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Managing the Creative Process in Game Development

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ABSTRACT

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Finnish game development companies have been making global headlines in the recent years, but their unique creative processes have yet not been extensively studied. This thesis aims to describe the creative process in game companies and identify which aspects are most important in managing it.

This research was done by interviewing professionals in the game industry and then analyzing the interview results based on the theoretical framework. The framework was built from varying theories about the creative process, leadership and management as well as team development. Informed grounded theory was used to analyze the research data.

The outcome of this study suggests that the key to successfully managing the creative process in game development lies in making sure that the project's creative vision is executed cohesively throughout the organization. A good team is essential, but so is allowing the team the freedom to lead itself.

TIIVISTELMÄ

Suomalaiset peliyritykset ovat saavuttaneet kansainvälistä huomiota viime vuosina, mutta niiden yksilöllistä luovaa prosessia on hädin tuskin tutkittu. Tämä tutkielma pyrkii kuvailemaan peliyrityksien luovaa prosessia ja tunnistamaan sen johtamisen tärkeimmät aspektit.

Tutkimus suoritettiin haastattelemalla pelialan ammattilaisia ja sen jälkeen analysoimalla haastattelutuloksia teoreettista viitekehystä vasten. Viitekehys rakentuu eri luovan prosessin, johtajuuden ja tiiminkehitysteorioista. Tutkimusaineisto analysoitiin informed grounded theory-tutkimustapaa käyttäen.

Tämän tutkimuksen tulokset osoittavat, että avain onnistuneeseen luovan prosessin johtamiseen pelinkehityksessä on luovan vision yhtenäinen toteutuminen. Hyvän tiimin merkitys korostuu tärkeäksi, mutta sille tulisi myös antaa riittävästi vapautta johtaa itse itseään.

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1. Introduction

In this year of 2017 we are living in an age where technology is a constant of our everyday lives. While technological innovations in areas such as robotics and telecommunications may feel the most relevant to our growth as a society, there is no denying the effect that video games have had on the way of our lives for the past few decades. While there seems to be no exact definition, multiple interpretive definitions for "video games" exist, as it is common to use the word to refer to both the technological support devices, i.e. the hardware, as well as the individual games themselves (González-Piñero, 2017). It can also be argued that video games are best understood in terms of their larger role and their function in the media ecology, perhaps as a microecology or —a small, specialized environment within a larger media ecosystem (Bogost, 2011).

The origin of video games can be placed in the 1950s, with a computerized version of Tic Tac Toe that allowed a human player to play against a machine. The 70s represented the true emergence of video games, with the commercialization of Computer Space 1971 by Nolan Bushnell. (González-Piñero, 2017) Ranging from childhood classics like Super Mario to the casual Facebook farm-building games, it's safe to say that the industry has developed a lot in the past few decades. What may have started as solely a cultural and societal influence has now become economical as well, with 2.2 billion gamers across the globe, which is expected to generate €93,8 billion in game revenues in 2017 alone (McDonald, 2017).

The multibillion figure represents an increase of 7,8% from the previous year. 42% of the market consists of mobile games, which is currently the fastest growing segment with a 19% growth year over year. In 2020, mobile gaming is estimated to represent just over half of the total games market. (McDonald, 2017) This is good news for Finland as mobile games developed by the country represent 7% of the world's entire mobile game industry's turnover (Neogames, 2016).

"Ever since Snake emerged on Nokia handsets, Finland has been at the forefront of the ever-growing world of mobile games and really helped spur the move from mobile

phones being used purely for communication," says Elina Arponen the Head of Chat Games at Palringo and the chairperson of the Finnish Game Developers Association (Mitzer, 2016). Rapid growth has been one of the main characteristics of the Finnish game industry (Neogames, 2016). According to Neogames, the year 2016 however, unlike the previous hyper-growth years, was actually a time of moderate growth and stabilization (Talouselämä, 2017).

Between 2011 and 2014, 179 game studios were established in Finland and 69% of the year 2016's Finnish game studies were less than five years old (Mitzner, 2016). In 2016 the annual turnover growth dropped from 33% to 4%. In addition, only 16 new studios were founded compared to 30 to 55 in the previous years. Year 2016 was also the first year when the number of active Finnish game studios decreased, as 20 closed down leading to a total of 250 active game studios. (Neogames, 2016)

Despite this slowdown of the industry's growth in Finland, the country is still among the top game development countries in the world. The industry is doing great, with 30 studios making over €1 Million in their annual turnover each. Finland also has more mid-sized studios than ever, with 10 studios employing more than 50 employees. This results in a total of 2,750 people employed in the game industry in Finland. (Neogames, 2016) It's easy to see that the game industry has developed a significant role in the Finnish economy in terms of both employment and tax revenue.

"Let's create more stories like that of Supercell's - The IT business is carrying Finland's entire future on its shoulders," commented Rasmus Roiha, the CEO of Ohjelmistoyrittäjät ry, a day after Supercell had announced its 1,1 billion euro business deal (Talouselämä, 2013). But how are such success stories created? Naturally, the success of an individual game company will depend on many things, but most of all on the games it produces. The question of what makes a game good is of course one that has been asked by many developers countless times throughout the creative process of game development. The study of video games has proven to be increasingly complicated however, as Ruggill & McAllister (2011, p.3) point out that the medium finds itself "at the nexus of engineering, mathematics, hermeneutics, logic, kinesthesia, narratology, performativity, art, and many others". While the International Game Developers Association acknowledges that a certain degree of

imitation is totally accepted within the games industry, differentiation and innovation are the favored method of development (Van Roessel, 2014). When certain design goals and resource restrictions also need to be kept in mind, it can be said that the creative process plays an important part in the creation of a game.

Jake Solomon, the creative director of Firaxis Games comments on the reason why a lot of games fail: "You have to take risks, you have to innovate, otherwise you're not offering value and people will find it somewhere else. At the same time, those risks could sink you if you don't fail fast enough and get to the actual right answer, so I think it really is kind of a tightrope." (Butterworth, 2017) Solomon's statement highlights the importance of a creative development process with purposeful problem solving. It begs the question whether the right kind of management of this process could be the key to mastering the development of outstanding games.

1.1. Research Goals

In order to understand how to manage the creative process of game development, the process itself must first be understood. However, when it comes to management styles and creativity, there exists no one-size-fits-all approach. This is why understanding the topic and finding helpful realizations for an adaptable management mindset were chosen as the focus of this study. The purpose was to find out what the most important aspects are when it comes to management in the game industry. This is framed by two sub-research questions, which were created in conjunction with the theoretical framework to help answer the main research question.

The main research question is:
- What aspects are important for managing a team's creative process in game development?

The sub-research questions are:
- What makes a game company's creative process unique?
- How to direct cohesiveness in a creative team?

As convenient as it would be, it cannot be assumed that all game companies and their creative teams should be managed in the same way. With the rapid changes that are happening in the industry, creating a widely applicable creative process model would be redundant and overly ambitious at this stage in the industry. However, some generalizations can certainly be made. The goal of this study was to see which aspects of different existing theories and models could be directly applied to game development. The research is therefore focused on descriptive analysis that is tied to this moment in time.

1.1.1. Research Parameters

Grounded theory was used as the methodological approach for qualitative research. Grounded theory methods consist of systematic, yet flexible guidelines for collecting and analyzing qualitative data, which is then used to construct theories from the data itself (Charmaz, 2014). Existing research and theoretical literature were not ignored in the research process however. This can also be called *informed grounded theory,* where the process is thoroughly grounded in data by GT methods while taking into account existing frameworks (Thornberg, 2014). Dey (1993, p.3) highlights it as "a difference between an open mind and empty head". In addition, researchers always bring their own lenses and conceptual networks into their work (Kelle, 1995, p. 38). Thus, observation of a phenomenon is inevitably shaped by prior knowledge of the phenomenon (Hanson, 1965; Kelle, 1995, 2005, 2007). As such a conscious effort was made to remain objective and open minded, while acknowledging that the basis for the research was unavoidably affected by my own preliminary background knowledge.

The main method of data generation was interviews which were both built and analyzed based on the theoretical framework. The goal for the questions was not to necessarily find correct answers per se, but to help describe experiences in managing the creative process in a tangible way that could then be further analyzed against the gathered theoretical background. A more thorough description of the research and analysis methods used is presented in the third chapter of this thesis.

1.1.2. Research Limitations

This study was restricted to the Finnish game industry only, and only features Finnish game industry professionals. This allowed for a narrower sampling with more unified results, in turn making it easier to draw conclusions within what I expected to be a relatively homogenous Finnish game industry. Interviewees were decided on based on their work experience as leaders and general game-development know-how. The interviewees' companies and professional background are presented with the research data.

