

Play and Creativity in Organizational Settings: Understanding the mechanisms through which play influences organizational creativity

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Abstract

In recent years the idea that play in workplaces yield creative outcomes has spread over the business community, based on this believe and aiming to improve organizational creativity companies are incorporating new managerial practice based on play. This Thesis draws on theory of play and creativity in organizational settings and on a case study to get to understand the mechanisms through which play influences organizational creativity. The analysis of the interview data provides findings of benefit for companies that are about to get involved with play. Overall, the research concludes that, even though play could influence positively organizational creativity, there are forms of play that do it more effectively than others, and that all forms of play to truly impact organizational creativity must be managed consciously for such a purpose

1 Introduction

1.1 Purpose

Koncept Kompagniet¹ is company specialized in toy production and have 20 years of experience in toy and game design, development and production. Currently, Koncept Kompagniet's top management, KK hereafter, is on the way of developing a new concept under a different approach. This new approach is called *Play my day*.

"The strategy is rooted in our profound passion for play as it can be used as a catalyst for development, creativity and motivation of children and adults – in the private as well as in the professional context." (Koncept Kompagniet, 2014)

Play my day project could easily be seen as an extrapolation of their current activities to other sectors, not just to children but for adults in working situations. KK's main activities comprise from production of individual products, toys and games, to

¹ www.konceptkompagniet.dk

solutions where the company is in charge of the whole process from product design and idea generation to the final manufacturing process.

Overall, KK positions themselves as providers of:

- *“Expertize - We are experts in our industry. Our experience enables us to find the best materials and factories depending on the task at hand.*
- *Brilliant service - We have a strong supplier and manufacturing network that enables us to quickly execute orders and to deliver on time.*
- *Competitive prices - We know the market and are consequently able to negotiate some reasonable prices with our foreign suppliers” (Koncept Kompagniet, 2014)*

About *Play my day*, is thought as an option of doing something extremely related with the company’s culture, which is making activities and developing physical products that provide children and adults opportunities to play; KK is on the believe that adults and children play too little. According with the company, adults play if there is a clear purpose to do it, otherwise it is often considered useless and immature. In consequence adults stop playing around middle school. Even children, during the educational process play has a lower priority compared to, for instance, school work (Koncept Kompagniet, 2014).

According to KK children need to play to ease the understanding of the physical world and to develop their motor skills, later, play acts as a vital component in their mental and physical development. Overall, play is considered as essential in children formation process (Koncept Kompagniet, 2014). As far as concern to adults and play, KK believes that play may improve adults relationships, foster the trust building process and enhance commitment and affiliation towards work place. Additionally play is thought to impact the innovation performance since it eradicates the fear of failure by allowing the possibility of making mistakes. (Koncept Kompagniet, 2014). KK states that play can never be pointless but will always make people able to discover new inner aspects as well as other people’s ones. Thus, *Play my day* philosophy is founded in below three pillars:

1. *“It has to be meaningful - to us, the client and in the future*
2. *It has to create value - for the individual or the organization*
3. *It has to be fun - we wish to encourage people to do more” (Koncept Kompagniet, 2014)*

Three target groups have been identified, Families, Companies, and Public spaces. The ultimate aim is to design games for these targets. The purpose for each target would be different. For instance, families would benefit from toys and games in a different way that companies would do, while companies for instance would seek the improvement of the innovation performance, families might look for further communication. More specifically the three target groups are:

- *“Families: Parents and children who play together or children who play with each other*
- *Companies: Small and medium sized enterprises both in the public and private sector*
- *Public spaces: The tourism and experience industry and sites that can support play and movement” (Koncept Kompagniet, 2014)*

Regarding target companies, KK have identified a problem, which *Play my day* project aims to solve.

“At workplaces, focus is often on the measurable results. In the long-term perspective, however, it makes sense to motivate and engage employees in the company. For a good work environment can make it easier for the employees to come up with innovative ideas and help solve issues of the future” (Koncept Kompagniet, 2014)

KK, as a solution for this problem, has planned to develop games.

