åsikter om vad som är roligt och detta bör beaktas.

Resultaten indikerar att spelelement som poäng, märken, poängtabeller eller tävling fungerar bäst i grupp aktiviteter och när större grupper jämförs. Resultaten pekar dock på att spelelement skulle kunna fungera mycket bra också på eLearning plattformar, speciellt om miljön är designad så att man deltar anonymt. Dessutom ansågs belöning vara ett motiverande element, både materiella och immateriella belöningar. Resultaten lyfter också fram generations skifte och den unga generationens tendens att inte kunna fokusera under långa tidsperioder. Med hjälp av spelifiering skulle deras motivation och intresse kunna påverkas i framtiden. Det kan dras som slutsats att valet av spelelement beror på utbildningsaktivitetens design: sker inläringen individuellt eller i grupp, samt av utbildningens ändamål. Dessutom bör individuella och kulturella faktorer beaktas.

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APPENDIX 1 TOPIC GUIDE FOR THE INTERVIEWS WITH HR REPRESENTATIVES AND TRAINING CONSULTANTS TOGETHER WITH INTRODUCTION OF GAMIFICATION

Gamification – a new tool for employee training

Gamification is a new trend, or more specifically, a new word for a phenomena already used for multiple years by organisations. Gamification is the use of game elements and techniques in non-game contexts. It is a powerful tool to use for employee engagement and to increase the motivation, but also for linking the training and everyday work tasks together. Therefore, my master's thesis is trying to understand, and find out about the possibilities that gamification could bring for the employee trainings.

The interview would be a discussion for around 30 minutes of the topics mentioned below. Rather than trying to find a direct answer for specific questions, I am trying to understand the overall phenomena of gamification activities in organisations and the use of different training methods, and therefore I will not use any specific questions or a questionnaire. Below the topics I would like to discuss with You:

Gamification

- Is this already used in your organisation/trainings in some ways? Is it used in employee training?
- How do you feel about bringing “serious fun” to work?

Employee training

- What kind of methods you currently use? (Class room/eLearning/simulations?)
- What is the employees' attitude towards these training methods?
- What are the challenges of these methods?

Engagement and motivation in employee training

- What do the employees get excited of?
- How are the trainings glued with and into the normal workday tasks?
- How do you engage your employees in the training activities?
- Do you test/check how the employees have perceived and understood the content of the trainings?

APPENDIX 2 TOPIC GUIDE FOR THE INTERVIEWS WITH GAME DESIGNERS

Gamification and Games

- Own background and the use of games or gamification
- The attitude of the customers/people towards games and gamification
- Different game elements and their use
- Used theory
- Age / generation / kind of people affecting the use of games or gamification
- Challenges
- Games and gamification in training context
- The future

Motivation and engagement

- Motivation of people
- Difference of the people
- Perception of fun
- Challenges