The Finnish game industry is very mobile game focused, as demonstrated by the figures presented in the introduction. However, this researched featured a thorough inspection of different kinds of varied platform and cross-platform games, excluding AAA games. *AAA games*, often called "triple A games", is an informal classification which stands for video games created with the highest development budgets and levels of promotion. As such, their creative process is usually longer and more detailed, and it typically involves a much bigger team with a bigger financial risk. While such projects exist in Finland, they are relatively far and wide in between. Because of this, AAA games are only lightly touched upon but are not the main focus of this research.

1.2. Existing Research

The field of games is still a relatively new industry, meaning that it has not yet been extensively studied against a theoretical background. Instead there is a widespread acknowledgement that the industry differs from most other industries in its work environment and way of creating, involving a lax organizational culture and open work hours (Morell, 2012). This is more usual in startups however, as big AAA game companies often differ in this by going the opposite route, overworking their staff to push ambitious goals and deadlines (Rivera, 2014; Williams, 2015). The smaller companies however can seem almost mystifying in their unique, relaxed approach to management which one can find little existing research on. As such, this specific field of study is both completely new and very current as well as relevant to fit the recent growth and development in the industry.

The majority of related studies done on the Finnish game industry are similarly recently made thesis research papers. Most of these studies have been done from an industrial standpoint, such as "The Growth and Internationalization of the Finnish Game Industry" by Metsola & Vesala (2014) and "The Success Factors of The Finnish Mobile Game Industry" by Härmä (2014) or alternatively from a highly technical standpoint.

Kuusinen (2014) has done a study on "The Leadership of Innovativeness in Gaming Industry Startups", which can be said to most closely parallel this research, in that it is studying management in the Finnish games industry. She states that an innovative game company must be agile and its employees should be intrinsically motivated, while highlighting the importance of leadership in both of these factors. In addition, a communicative and open organizational culture, upheld by the manager, is emphasized (Kuusinen, 2014).

Perhaps because of the newness of the industry or the way game companies tend to work creatively - seemingly as an organized chaos - there also exist neither a managerial nor creative process theory directed specifically for game development. In addition, previous research in organizational creativity has often focused on the relationship between individual differences and creative outcomes, while ignoring theory and research which actually indicates that creativity is best understood as a complex process (Nei & Nei, 2015). By ignoring this complexity of the entire creative process, much of the existing research has also ignored that successful execution of creative ideas are often the result of teams rather than just the actions of one individual (Paulus, 2000). In this thesis I however examine this process and how existing prevalent creativity and management theories can be applied to game development, with a team-focused approach. These theories are consequently presented in the framework below.

2. Theoretical Framework

Because of the lack of game development specific theories, it was necessary to refer to theories which have not been crafted with the games industry in mind, yet can still be used to understand it. The goal of building this theoretical framework was to find

varied modules and guidelines and to pick out the best-suited aspects of each one. The theoretical framework was also used as guidance for the interview questions in order to ask the right questions and to dig into the heart of the issue.

2.1. The Creative Process

In order to figure out the most important aspects in managing the creative process of game development, the structure of the process itself must first be understood. While creative processes are integrally emotional, self-reports and empirical research have shown that the sequences of creativity involved are rather predictable (Gnezda, 2011). Therefore, while the process itself may be context-sensitive, it is helpful to understand some basic models. Afterwards, with the help of the interview data, different creative process models were examined from a game development standpoint to see which parts are applicable to it.

There exist two schools of thought regarding creative processes, *idealist* and *action*. Idealist theorists believe that the creative process is finished when an idea is had. The execution and results of the idea are not taken into consideration but instead, the creative work is done once the idea has been fully formed in your head. (Sawyer, 2006)

The more relevant, second school of thought is the action theory. Action theorists argue that, in contrast, the execution of the creative work is essential to the creative process. They highlight that often the result of the creative process differs from that of the original idea, and that most of the creative work actually happens while you're working with your materials. Sometimes when executing your idea, you run into problems that you didn't foresee and the end result ends up being completely unexpected. (Sawyer, 2006) Sawyer (2012) mentions improvisation as the purest example of this. This is however peculiar as improvisation is rarely based on an idea in the first place but can be a way of finding one, perhaps much like brainstorming. Nevertheless, the act of finding and solving unforeseen problems as you move along the creative process is very descriptive of what often happens in game development, as later iterated in the research data, and thus the action theory is much more applicable. In addition, the idealist theory is very philosophical, and has since been

shown to be false by scientific studies, as creativity happens over time and is action-oriented by its nature (Sawyer, 2012).

Most creative process models follow a very similar outline. In this chapter I go over two popular models, Keith Sawyer's (2006) 4-stage creative process model and Min Basadur's (1991) organizational creativity process model, and present complementary theory for both. While the 4-stepped model seems to only refer to a single creator within the context of the process, I believe it is equally applicable to a team setting as having both the ideas and evaluations of many should result in more effective progress. The organizational creative process model is however specifically built for organizational creative behavior as its name suggests. Lastly I go over the closely related design thinking process.

2.1.1. Sawyer's 4-stage Creative Process Model

Sawyer (2006) studied the research done on the creative process by psychologists and found four basic stages that were mostly agreed on to be true: preparation, incubation, insight and verification (Figure 1.).
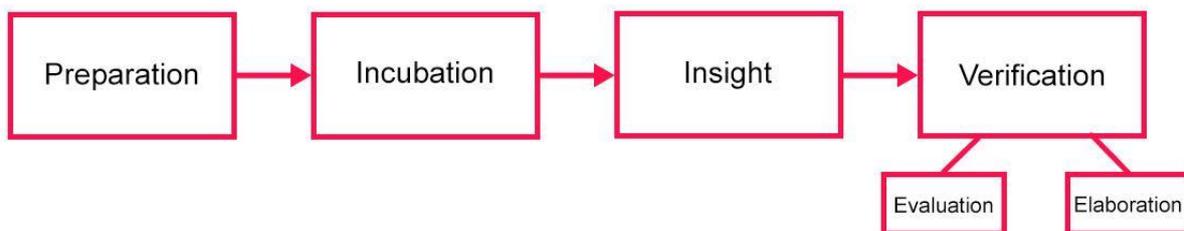
Figure 1. Stages of the Creative Process (Sawyer, 2006)

- *Preparation* is the initial stage of idea creation, where all preliminary work happens. This includes collecting relevant information and doing necessary preparations. This stage includes idea generation such as brainstorming, communicating with others to explore related ideas and suggestions etc.
- *Incubation* is an internal phase where the idea is quite literally left to incubate and ripen. It is a necessary delay between preparation and insight, were the prepared material is mentally organized and refined.
- *Insight* is the subjective experience of having the actual idea, which can also be called a sort "aha" or "eureka" moment.

- *Verification* includes two stages; the evaluation and elaboration of the final idea, which lead to its final form.

When it comes to the preparation stage, Sawyer (2006) highlights the importance of creativity for the sake of idea generation. Creativity can be defined as "*the ability to transcend traditional ideas, rules, patterns, relationships, or the like, and to create meaningful new ideas, forms, methods and interpretations" (Dictionary.com, 2017),* or alternatively as *"the use of imagination or original ideas to create something" (Oxford University Press, 2017)*. In order for proper, original idea generation to happen, thorough learning of what has already been done should take place. This is important in order to become familiar with existing patterns so that one is able to generate a new, creative combination or idea (Sawyer, 2006). After all, creativity involves more than a mere accident and is more than a raw process of bringing something into being but instead requires that what is brought into being meets criteria intrinsic to what it is we are trying to make (Paul & Elder, 2008). It is easy to make a novel game, if its only qualification is to create something that has never been done before. But of course, this is hardly ever the case, as the game idea is worthless unless it also stands to many other criteria, such as playability and fun. In addition to being original and unexpected, a good idea is also appropriate (Sternberg & Lubart, 1991).

As the dual Nobel Prize winner Linus Pauling has famously said: "The best way to get a good idea is to get a lot of ideas" (Crick, 1991). Sawyer (2006) calls this the *productivity theory*: having many ideas and eliminating the bad ones. Many theorists believe brainstorming to be a skill which can be developed. As such, there are things one can do right or wrong when it comes to brainstorming. Kelly (2000) lists that the perfect brainstorm is focused but playful. He states that it is important to number your ideas and get physical by sketching, mind mapping etc., but that it is just as important to not write absolutely everything down, as it can hinder the process. He also highlights, that while brainstorming should never be excluded to experts only, not everyone needs to get their own, organized turn to speak.

The incubation stage of the creative process can be described as the most mystical one, as it is highly intuitive and challenging to define scientifically (Yuan & Shen, 2016; Sawyer, 2016). Nevertheless, empirical testing has demonstrated that

productivity is significantly increased when creative people use nonconscious processing in off-task or incubation periods (Gallate, Wong, Ellwood, Roring & Snyder, 2012). The commonality in this stage is that it usually happens outside of the actual creative work or workplace, often when doing something completely unrelated to the actual project. In an organizational work environment, it would typically mean quite literally letting the idea incubate in one's mind at home overnight, or even longer. However, the incubation time should not be too long nor too short, as although the unconscious thought offers significant advantages over conscious thought (Yang, Chattopadhyay, Zhang & Dahl, 2012); over too short or too long deliberation periods, the creative output of conscious thought surpasses that of unconscious thought (Yuan & Shen, 2016). Alternatively, it is common for those working in a creative field to be working on multiple projects at the same time, which often results in interdisciplinary creative insights between the two projects (Sawyer, 2016).