“We will develop concepts that can create more play and exercise during the workday. The activities can be short and intensive (5-10minutes), or extend over many hours/ days” (Koncept Kompagniet, 2014)

According to KK some of the good reasons of play in companies are: free space for joy, laughter and fun, boost of energy for body and brain, team spirit in the form of better community and increased trust between employees, greater creativity and

encouragement to think big because it is okay to fail, losing up mental pressure, shortcut to resolve conflicts, formation of basis for innovation, making employees more open to change, everyone's participation (Koncept Kompagniet, 2014).

However before developing games for this purpose, it is important to actually get to know in which way games impact organizational creativity so that KK in the future is able to develop games upon the implications of this Master Thesis. Therefore, the purpose of this research is bringing clarity to the issue of play and creativity in organizations providing more solid knowledge upon which *Play my day* could be built.

1.2 Problem statement

The main problem to solve seems to be clear. How does play influence organizational creativity? In order to make it more affordable, instead of formulating the problem purely theoretical, it would be better to answer the research question based on cases that actually have happened, this means studying a case in which play is used with creativity purposes Otherwise the overall Master Thesis would not have a solid base, consequently *Play my day* could not be built upon this research.

Continuously, the central problem could also be defined in terms of business performance considering literature and data accessibility to refine the question into something like how play has influenced innovation performance. This would be clearly a very insightful research question; more so, this Master Thesis is within an innovation management program, so it seems logical to address the question from this point of view. However, existing literature relating play and innovation constrains the way the research question is formulated if we were to relate play and business performance. In this sense, there exists well accepted theoretical frameworks explanatory of organizational creativity, additionally; there is theory that relies in such organizational creativity framework to explain play and organizational creativity. In the theory section, these frameworks and theories' proposals are explained more deeply so that the reader understands perfectly the theoretical

foundations of this Thesis. Thus, even if we wanted to find the relation between play and business performance, existing literature lead to use formulate the question in terms of organizational creativity instead.

Data accessibility is another constraint for the formulation of the research question, the innovative performance of companies has been widely studied, but there seems that there are not generally accepted indicators. (Hagerdoorn & Cloudt, 2003). Some of these indicators are internally developed and not publicly available, which in practice implies the impossibility of accessing to data in order to measure these indicators for the Master Thesis purpose.

Finally and most important, it would be very hard to statistically relate play and innovation performance. This is, even if we found a company in which play takes place, and we had access to its innovation performance data, it would be very difficult to explain the degree to what innovation is explained by play in relation to other factors. In this case innovation performance could be influenced by many other factors.

Therefore, taking into consideration KK's desire of finding out how play might influence organizational creativity to develop games for companies; literature in organizational creativity and play; data accessibility and; the difficulty of finding a cause effect relation between play and innovation performance; the research question is actually formulated like:

***Research Question: How does play influence organizational creativity?
A case study of LEGO Serious Play Method²***

² LEGO Serious Play Method case study is explained in later sections as well as the reasons behind choosing it

1.3 Methodology

As it has been stated, the main objective of this Master Thesis is to provide more solid pillars upon which *Play my day* can be built. Popular and more or less generalist press, in recent years, have been expanding the idea that fun workplaces do yield positive organizational outcomes. Following these claims, Karl and colleagues' (2005) work has focused on the positive impacts that fun at work has on different job attitudes and outcomes (Karl, Peluchette, & Harland, 2005) finding that fun at work is actually related to, for instance job satisfaction. Additionally, there have been attempts to relate workplace fun and job performance, Fluegge-Woolf (2014) found that fun at work was positively and indirectly related to both, task performance and creative performance. Nevertheless, as the reader might have already noticed, fun at work seems to be a very abstract concept, and, what it's even more important for this research, it does not necessarily has to do with play. Lamm & Meeks (2009, p. 614) defines workplace fun as playful social, interpersonal, recreational task activities intended to provide amusement, enjoyment or pleasure. Continuing with this stream of research, McDowell (2004) categorized fun at work into distinct categories: socializing, celebrating, personal freedoms and global fun. Even though, play might be placed within one of these categories, and also, it might serve of a way for increasing amusement at work, it seems to be clear that play is not a synonym of fun at work. Although it is logical to think that workers can have fun at work through play, literature regarding fun at work does not pay attention enough to play, hence, this literature is not considered in this research.