While the brain process behind an eureka moment is complicated, in its most simplified form it can be described as being the binding between two thoughts, which results in the conscious excited awareness of finding a solution (Thagard, 2012). Sawyer (2016) states that a creative insight is never 100% original, but is made novel because of the way that already existing ideas are put together. The insight is nevertheless something that happens subjectively in the creator's mind and isn't really controllable or malleable as such.

The purpose of a creative process' final stage, verification, is to evaluate whether the idea that has emerged is actually a good one. After all, just because an idea goes through incubation and comes into one's consciousness doesn't mean that it's guaranteed to be worthwhile. This is also why elaboration happens with evaluation, as it is difficult to evaluate whether an idea is good or not without at least partly elaborating it. (Sawyer, 2016) In a business context this step may involve weighing and taking into account things such as financial risks and time restrictions etc., or when it comes to game development, prototyping a game idea.

2.1.2. Basadur's Organizational Creative Process Model

Basadur's (1991) model (Figure 2.) defines organizational creative behaviour as a three stage process of problem finding, problem solving, and solution implementation activity. The process is based on two fundamental concepts: Firstly, it has distinctly different stages as it separates problem finding from problem solving and from solution implementation. The model is very similar to that of Puccio, Murdock & Mance (2007), which they split into parts called clarification (identifying the problem), transformation (developing solutions) and implementation (selecting the best solutions), which essentially stand for the same things.
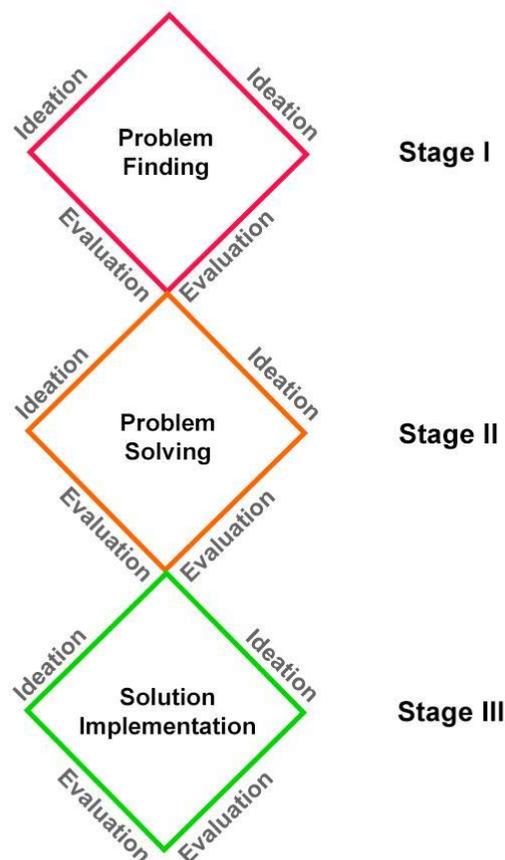
Figure 2. The Creative Process in Organizations (Basadur, 1991)

Between each of Basadur's (1991) process' three stages there is a common mini-process. Basadur calls this "ideation-evaluation". He defines ideation as idea generation without evaluation, which in this case means leaving aside judgement. The evaluation part stands for the opposite of this. Together ideation and evaluation make both the diverging and converging aspects of the two-step process, both which

are believed to be essential to creativity. (Basadur, 1991) As such, intellectual and disciplinary standards do not stand in the way of creativity when they are rightly used, but instead provide a way to begin to generate it — slowly and painfully, by generating insight by tackling one problem at a time (Paul & Elder, 2008).

Sowden and Dawson (2011) examined the effects of mood on both ideation and evaluation. They induced positive, negative and neutral moods on participants who were made to complete ideation and evaluation tasks. Their results showed that a positive mood facilitated ideation whereas a negative mood facilitated evaluation. Participants in a negative mood were more critical of ideas and their usefulness than those who were in a positive mood. This however had a positive impact on the performance of creative problem solving tasks in which the quality was more important than quantity, as the demand for excellence lead to a continued search for optimal solutions. (Sowden & Dawson, 2011) While it's hardly advisable to induce a bad mood on your team for criticism's sake, it is good to understand both the positive and negative effects of it.

2.2. Design Thinking

Originally the notion of design as a "way of thinking" in the sciences can be traced to the book "The sciences of the Artificial" by Herbert Simon in 1969. Design thinking became popularized in the 21st century however, as multiple books about how to create a more design-focused workplace were written. In the management realm it has been so closely related to practice that some researchers say that is has no theoretical body, as was frequently commented at the 2011 Cambridge Design Management Conference. In general, the management design thinking discourse is less thoughtful and robust than the more designer focused, so-called designerly thinking discourse, which has been argued and reflected on by scholars for much longer. Thus, design thinking is a much younger practice, but it has grown rapidly after the millennium. (Johansson-Sköldberg, Woodilla & Çetinkaya, 2014)

The popularity of design thinking has to be understood from an innovation perspective, as the concept captures both the design practice and the way designers make sense of their task, as well as being a way of thinking or source of inspiration

even non-designers can make use of (Johansson & Woodilla, 2009). These various ways of working with design in the management area can be said to make design thinking a necessary skill for practicing managers especially in approaching indeterminate organizational problems (Dunne & Martin, 2006; Martin, 2009). Alternatively, design thinking can be thought of as part of management theory, in terms of being cognitive characteristics of a manager rather than a way of working (Boland & Collopy, 2004), although some authors later comment that for best results designers should lead the process (Leidtka & Ogilvie, 2012).

2.2.1. Design Thinking Process

While it can't be traced to a single author, nowadays design thinking has been familiarized as a 5-step process (Figure 3.) that can be best thought of as a system of overlapping spaces rather than a sequence of orderly steps (Brown, 2009). Its stages imply that the design thinking process quite literally focuses on the design behind a product (or service) in regards to customer satisfaction, and the necessary phases to finding the appropriate solutions. In other words, the tool focuses on the aspects of learning what the customer, in this case the gamer, would enjoy and figuring out a way to create exactly that.
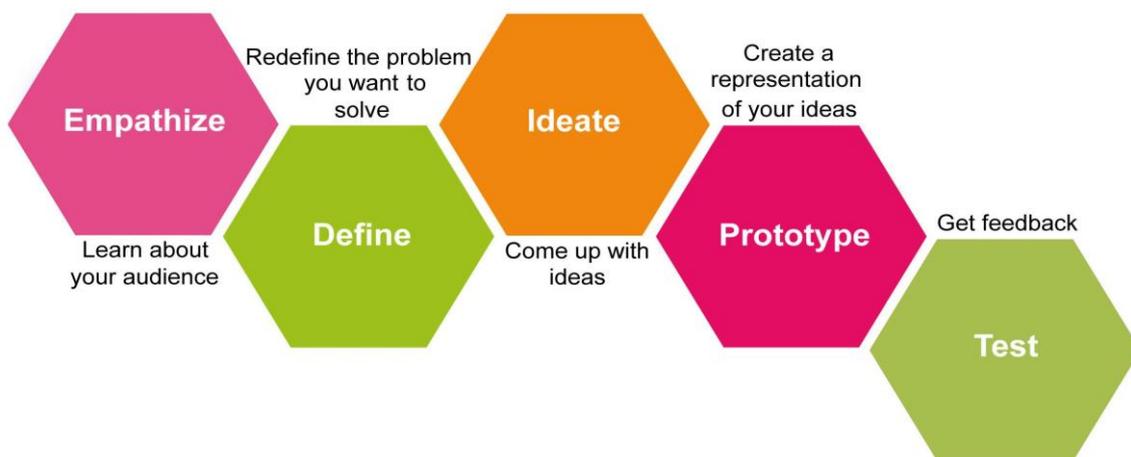

Figure 3. Design Thinking Process (Stanford University, 2010)

- *Empathize* stands for exactly that; empathizing with your customer. Ways of doing this are to observe, engage, watch and listen.

- The *Defining* stage is about bringing clarity to the problem and redefining it in a way that is solvable.
- *Ideation* is about brainstorming and generating as many ideas as possible.
- *Prototyping* should be used as a tool to elaborate and evaluate your idea in order to ideate and problem solve even further.
- *Testing* is all about getting raw feedback for your idea by showing, not telling, to experience how it fairs in practice.

The empathizing stage separates the design thinking process from the previously presented creative process models, in that it is so closely linked to the customer. While understanding the customer's needs is naturally important to any businesses' problem finding and solving, by having it as the first step, the design thinking process highlights it as the foundation in which all other creative work is to be based on. This way of thinking can be said to resemble the modern customer-centered marketing mindset. Or alternatively the basis of most business models (Zott, Amit & Massa, 2011).

In the context of game development, empathizing with the customer naturally means understanding the target segment's gamers' needs and wants. When creating a PC game, essentially the possible target segment starts out as being "anyone who owns a PC", but this quickly narrows down to a smaller segment once design decisions in theme and gameplay style are made (eg. scifi, fantasy, strategy, etc.). Sadly many games fail because the developers get too carried away by their creativity and disregard their target segment, when at the end of the day it should be the customer who has the most fun, not the developer (Shelley, 2001).

When moving from empathizing to defining, it is important to understand the big picture, and focus on forming understandable and solvable problems. A right kind of problem should be clear, but broad enough to inspire your team and allow for creative thinking (Dam & Siang, 2017). This leads us to ideation i.e. brainstorming. Kelly (2000) states that the fastest way to kill a brainstormer is to have the boss speak and set parameters first. After all, immediately setting demands for ideas that make them worth sharing is sure to make everyone doubt their own. This makes for a delicate balance between focused yet open minded problem finding and solving.

In game development, playtesting the prototype plays a very important role in creating a successful game. Shelley (2001) calls this "designing by playing". The faster you create and find mistakes, the sooner you can solve them. As such, prototyping can be one form of ideation as well. While prototyping and testing can be intertwined, one shouldn't assume that a raw prototype can always be simply put in front of a user for testing. Beta testing can work as an important tool for a game development company. It can be a crucial process for providing large amounts of useful information if managed properly, but can be an utter waste of time or even hurt the company's reputation if handled poorly (Fine, 2002).

2.3. Problem Finding vs. Problem Solving

Most creative process theorists bring attention to the importance of not only problem solving but to problem finding especially. This is most apparent in the organization's creative process model's problem finding stage, which Basadur (1991) further splits into (1) discovering problems to solve and (2) formulating them for consequent solution. After all, unless the problem can be made solvable, it won't bring the team forwards. In other words, it is often more important to ask the right questions than to seek the correct solutions, and it's something that creativity should be equally applied to (Sawyer, 2006).

Design thinking on the other hand, can be seen as a problem-solving activity in itself (Johansson-Sköldberg, Woodilla & Çetinkaya, 2014). However, instead of the accepted step-by-step model of the design process with its two distinct phases: an analytic step of problem definition, followed by a synthetic sequence of problem solution, in design thinking the problem formulation and solution go hand in hand rather than as sequential steps (Buchanan, 1992). This process perspective is concerned with gaining a deeper understanding of design thinking in an increasingly complex technological culture, in order for there to be communication among all the participants engaged in the process of design.

2. 4. Managerial Theories

Gaming companies are typically defined by their creativity and informal work environment, which isn't restricted by outdated bureaucratic or hierarchical theories or management styles (Morell, 2012; Lappalainen, 2012). In other words, the humorous yet descriptive term for typical Finnish business management, "management by perkele", isn't something that's commonly seen or warranted in the game industry. In fact, Roininen (2013) studied the quality of life in the Finnish game industry, and concluded that the lack of management or management skills is a common problem. As such, the focus in this thesis was directed towards more team-oriented management theories such as *Management by Walking Around* and *Situational Leadership* by Blanchard and Hershey (1977).

2. 4. 1. Management by Walking Around

It would be slightly misleading to describe Management by Walking Around as a management tool, as its very essence lies in unplanned and unstructured impromptu management. It's the epitome of a "not really trying" management style, that includes building rapport between employees and gathering information by quite literally just walking around the office and hanging out. At its core however, the goal of MBWA is to regularly find unidentified problems by observing the work environment and its employees. (Hindle, 2008; Peters, 1989)

Hindle (2008) writes that one of the main benefits of MBWA was recognized by management consultant W. Edwards Deming, who wrote: *"If you wait for people to come to you, you'll only get small problems. You must go and find them. The big problems are where people don't realize they have one in the first place."* MBWA is sometimes described as having the difficulty of suspicious employees, who can feel that the manager is simply using walking and talking around as an excuse to spy on them and interfere unnecessarily. This is one of the reasons why the key to successful MBWA is to do walkabouts so regularly that the suspicion is short-lived. Ideally, the communication goes both ways and both the manager and the employees learn about both new problems and methods of solving them, allowing for everyone to see the benefits. (Hindle, 2008)

Peters (1989) listed three things that should be going on when a manager practices MBWA:

- Listening to what people are saying
- Using the opportunity to convey the company's values face to face to employees
- Being prepared and able to advise and help employees on the spot

2. 4. 3. Situational Leadership

Paul Hersey and Ken Blanchard developed The Situational Leadership Model during the mid-1970s. The main principle of their theory is that there is no single best leadership method, but that the preferred management style is always situational and task-relevant. They argue that the best managers are those who are effective, by being able to flexibly switch from different leadership behaviors depending on what is most called for, and adapt according to the situation. Hersey and Blanchard listed four different, situational leadership styles as follows:
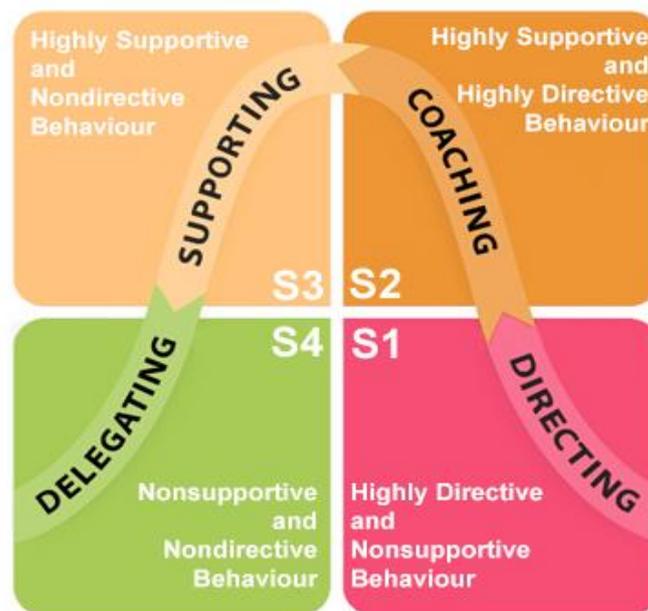
Figure 4. Situational Leadership Model (Hersey, Blanchard & Natemeyer, 1979; Blanchard, Zigarmi & Nelson, 1993)

- *S1: Directing* – is a high-task/low-relationship leader behaviour, that is characterized by one-way communication in which the leader defines the roles for the workers, telling them exactly what, how, when and where to do various tasks.

- *S2: Coaching* – is a directive, high-task/high-relationship leadership style, like telling, but with two-way communication and socio-emotional support, to get the workers to psychologically "buy into" decisions that have to be made.
- *S3: Supporting* – is high-relationship/low-task behaviour, because in this style the leader join in decision making with the followers through two-way communication, with highly facilitating behaviour from the leader.
- *S4: Delegating* – is low-supportive and low-directive leader behaviour, which leans on the followers taking responsibility and action by directing their own behaviour.

The situational approach of the model is mainly based on the type of subordinates the leader is working with. The theory argues that a combination of high-task-low-relationship combination of leader behaviors is appropriate when the employees are highly immature (Graeff, 1983). This is because too high relationship behaviour in a situation like this is likely to result in the subordinates "taking advantage of a permissive leader" (Hersey & Blanchard, 1977, pp. 170-171).

Naturally, on the other end of the spectrum, with mature and independent employees, the model suggests using low-task behaviour. The supportiveness of the manager's behaviour should depend on the motivation of the subordinates. The model advocates that low motivation should be met with a stronger leadership style, while highly motivated workers can be lead in a more relaxed manner. It's a delicate balance however, as aggressive leadership can also be the cause of lowered motivation, in which case enforcing it further would naturally give even worse results. (Graeff, 1983)

In an interview by Schermerhorn (1997), Hersey insists that situational leadership is above all a model and not a theory, because it can be replicated and used in real life in a variety of settings. However, despite the easy-to-understand appeal of the model, several studies have shown it to be surprisingly unrealistic in real-life use (Fernandez & Vecchio, 1997; Vecchio, 1987). In a study conducted by Vecchio (1987), it was shown that newly hired staff performed better when they were directed with highly structured leadership styles. However, the same study suggested that experienced staff would perform exactly the same, no matter what situational

leadership style their superiors exhibit. In essence Vecchio's findings thus suggest that while a S1 leadership style is appropriate when matched with immature subordinates, it's unclear whether the rest of the styles are applicable with mature employees. Similar results were repeated by a later study done by Fernandez and Vecchio (1997).