Another argument against fun at work literature for this thesis is the use of humour, since researchers have yet to test the relationship between fun and creative performance in a work environment, literature of humour is often used in attempts to establish the relationship between fun and creative performance. (Fluegge-Woolf, 2014). The reason behind using humour is that it promotes openness to ideas and it releases people making them less likely to criticize new ideas or mistakes. (Romero & Cruthirds, 2006). Instead this research draws on organizational creativity research with a specific regard to the componential framework of creativity proposed by

Amabile (1983) upon which Mainemelis & Ronson (2006) builds his theory of play and organizational creativity

The purpose of this Master Thesis, as it has been noted, is getting to know how play influences organizational creativity so that KK can develop games that enhance organizational creativity. Considering this argument, it might seem relevant to design a sample of companies that include play in the work environment, and study both, how play takes place and companies creative performance. This approach would provide implications as much general as possible so that KK can draw in for developing games to be sold to as many companies as possible knowing that the products have actually been developed upon a more or less generalist theory.

A way to actually get to such conclusions is to apply inductive approach in where the research ends up building a theory explanatory of how play influences creative performance out of a sample made of this kind of companies. This would require collecting data from different companies that actually make use of play; this is normally sensitive internal information so that in practice, it is very difficult to acquire such data. Once having collected data, patterns and theory would need to be built as result of the analysis. (Saunders, Lewis, & Thornhill, 2009, p. 124). Considering that the number of companies applying a playful approach is not extremely high, studying a sufficient enough sample could be affordable, thus obtaining general theory. But as stated previously, even though creative performance data could be obtained, like for example using patents as a variable, it would be extremely difficult to acquire internal data about play for such sample, and what's even more important it will be hard to prove a cause-effect relation. Also, the degree to what companies make use of play might differ from one another hindering the task of measuring it.

Another way of obtaining fully generalist conclusions is to apply a deductive approach that includes generalisation hypotheses; this makes necessary to select a sample of a numerical size sufficient enough (Saunders, Lewis, & Thornhill, 2009, p. 125). But again, it would be almost impossible to collect such amount of data. Additionally, an

important part of the deductive approach is to operationalise in such a way that facts can be measured quantitatively (Saunders, Lewis, & Thornhill, 2009, p. 125). It seems that if we were to operationalise play, we might encounter several impediments that would make even harder getting to such a conclusion. Thus, even though, we might be able to measure creativity, for instance with number of patents, patent disclosure, technical reports and research papers (Shalley & Zhou, 2009, p. 19).we might not be able to measure play for such generalized sample. Moreover, it would be difficult design a sample of companies that fit into the definition of play used in this research, which will be explained later. For example while some companies approach play as a diversion from work, others might use as engagement. Although both manifestations influence creativity according (Mainemelis & Ronson, 2006), it would be hard to find a sample sufficient enough for generalisation from both manifestations of play. The extent to what companies use play might also represent a constraint; some might organize football matches once a month, while others might use a playful approach to everyday task, which seems to be difficulties when it comes to design such a sample.

Since a case study has a good potential to generate the answer *how-like* questions.(Saunders, Lewis, & Thornhill, 2009, p. 145) And considering that the main objective is getting to know how play influences creativity, it is more logical to use a case study strategy. Also case studies are most often used in explanatory researches (Saunders, Lewis, & Thornhill, 2009, p. 145), like this one where we try to look for the mechanisms of play influencing creativity. Therefore, this Master Thesis, in order to answer the research question, studies the case of LEGO SERIOUS PLAY (LSP hereafter) which is, to author's knowledge, one of the most used and advanced ways of using play in organizations in order to obtain creative outcomes. To do such a study, a theory explanatory of play and organizational creativity has been tested upon LSP by interviewing people who impart LSP (facilitators).