2. 5. Team Theory

The common saying "*team work makes the dream work*" by John Maxwell (2002) holds especially true for the game industry, as later emphasized by the interviewees. Since game development projects are typically team-based, I examined Tuckman's team development theory to complement the managerial approach. The end of Maxwell's quote, "*but a vision becomes a nightmare when the leader has a big dream and a bad team*", highlights the worst-case scenario - something a well-informed manager is ideally able to prevent by focusing on the right things at the different stages of team behaviour.

2.5.1. Tuckman's Group Development Model

Tuckman's (1965) group development model is widely known as a basis for effective team building (Figure 4.) Its stages are divided into *forming, storming, norming* and *performing* with sometimes the added final step of *adjourning/reforming,* which Tuckman developed later on with Jensen in 1977 (Abudi, 2016). The model illustrates that it's normal for teams to go through different stages as they develop. The key of the model is to understand its different stages and how humans act in team building situations, which in turn aims to help manage the process for both effective results and maximized employee happiness.

Figure 5. Tuckman's Stages of Team Development (Tuckman, 1977)

- In the *forming* stage, the team members will begin trying to get a feel for each other, but will usually act positive and polite. Since the phase can be lacking in structure and not everyone has fully understood what work the team will do, some may be anxious or excited about the task ahead. Because the roles and responsibilities of the team members are not yet clear, the leader should be active and plays a dominant role in this stage. This stage can last for some time as people begin working together and make an effort to get to know their colleagues.

- In the *storming* stage people start to push against the boundaries established in the forming stage. It often begins when there is a conflict between team members' natural working styles. Unforeseen problems in working style differences may lead to things such as communication issues, which quickly become frustrating. Storming can also happen in situations where team members may challenge other members' or the leader's authority, or feel overwhelmed by their workload, or uncomfortable with the approach used by the leader. The teams goals may also be questioned at this stage, while making team members who choose to stick with the task experience additional stress when the feel unsupported by their colleagues.

- Moving into the *norming* stage happens gradually. It's a more positive stage where people begin to resolve their differences and even appreciate them as well as the leader's authority. As the team members get to know each other better, they begin communicating more and giving each other constructive feedback. As a result they form a stronger commitment to the team goal and faster progress starts happening. The overlap between storming and norming can sometimes be lengthy, since as new tasks come up the team may move back and forth.

- The *performing* stage, like the name suggests, is about moving towards the achievement of the team's goal. The way this is done depends on the structures and processes dictated by the leader earlier. The manager can delegate much of the work at this stage, so they can concentrate on developing the team's members. Being part of the team should be easy at this point, and people who join or leave don't disrupt performance.

- A*djourning/reforming* is the final stage which most but not all teams will eventually reach. While project teams exist for only a fixed period, even

permanent teams may be disbanded through organizational restructuring. Team members who enjoy routine or have developed close working relations with their colleagues may find this stage difficult. As such, this stage is sometimes also called *mourning.*

<div align="right">(Tuckman, 1965; Tuckman & Jensen, 1977)</div>

Tuckman and Jensen followed up on their theory in 2010 by gathering various different empirical studies that had been done about their model, as well as comparing other group development research with theirs. Most of the other studies agreed on there being a group development phases similar to those suggested by Tuckman, even if they were differently named (Zurcher, 1969; Shambaugh & Kanter, 1969; Braaten 1975), or missing a so called performing stage (Yalom, 1970; Lacoursiere).

Rickards and Moger (2000) found alternative views to the Tuckman-Jensen model, by exploring the team dynamics of creative project teams specifically. They were concerned with what a leader should do if the storming stage never ends and what was needed to exceed performance norms instead of regressing to an earlier stage of development. They presented multiple team factors which creative leadership can and ideally should impact. Their prediction was that team performance and creative leadership contributions are strongly associated with performance on the team factors. Teams that behave exceptionally seemed to have developed enhanced skills in dealing with factors such as team climate, ownership of ideas, shared goals and resilience to setbacks. (Rickards & Moger, 2000)

Tuckman's theory has been criticized for being too limiting (Maples, 1988). However, various authors agree that in general, some sort of team development definitely does happen (Braaten, 1975; Tuckman & Jensen, 1977). In addition, despite the fact that many have argued that group development stage models don't take enough into account, Tuckman's model has remained popular and wide in use (Thorpe, 2010).

3. Research Method

A total of four people were interviewed from four different game companies for this thesis. Personal examples were brought up from the companies in question, however in general the interview answers were derived from a diverse working experience throughout multiple companies for each interviewee. Each interviewed person has acted as a leader in diverse ways and has experience from different kinds of game projects. The interviewees and their professional background are presented in Table 1.

Table 1. Interviewee introductions (Supercell, 2017; Unity, 2017; Housemarque, 2017; Kuuasema, 2017)

Company	Interviewee	Company Background	Personal Background
Supercell	Timur Haussila	Supercell is a mobile game developer that has brought four games to the market since its founding in 2010 - Hay Day, Clash of Clans, Boom Beach and Clash Royale. The games focus free-to-play mechanics that yield profits through the in-game micropayments. The company's staff of 180 is relatively small compared to its turnover of 2 109m. € (Pietarila, 2016).	Haussila graduated with a business degree and has since worked as a product manager for multiple games in different companies. Presently he is the product lead at Supercell, and has been responsible for concept creation, production and service development of the popular game Hay Day.
Unity Technologies	Sonja Ängeslevä	Unity is a game development platform that plays an important part in the global games market. More games are made with Unity than with any other game technology. The	Ängeslevä has a wide management experience in games from working as a product manager, director and vice president. She has also worked in multiple

		company has around 56 employees in Finland and a turnover of 117m. € (Kauppalehti, 2015).	positions of trust, as a board and jury member, organizer and president in many different organizations.
Housemarque	Sami Hakala	Housemarque is one of the most experienced and well-known developers of downloadable games, for both PC and console, with a successful track record spanning over 20 years. Housemarque employs around 56 people and has a turnover of 4, 2. m. € (Lappalainen, 2015).	Hakala has worked fulltime in the games industry for about 9 years. Before that, he gathered ample production experience from different industries. Hakala is the producer behind popular games such as Resogun, Alienation, Nex Machina, Matterfall.
Kuuasema	Henna Tuunainen	Kuuasema is an agile cross-platform game development studio that creates games directly to their clients' specifications. Their staff is the size of about 29 people, and their recent turnover was 1, 5. m. € (Kauppalehti, 2016).	Tuunainen works as an associate producer at Kuuasema. Before that she has worked as a game designer and consultant in different companies and is specialized in user experience.

The were held and recorded face to face, then transcribed from Finnish to English on a later date. The questions were formulated to be open-ended, in order to allow for discursive and descriptive replies. The questions were thus framed to cover a wide enough background, yet narrow enough to find answers to interviewees' specific experiences. In order to also answer to the research questions, the questions were grounded in the previously studied and presented theory.

Four separate interviews were conducted – one for each interviewee at their own office, in a private space and a relaxed manner. The order of the questions alternated according to the flow of the conversation, which occasionally led to new, unplanned questions. Charmaz (2014) calls this intensive interviewing, which in short is an emergent technique that combines flexibility and control and opens interactional space for ideas and issues to arise. This method generated additional discussion and helped reach more comprehensive understanding of the topic. The primary interview questions can be found as an attachment at the end of this thesis.

The interviews lasted approximately 45 minutes on average and were held in Finnish, then later transcribed to English. The transcribed results where then examined and stripped down to a manageable length to only contain information that answered to the research questions. To analyze the remaining quotes, they were first coded according to topics that were explored in the theoretical framework; The Creative Process, Managing and Teams. The results of this are presented in the following chapter. Afterwards, true to analysis conducted via informed grounded theory, commonalities and differences within the data were sought and further analyzed against the previously examined framework. This analysis is presented in chapter five.

4. Interview Results

Overall, the interview data was very unanimous aside from differing company specific practices, but even they seemed to rely on the same principles. The results are presented in the order of the corresponding theories presented in the framework. Within this order, the results are further categorized into prevalent themes such as ideation, to help comprehensibly describe the subject.

4.1. The Creative Process of Game Development

The interviewees were asked questions to define what the creative process of game development usually looked like to them. The general consensus was that while it was preferable to have at least some structural plan for what needs to be done, the creative process doesn't really have specific ordered steps that would be followed each time. In addition, even if there were recurring stages, it was agreed that it was

common to sometimes move back and forth between stages, or skip and jump from one to another.

"It's structured and organized but there needs to be room for the unstructured and unorganized. We need to jump from stage to stage sometimes." – Haussila

When asked whether he found the creative process of game development to be organized and structured or unorganized and unstructured, Hakala brought forth a comparison to a band's jamming session, where improvised ideas merge with one another while something is being created together. In other words, he wouldn't call it unorganized per se because "*even though it can be hectic, in the end we're all professionals; specialists who respond to each other and are moving towards a common goal*".

Tuunainen on the other hand states, that although she feels that the process can typically be unorganized, she always aims to keep a certain order to it: *"I have a specific plan for how we will progress that the others don't necessarily know about. That's how I control the entire process: quite sneakily, because the team doesn't really enjoy processes or that sort of bureaucratic things."* Ängelsevä also comments that although it's not the rest of the team's job to uphold the entire big picture, it's important for them to understand what the shared vision is.

The importance of a shared vision among the entire team is stressed by all the interviewees, with particular focus on the "why" of the project. Hakala states that communicating the shared vision since the beginning and then upkeeping it for the entire project is a common challenge in the creative process: "*It's not difficult but it takes time and you should put a lot of effort into it.*" Ängeslevä iterates this by saying that she sometimes finds herself accidentally repeating things over and over to make sure that the necessary principles are made clear to the entire team. Tuunainen comments that documentation and information architecture is something that a lot of gaming companies, especially newer ones, struggle with: *"Sometimes the creative process is too visual and technical, which makes people forget the structure behind the process, and the focus on the user/player gets lost along the way."* Haussila echoes that instead of simply setting milestones, it's important to understand why

those milestones are in place and what questions they aim to answer, other than to just progress in development.

"I've worked in a 3-man game development team that was like an ameba that was rather unstructured in its process. It's very difficult to make sense of the goals if the entire process is a jumbled mess." – Ängeslevä

In general, all interviewees found that a well-planned project with added structure was helpful, but not always realistic within the game development process. Haussila explains this by saying that after all, in the end it is a *creative* process; meaning that new goals can pop up mid-process in addition to the agreed milestones. In a sense, the process could almost be described as having a life of its own, because it has a tendency to change so much along the way. Ängeslevä narrated on once having created a game that changed drastically in its visual style during its development, but at the very end when the team observed some of the old designs they had made, they realized that they had come a full circle.

All interviewees emphasize the bringing of clarity to the otherwise potentially messy process. The importance of setting specific roles, as well as goals and milestones and writing them down is stressed. Hakala mentions that the further a project progresses, the more necessary an organized process becomes. Tuunainen further states that simply going by verbal communication can cause problems long-term, even if the problem starts in the very beginning of the process. *"At worst you might forget something really obvious and end up pushing the release date of a product by several weeks, something that could've been avoided with a simple checklist,"* she describes.

"People are starting to understand that a business oriented process is necessary to get things done within the shape and time it needs to be done in." – Ängeslevä

4.1.1. Tools and models

When it comes to using specific managerial or creativity tools and models to make better sense of the game development project, all interviewees comment on "not really" using any. Despite this, most express interest in management-related

literature, although Ängeslevä comments that while experience is helpful, being able to admit your mistakes and learning from them is more important - something that even inexperienced leaders can aim to live by. Haussila and Ängeslevä remind that the more the leader knows about everything regarding the process, the easier it is for them to lead it. Hakala points out that even experience that has nothing to do with the game industry can bring surprisingly much ideas and vision into a project.

Both Haussila and Ängeslevä do mention having used a program called "Scrum" - a software development framework that describes itself as "a management and control process that cuts through complexity to focus on building products that meet business needs" (Scrum.org, 2017), which Ängeslevä comments on being helpful for deploying the desired vision among team members.

Ängeslevä explains that the shared game design principles need to be made clear to everyone in the team, but there can't be too many so the focus remains clear. For the deployment of this vision, she states Scrum to be helpful on its own or in combination with other agile methods for software development, such as the "Kanban method", which is characterized by the use of a sort of billboard to organize tasks. Hakala also highlighted Housemarque's use of a large office whiteboard for task organization, where need-to-do tasks would be stuck as post-it notes, which could then be picked up to be worked on by any group or team member. Afterwards the note would be moved to another section according to its level of completion until eventually that aspect of the game would be finished. This way the entire team could see all the tasks that needed to be done at any given time and how much work had been done to complete them.

4.1.2. Ideation

When it comes to idea generation, all four leaders unanimously agree that rather than having too few there are typically too many ideas to choose from. Haussila comments on there never being a lack of ideas on what kind of games could be created or mechanics that could be tested: *"The challenge is to focus on the right things and to get people excited about the same things at the same time."* Because of the sheer amount of ideas, Hakala states that around 80% of them should be turned down. While Ängeslevä finds that inexperience can be beneficial in bringing fresh ideas to

the table, Haussila on the contrary comments that the quality of the ideas varies a lot depending on experience, and that the warranted open-mindedness depends on the proficiency of the team: *"If you have an inexperienced team you should be more critical of ideas, but with the people I tend to work with the ideas are quite highly refined by the time they're presented." - Haussila*

In regards to choosing between different ideas, all interviewees describe their preference to be all-inclusive, but that there also needs to be someone who has the final say, which quite often is the creative director or lead designer. Haussila describes it as an organic process, and says that there should always be someone who facilitates the conversation, because it's often based on emotions, meaning that all opinions and voices should be heard and respected. Tuunainen mentions that having supportive data to back up an idea suggestion can also be a factor in decision-making. She also finds it important to guide the conversation in a way that no idea is ever just left hanging undecided, even if the final decision is to simply drop it. Ängeslevä comments that even if you decide something, you can always go back, although removing bad ideas from a game is often more difficult than coming up with new ones, but sometimes it needs to be done.

"Sometimes you just have to admit that it's impossible to know for sure [what the best idea is] *and you need to go with a gut feeling. Preferably it's not me alone who validates ideas. And equally if someone hates it, we try to find a way around it, because that naturally affects motivation if someone doesn't see a point to creating the game." - Ängeslevä*

While brainstorming is a method used selectively in each company, the way it's used isn't the same in each one. While Housemarque uses brainstorming as a tool to generate ideas and then forms teams around them, Supercell tends to build its teams first, then brainstorms within those teams. But since Kuuasema on the other hand is a work-for-hire company, meaning they get very specific specifications from their clients, brainstorming typically happens after a customer segment has been chosen to generate specific ideas for a specific client.

"Before we even start the project, we map out the competition and ideate after that. But sometimes it's easy to forget the mapping." - Tuunainen

The customer is however rarely the main focus of the creative process. Unlike Kuuasema, which focuses heavily on the customer aspect from the very beginning of its game project, most company games begin with either a team or a creative idea and don't start thinking about the potential user until later in the development. Hakala comments that while Housemarque mainly makes games for themselves (i.e. people similar to those working for the company), they need to clearly define the customer segment early on so they can pitch their ideas to investors. Haussila says that at Supercell, first an idea is thought of and then they start wondering who they're creating it for, but that admittedly the team doesn't really "think about it that much" and that while the potential customer segment is in the back of their mind, they "don't really make it into a huge deal" and adds: *"Having a global customer base makes it difficult to specify sometimes, because the player could be a 15-year-old boy living in rural China or a 50-year-old American housewife."*

Ängeslevä highlights that it's important for herself to understand that she'll not always be part of the target audience that the game is being created for: *"Sometimes I might be creating a game thinking 'No way anyone is going to play a game like this', just because I never would. But that doesn't mean you shouldn't commit to the idea, because there will still be that customer segment out there that's feverishly waiting for that next pet training game."*

4.1.3. The effect of project type

The effect that the game project type has on the creative process is brought up several times. The consensus was that aspects like scale, platform, budget and dependency of third-parties like publishers and investors will make a big difference in the length and management of a project. Haussila states that the platform you're working for "sets the foundation for possibilities". He specifies that a mobile game development team will typically be smaller in size and have better access to the market, which means that it'll need a more agile team, whereas console studios have a much stricter organizational structure with less flexibility. This ability to change direction that AAA game projects don't have is iterated by Ängeslevä, who says:

"Some game companies take so long making their AAA games because they keep going back to change and redo things. And in the scope of 6 years technology can change a lot too [potentially making a lot of completed work futile]*."*

Ängeslevä comments that a web-based game will usually take 1-2 years to develop, and will have 5-15 people in a team, which is much less than 50 - a small team for console production. Haussila complements this by saying: *"When the projects grow bigger, you need more staff and sometimes it can feel like there's never enough people, no matter what the company size"*. However, to remain agile he states that Supercell tries not to hire too many employees.

"PC/console game creation is much more complex because the games are more complex and the teams are bigger. You can't just do things by a gut feeling without any process tools." – Tuunainen

Naturally, when the scale and nature of the project affects the length of it, it also makes a difference in how long it takes to move from idea generation to idea execution. All four leaders support the assessment that the phase between ideation and execution depends on the company. In mobile and web game development it can last for less than a day, as Haussila and Tuunainen comment that they sometimes start working on a game prototype immediately after having an idea. Hakala further confirms, that the bigger the game, the longer the gap between idea generation and execution. Ängeslevä says that based on her experience, the phase consists of ideating, choosing between ideas, then ideating on top of that, and will usually last around one week; *"So we get feedback* [on the chosen idea] *and then we try to figure out how it can be made into an actual game."*

4.2. Managing in Game Development

In the very beginning of the interviews, each interviewee was asked to describe themselves as a leader. Particularly recurring words that came up were "enabler" and "fair", i.e. holding others and themselves to the same regard. Hakala says *"Employees and teams are given a lot of power in choosing their processes and daily tasks. So the producer doesn't have to organize the work but enable it."* The freedom

given to the workers is demonstrated in the aforementioned Kanban style task board used at Housemarque, from which anyone can pick and choose their tasks. Ängelsevä simply states: "*Giving freedom provides more quality and better ideas*".