Moreover it is important to recall that the theoretical framework finally used in this research, (explained in section 2.2), explains how organizational creativity is enhanced through play. As one might notice, this is not interchangeable concept with innovation performance. However KK could, in order to develop *Pay my day*, assume

that organizational creativity will reflect on innovation performance as long as it recognizes the inherent limits of a case study.

1.4 Delimitations

For methodological reasons some delimitations have been made in answering the research question. Firstly, the analysis has been done upon three interviews made to three different people; this sample is considered relevant but their limitations shouldn't be neglected. A more comprehensive sample is likely to provide more insights in order to answer the research question. Secondly, the context in which facilitators impart LSP is not considered, we believe that a more comprehensive sample that takes into consideration contexts e.g. corporations, consultancy, start ups etc. will provide more comprehensive outcomes. Thus, it can be said that the research examines LSP as a method of play for creativity purposes in organizations regardless in which organization takes place. It is just assumed that LSP works the same in all organizations. The reason behind these delimitations is that the sample was elected in a self-selection process; this sample somehow limited the scope of the analysis. Additionally, the analysis does not consider the experience of the interviewees, it's logical to think that interviewees that have been more years facilitating will provide better information; however this is not taken into account because the self-selection process of the sample resulted in a sample composed by people of different level of experience. If there had been more than one interviewee per experience level, comparisons would've been possible. Also the analysis assumes that all interviewees have the same ability as facilitators, however in reality some could be very good facilitators and others might lack ability; this delimitation was done because there was not practical way of knowing the ability of interviewees to facilitate LSP. Moreover, the analysis does not consider the trajectory of LSP since it was launched; in other words LSP in its beginnings might have been less effective than it is today, however it's been assumed a constant effectivity.

The level at what the analysis is performed is also delimitation. Some could argue that it would have been more insightful to conduct a study of LSP in a particular

context during a defined period of time. However, while this could be true, this type of analysis would've resulted in very narrow findings that we are not after. Thus, the analysis was performed over the LSP method itself regardless levels in order to obtain broader findings while recognizing the limits of a case study method. Hence, neither firm level nor industry level are considered.

Last but not least, in the analysis it is assumed that LSP facilitators are valid respondents for the questions related to play as diversion. This assumption is based on the fact that facilitators are the people who are probably most related to play in organizations in business community; therefore even though their jobs have not to do directly with play as diversion, they are assumed to know the differences, advantages and disadvantages of both types of play. However we should expect more insights if questions are asked to people in direct relation to diversionary play in organizations.

1.5 Document structure

This Master Thesis is structured in seven sections: introduction, theory, methodology, case study, analysis, discussion and conclusion. The first section, as you noticed, provides an overall idea of the purpose and reasons behind this research, within the introduction the problem statement is depicted as well as the delimitations of the research. Section two sets the theoretical basis of the research; it is actually divided in two subsections, literature review and theoretical framework. Literature review mainly refers to the literature about organizational creativity and, in less extent, play. In the theoretical framework subsection we depict the theoretical framework that it is actually used. Methods used in this research are clarified in the third section with particular regard to the philosophical approach, research approach, strategy and data collection; advantages and disadvantages of the used methods are also discussed. Section four is entirely dedicated to the case study. In section five we analyse the data collected in the interviews. In this section we also try to analyse the mechanism through which play influences organizational creativity. Finally within the discussion section we discussed the analysis paying special attention to the potentiality of the research for KK to rely on in order to develop games recognizing

the limits of the case study method. The reader might have noticed that there is not a specific section for findings; however, these ones are explained across the sections five and six, the reasons of presenting findings in this way is to increase the readability.

2 Theory

2.1 Literature review

The literature review of this document is clearly divided in two parts, literature regarding organizational creativity is reviewed and secondly literature related to play. Hence, in order to provide a better order to the lecture of the literature review, organizational creativity comes firstly. To do so, we rely on the literature review of the *Handbook of Organizational Creativity* (Shalley & Zhou, 2009)

Organizational creativity is a relatively new research area embedded within the field of organizational behaviour (Shalley & Zhou, 2009, p. 3). Its roots can be found within the research of creativity which belongs to psychology field. The work on creativity from psychology has provided foundations from which organizational creativity has drawn upon for a work that has traditionally focused on factors that either enhance or constraint individual creativity within organizations. In the field of psychology, the attention has been put into individuals' creativity at work, for instance, creativity in the arts, creativity in solving short problems etc. (Shalley & Zhou, 2009, p. 3). However some might ask what makes the difference between creativity from the point of view of organizational creativity and psychology, the former focuses on the variables having implications for the workplace and creativity while the later doesn't.(Shalley & Zhou, 2009, p. 4).