Making the teams independent is emphasized by each leader. "*Every producer and team decides by themselves how they prefer to work,*" says Tuunainen. Haussila also comments that while it's dependent on the team, he usually lets people do their own thing. "*People know that's the way I like to operate and that's how they like it as well. We talk about the vision together and then I let people choose their own tasks and ask for feedback when they feel they need it,*" he describes and adds: "*In a sense, every team member is a leader - it's the opposite of a hierarchical pyramid. The coders and artists and designers work as the leaders, because they lead with their work and example… My job as their leader is to enable it and give them space to lead.*"

When it comes to participation and ideation, the leaders seem adamant to keep at least bit of a distance. Hakala comments: "*I try to direct the team to hit the deadlines. My job isn't to work on the game's details, but of course I still have ideas,*" adding that he tries to filter at least 80% of his ideas before bringing them forth. Tuunainen mentions that because of her background in design, she really enjoys taking part in the creative process, but feels that it's more for occasional personal enjoyment, and it's important to remain impartial and not take sides: "*I don't do it if the team doesn't get anything out of it. I should never try to cross over other people.*"

Ängeslevä elaborates on the importance of giving space: "*No matter how versatile and visionary of a leader you are there will still always be things you can't understand, because your perception is limited by your personal background and experience.*" The general consensus among all interviewees is that setting direction is an important part of the job, but you also need to allow others take part and lead themselves.

4.2.1. Enhancing creativity and quality

While the way the interviewees describe that the game development process should be managed seems to indicate that it's imperative not to try and do too much, there

equally seems to exist a preferable way to do things when it comes to getting the most out of your team, as well as few additional tricks and methods that can be useful to practice.

Each interviewee present their own suggestions for best harnessing a team's creativity and keeping everyone inspired. Hakala illustrates that unlike in a factory, there should be clearly defined working times with enough allowed free time, so that people don't have to move from task to task. Haussila states that he prefers to speak of games as a story and as entertainment instead of focusing on the mechanics: "Games are about emotions," he continues. Ängeslevä comments that when it comes to her she is inspired by external sources that may not even relate directly to game design: *"I try to activate my own thinking in a wider scope. Especially experimental things that might not give direct ideas but it can widen your thinking and help you realize how things can be done."* Tuunainen on the other hand highlights the importance of remembering that in the end, we're all individuals with our own personalities, and that everyone will have their own preferences. She points out that when it comes to motivating people, *"sometimes small, simple things can make a difference, like whether you go out for company lunch right before or after the monthly check."*

In addition, making people feel safe to express their ideas is a big part of hearing them, as Tuunainen verifies: "*Sometimes ideas get shut down too quickly which means that some ideas are never heard because people are too afraid to present them."* Hakala and Ängeslevä further describe that the organizational environment should allow for anyone to voice their ideas and feel confident about it. Hakala emphasizes the importance of trust as the foundation for this, and proper communication as a way to build it.

The importance of communication is a reappearing proclamation. Like Hakala, Haussila also refers to the old-fashioned factory work model as an example of how things shouldn't be done: "*Someone who was working as a driller for example didn't need to know about anything else that was going on in the company, but in a more complex environment like that of game development, everybody needs to know the vision and what they're doing and why.*" Ängeslevä also describes that in order to let

people just do their own thing, it's crucial to first make sure they have a clear understanding of what is being aimed for and how success is measured. Hakala underlines that proper communication always happens face to face; "*not over emails or 'Slack'* [an online team communication tool]," but doesn't disregard the importance of design documents and power points in making sure that the team sticks to the vision. He advises that routinely defining the project objective is valuable: "*We iterate and specify the vision every two weeks or so, or even weekly."*

Getting and keeping the entire team on board with an idea is imperative, so making sure everyone is feeling good about their work is important. Ängeslevä brings into attention that everyone will have their own way of looking at the project, and adds that "*if one person feels like the vision we're creating has certain problems, it's very critical to the game."* She points out that no matter how good a leader's vision is, they can never see everything in the entire scope of the project on their own, and thus it's important to talk to people. Tuunainen echoes this by saying that she aims to discuss with people regularly about how they're feeling, but often privately *"because people don't always feel comfortable telling it when others are present." H*aussila mentions that at Supercell, their office layout is arranged in an open way that allows everyone to easily see each other and talk with each other: "If I see something interesting, I'll walk over to them."

4.3. The Importance of Teams

Each interviewee proclaimed that one of the most important aspects of the creative process and the key to developing a good game lies within the team. Hakala moreover states that ideally, you don't have to inspire your team because it's built in a way that the team members will inspire themselves. As such, the importance of building the right kind of team becomes vital:

"You can't lead a bad team to success no matter how good of a leader you are. But you can lead a good team badly". – Haussila

"The way the creative process works and whether it will at all depends on if the team is well built and consists of the right people who work well together. It only takes one person to ruin a project." - Tuunainen

Tuunainen mentions that a common problem that can happen is not defining people's roles and responsibilities well enough early on, which can lead to arguments further down the creative process. She explains that when there are problems within the team, the leader needs to be know how to intervene and have the tools to do so. "I'm still learning how to do it myself," she comments. She points out that managing the creative process is quite the leadership of feelings at times: *"Some bring their emotions to work more than others. It was quite shocking at first,"* Tuunainen elaborates and finishes with "*It's about leading people, not things.*"

4.3.1 Cohesion Within a Team

As the importance of synchronizing people and getting them to move in the same direction became so apparent throughout the interviews, the question of how to direct cohesion within a team was asked in conjunction. All four leaders were unanimous that in order to achieve a cohesive creative vision within a team, it was always better to lead people as a team instead of individually. "*The vision should be created together too, if only one person does then it's not shared*," says Haussila. Ängeslevä stresses that the managing of the creative process should be as inclusive as possible: "*Everyone needs to feel equal and able to contribute to the end result, rather than feeling like they're just 'doing', while one person decides everything.*" Regardless, Ängeslevä doesn't disregard the value of personal relations: "*Everything works better if you have a personal relationship with everyone and shared trust.*"

5. Analysis

Because of the unanimity of the interviewees, analyzing the results was a rather straightforward task. The analysis is presented by first aiming to answer the sub-research questions and then examining the most important aspects when it comes to managing a team's creative process in game development.

5.1. The Creative Process in Game Companies

While the interviewees accentuated the importance of structure and clarity in the creative process, it quickly became apparent that no specific process model was used in any company, and it wouldn't be realistic either. This is because game development is inherently a dynamic process with a lot of moving parts, where the direction can change quickly and even drastically at times. In addition, the process is fueled by a motivated team, which means that it's crucial for its members to feel inspired. This means that people should be able to work on what they feel most energized towards - instead of moving from task to task, as said by Hakala. In other words, game development can't always be a linear process.

However, while the creative process of game companies may not have planned steps, it can still be said to contain at least some of the elements presented in Sawyer's (2006) model, even if they are not in any way enforced – although both Ängeslevä and Hakala seem to imply that there are benefits to having an incubation phase between idea generation and execution. The prevalence of the stage differs from project to project however, as the time it takes to move from idea generation to execution is highly situational. It's difficult to say where for example prototyping fits in Sawyer's model, since it can be used as a tool to try out and both elaborate and verify ideas, as well as gain new ones.

Applying Basadur's (1991) creative process model is challenging, since the steps of problem finding, solving and solution implementation are difficult to pinpoint within the game development process. In reality, steps like these seem more organic and vague within the game company context. Then again, while a laid-back leadership style is advised, the leaders interviewed seem to believe in actively taking care of the team members and the process. So in a sense, they can be seen as going looking around to find problems to solve at times. However, the steps are less defined in the scope of the entire team's process and not really recognized as such.

The concepts of both ideation and evaluation are very prevalent in the game development process however, and knowing how to get the most out of both can be an important asset in a creative team's leader. The interviewees emphasize the

importance of people needing to feel comfortable voicing their opinions, which supports both ideation and evaluation in a team. In order to hear as much from their subordinates as possible, the leader should aspire to have close relations with everyone by taking into account people's individual differences, and do their best to make everyone feel encouraged. Getting to know everyone both as a team as well as individuals, helps the leader learn how to best inspire their group, be it by rallying the team by expressing meaningful values to adhere to, or by searching inspiration from external sources. Overall, a lack of ideas was not brought up as a problem however, but instead Sawyer's (2006) productivity theory of having many ideas and eliminating the bad ones was inadvertently practiced.