As the reader might have already noticed, defining creativity is not an easy task but a crucial step in this research. Hence it's important to go through the different definitions of creativity in order to have a clear notion of this concept. According to Shalley & Zhou (2009, p. 4) creativity can be described both as, outcome and a process. When aiming at producing creative outcomes, individuals need to engage in a process that can help to produce potentially more creative outcomes. On the other hand as a process, creativity include seeking, and solving problems and implementing novel solutions in a continuous way. (Basadur, 2004). Creativity is also an iterative

process that involves reflections, actions, feedback seeking, experimenting and discussing new ways of acting. (Shalley & Zhou, 2009, p. 4).

Some authors have defined creativity as a bisociative process which means that creativity can be seen as deliberately connecting two or more previously unrelated thoughts or ideas. Defining creativity as such, recognizes that it is important to not new information but for viewing things in a different way (Koestler, 1964). As process Stein (1967) defined the creative process as having three stages: hypotheses formulation, hypotheses testing and communication. In an analogous creativity as a process had been previously defined as a four stage process for creative thinking (Wallas, 1926). This model is considered classical model for creativity as a process (Shalley & Zhou, 2009). More recently Hogarth (1980) defined creativity as a process composed by four stages, preparation, production, evaluation and implementation. However, one of the most accepted definitions is the five stages model of the creative process of (Amabile, 1983). So far, it can be easily noted that all these models share more or less the same characteristics as far as concern to the stages (Shalley & Zhou, 2009). Overall, it seems like all models involve the identification of a problem to be solved, to gather information, to generate ideas and evaluation of the ideas.

It is important that some authors assume or define creativity as a dichotomous concept; this means that persons can be either creative or not (Guilford, 1950; Ghiselin, 1963). This definition of creativity became very popular during 1950's and still popular in much of creativity research (Amabile, 1996). This creativity school of thought seems to be not just popular among researcher but among general public who often believe in persons either being creative or not when it comes to creativity issues. To the author eyes, this conceptualization of creativity seems very simple and does not provide room if we are to make a research on how play impacts creative performance; under this approach, we only would be able to analyse how creative individuals are within a certain organization. This argument is actually supported by (Amabile, 1983) who states that there has been a concentration on the creative person neglecting the creative situations. This approach in intrapersonal determinants of creativity has implicitly neglected external determinants; the trait approach is

incomplete, creativity is better conceptualized as a behaviour resulting from personal characteristics, cognitive abilities, and social environments.

Another way of viewing creativity is as an outcome, under this approach, creativity is defined as something that is actually considered as novel. According to (Shalley & Zhou, 2009) there are some differences between psychology and organizational creativity literature. In psychology some researchers define creative outcomes in terms of fluency, flexibility, and originality. Fluency refers to the number of generated ideas, flexibility is the number of referred categories and originality is the production of unique ideas. Other definitions consider creativity to be novel and useful ideas, processes and procedures (Amabile, 1988). In this sense, creative outcomes may range from suggestions from small modifications to breakthrough changes (Mumford & Gustafson, 1988). Amabile, from an organizational creativity point of view, states that creativity is the production of novel and appropriate ideas by either individuals or small groups (Amabile, 1983). Novel ideas are those that are unique compared to the current availability of ideas while the word appropriate means that have the potential to add long or short term value. Finally, in the organizational literature it's often referred as the idea behind the innovation considering innovation as a componential sum of ideation and implementation. (Shalley & Zhou, 2009).

To conclude, for this Master Thesis Amabile's (1983) definition seems to be the most useful considering the approach of this research; which attempts to understand the mechanism through which play influences organizational creativity.