The basic principles of the Design Thinking Process are easy to note in the process of game development as well. However, once again the steps of the process are not as straightforward and if anything, they often happen in a different order, or alternate within the game creation process. Kuuasema however seems to work in a way that is representative of the model, because the basis for their ideation comes from their client, who basically dictates their empathizing stage, or will even come forth with the necessary data themselves and then provide it to the company. The other companies interviewed for this thesis seem to work more off the basis of inspiration, rather than the customer. Afterwards, the idea is made to fit for the most appropriate segment. While the target customer is something that is certainly thought of and considered within the process, it rarely becomes the main focus of it. An adapted model of the design thinking process is shown in Figure 6.

Figure 6. An adaptation of Design Thinking Process in game development (by author)

This alternative model presents the steps in a modified order, with the added step of redefining, which in this context stands for refining the game's vision to better match both the team's goals and what the target customer segment is looking for. Although, the empathizing stage can be equally much about "finding your audience" as it is about empathizing with it, it still exists but is rarely the starting point in the creative process.

5.2. Directing Cohesion within a Game Development Team

Having a clear vision and making sure that it's comprehensibly deployed throughout the entire creative team was repeatedly underscored as a priority in the interviews. The undisputed opinion of each interviewee was that the best way to lead to attain cohesive vision is to lead people as a team. This said, giving attention to each team member individually was not criticized either, as making sure that everyone is content with the creative direction and understands the "why" behind the project was also highlighted as pivotal.

Certain tools can be used to make sharing the vision easier. In the companies studied in this thesis, Scrum and Kanban methods were mentioned to be in use. Additionally the use of power point and other visual presentations can be helpful. However, face to face conversation was expressed as the most meaningful communication method. Ideally the vision should be a shared one since the beginning, as it should be developed as a team, not by a select individual or two.

It is difficult to say how closely Tuckman's team development model connects to team dynamics within a game project, as while some social problems were mentioned by some interviewees, they were not brought up as the main focus. To get more information on the subject, an additional question on team development could have yielded more results. However, a clear distribution of responsibility was mentioned as an important factor in the beginning of group work to avoid a supposed storming phase, where people become argumentative because their roles are unclear.

By practicing good management with a team, the leader is able to build trust with their employees, which was implied to be the foundation on which all successful teamwork is built. This trust also allows for more independence within the teams.

5.3. Central Aspects in Managing

Overall, all of the interviewed leaders encouraged lenient management that gives freedom to the individual employees, allowing them to lead themselves. Thus, building a team to be able to advance and inspire itself from within is key. Ways to promote independence in a game development project would be to allow the team members to pick their own tasks and make decisions together instead of have it be dictated by one person.

While none of the interviewees proclaimed to follow any sort of specific management guide or theory, it can be said to quite closely resemble the style described in Management by Walking Around. Because of this inherent nature of game development work, it's possible or even likely that most managers working in game development are already prone to practicing MBWA without conscious effort, but empirical study would need to be done for certainty.

The three things that should be going on when a manager practices MBWA according to Peters (1989) were after all at least indirectly involved in the leaders' work. Listening to what people are saying was definitely highlighted as important by all leaders. Wide experience from different walks of life was mentioned as a helpful source for being able to give input and advice when needed. In addition, it's difficult to direct parts of a game development team unless the manager has a clear understanding of how their work happens in practice; what is possible and what isn't. It is unfruitful, for example, to first plan an elaborate visual design with the artists of the team only for the vision to fall short because of technical restrictions provided by the game engine being built by the programmers of the team. However, conveying the company's values face to face is replaced with conveying the project's vision instead. Although it was also implied that it wasn't necessarily just the leader who would walk around to communicate with others, as it was practiced by other members of the team as well. At Supercell this practice is supported by an open work

space, where people can easily discuss with each other while working, or get up and see each others' desks and computer screens easily.

It was also brought up that the team's proficiency has an effect on the amount of freedom it should be trusted with. This is supported in the Situational Leadership theory (Hersey & Blanchard, 1977, pp. 170-171). However, the (S1) Directing behaviour is one that should rarely happen. The high-relationship leadership styles were very descriptive of the prevalent management style in game development. Alternating between the two different kinds, with either highly directive behaviour or more low-task behaviour can be seen as dependent on the team's experience, as iterated by Hersey & Blanchard (1977).

Lastly, it is made clear that many aspects of managing are situational depending on the type of game project being worked on. Because of their larger scale, the management of AAA game development projects differs heavily from smaller projects, with more planning and less room for error. The way the creative process happens and is handled will ultimately depend a lot on the platform the game is being created, although many of the aforementioned aspects are likely to be shared in most projects regardless of type.

6. Conclusions

When it comes to the main research question of this thesis - what aspects are important for managing a team's creative process in game development - multiple factors should be taken into account. The results of this study suggest that a successful game development project is built on trust, which demands both the right kind of team and right kind of management. The capabilities of the team will inherently depend on the way it is built, and thus putting the right people together becomes fundamental. While the precise way the team should be managed will always be situational, there are some principles that a leader should try to remember and certain methods that can be helpful in making the task easier.

Essentially, a game development team should be allowed a lot of freedom. As such, the manager needs to be able to trust their team, and allow its members to lead

themselves. The manager shouldn't become deluded in the gravity of their role, but instead remember that power should be distributed comprehensibly within the game development project. This means that an inverted pyramid can be a working hierarchical model in a game company, where Management by Walking Around is possibly something often inadvertently practiced not only by the leader but by the other team members as well.

One of the most challenging aspects in the creative process of game development is making the vision clear to the entire team and get them excited about it. Reiterating the vision is extremely important, as it can easily be forgotten or distort overtime unless it is regularly reviewed. Because of this, proper documentation and information architecture are also beneficial to practice from the start of the project, to make the otherwise often messy process clearer. Certain tools are used in some game companies, which can make sharing the vision easier. However, despite being tech-oriented, at the end of the day even game companies rely most on face-to-face conversation as the most effective method of communication. It can also be assisted by arranging the work space in a way that allows for efficient and effortless everyday discussion among the employees and manager. Overall, these principles echo the same thoughts presented by Kuusinen (2014) in her thesis about the leadership of innovativeness in gaming industry startups.

The customer can sometimes be, but usually isn't, the foundation on which the creative process of game development is built. Game ideas usually exist before the customer segment has been defined, but that doesn't mean that the target player would be completely disregarded. As such, the creative process usually begins with ideation rather than audience selection, which makes for an alternative version of the traditional Design Thinking Process when it comes to its use in game development.

Overall a game company's creative process relies a lot on the inspiration and motivation of the team however, which makes taking care of each team member individually something the leader needs to pay attention to. Of course, it's easier to do things the right way from the start, than try to forcibly pull things together at the very end. In other words, it's best to include the entire team in both ideation and decision making since the very beginning to get them excited and motivated. A lack

of ideas is rarely a problem though, and if anything, it's removing the bad ones that's more often a struggle.

6. 1. Future Research Possibilities

Because of the restricted scope of this study, it was impossible to research and present every aspect relevant to the subject. Perhaps the most meaningful study to complement this one would be to learn methods of practicing good team building within game development, as the importance of this was repeatedly emphasized by each interviewee. In addition, an observational study on the management styles in in game companies would be interesting; to see if it would provide more information on the way game development is lead in practice as opposed to how it comes across in interviews. Other research possibilities that would complement this thesis, even if not directly tied to its subject, would be the study of beta testing and management, as well as its role in design thinking. Another subject that came up in the interviews was "games as a service" which takes into account the aftermath of publishing a game, and could be inspected from the perspective of the creative process to see how it progresses and where it ends after the initial development.

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ATTACHMENTS

Interview Questions

1. How would you describe yourself as a leader?

2. If you had to say; what do you think is characteristic to the managing of the creative process in mobile/video games specifically?

3. What are some of the challenges you've faced when starting work on a new game? How about during the creative process?

4. Do you or have you used any creative process or management models or tools in game development? (If so, what and with what kind of results?)

5. How do you personally try to inspire creativity when working on a project?

6. Do you feel that it's more effective to engage actively in the team's creative working process of let it happen naturally?

7. At what point do you define a target customer segment for your games?

8. Which one is more often a problem: having too few or too many ideas in a team?

9. Do you feel like most of the time, new ideas should be dealt with more criticism or more open-mindedness?

10. How long does it usually take to move from idea generation to idea execution?

11. What kind of methods (if any) do you use to decide on creative ideas? (eg. voting)

12. To achieve a cohesive creative vision, do you feel that it is better to manage people 1 on 1 or as a team?

13. Would you describe the creative process of game development as organized and structured or unorganized and unstructured? Which one do you prefer and why?

14. What do you think is the most important thing when it comes to managing the creative process in game development?