Once having reviewed the literature concerning definitions of creativity and getting to a final conclusion about what definition of creativity we are going to use in this research, we review the different explanatory theoretical/conceptual frameworks of organizational creativity, for this purpose we have relied on the reviews and conclusions made by (Shalley & Zhou, 2009) who has identified the most relevant conceptual frameworks for creativity.

There are two main authors to be highlighted in this topic; one is the so called (Amabile, 1988; 1996) and the other one is (Woodman, Sawyer, & Griffin, 1993). Amabile's work draws upon her own work related to social psychology of creativity in order to propose a theory that explains and identifies what factors can enhance or inhibit individual creativity of employees. The proposals of Woodman (1993) are more into how creativity is actually impacted by the interaction among individuals, groups and organizational factors. It is remarkable that these two conceptual frameworks share an important point, which is the importance given to the social and contextual influences of creativity. So, even though these are the two most important frameworks, we'll briefly explain other frameworks and how they do or don't apply to our purpose.

Woodman (1993), proposes that creativity occurs at individual levels but it is actually influenced by situational and dispositional factors. For this author, creative performance is the result of the interaction of the individual disposition and the working environment, hence, creative performance in organizational settings is the outcome of the interactions of the characteristics of the individual, group and the organization. Regarding the organization, culture, resources, technology, rewards, are the characteristics most important. If we were to use this model we should assume that play would only impact organizational creativity by influencing cultural characteristics of the organization.

There are other frameworks, (Ford, 1996) argues that creative and every day actions compete as behavioural options. He also argues that every-day actions might be attractive for individuals, and then workers will continue their habitual actions predicting that creativity will rarely occur in organizations. This conceptualization of creativity would only leave room for play as one of the competing behavioural options, which doesn't seem enough to build upon about play and creativity. From a human resources management point of view (Mumford, 2000), studied the different human resources management strategies that might influence creativity. Thus management, in order to enhance creativity should consider acting at different organizational levels, individuals, groups, the whole organizations and the

environment. Under this approach play might impact creativity on the different levels. However this framework does not consider any outcome as creative performance, rather it focuses in human resources management; it is not helpful for the purpose of testing the relation of play and organizational creativity. In the same line of argumentation, (Drazin, Glynn , & Kazanjian , 1999), proposed a multilevel framework where creativity is a psychological engagement process, therefore, to enhance creativity individuals must have references, that's the reason why they need to do creative activities, in this framework play could be considered as one of these activities, however it doesn't seem sufficient to explain play influencing organizational creativity. Mainemelis (2001) looked at the effect of timelessness on individual's creativity and how external factors may enhance or inhibit creativity. Basically, it proposes that when individuals engage in those working tasks producing affection, the likelihood of creative performance increases.

There are other frameworks built under other approaches, for instance, (Perry-Smith & Shalley, 2003), worked upon social network theory, getting to the conclusion that weaker ties are better for creativity. We could argue, that play might influence creativity, under this framework, by bringing workers belonging to different fields, together; which means creating new weak ties. However, this framework would consider the role of play residually. Finally (Elsbach & Hargadon, 2006) identified the importance of mindless work; their main argument is that workers nowadays are clearly overwhelmed by both, tasks and pressure. This overwhelming workload would diminish the capacity of coming up with new ideas (Elsbach & Hargadon, 2006) coined the concept of "*mindless work*", work considerable less demanding regarding cognitive skills. By interpolating this kind of work between hours of normal work, creativity could be enhanced, for example Google 70-20-10 rule (Steiber, 2014) could considered as sort of "*mindless work*".

To conclude Amabile's (1996) componential framework for organizational creativity is the one behind this research mainly because the theory explaining the relation of play and creativity³ is built upon this componential framework

Once having reviewed explanatory frameworks for creativity in organizational settings, it's time depict what literature has to say about play. To do so, we partially rely on Mainemelis & Ronson (2006) literature review, which, even though is not fully comprehensive, it provides a good overall vision of the relationship between play and creativity.

As humans, we are able to recognize the play expressions surrounding us, not just in sports contexts but also in cinemas, amusement parks etc. However, even though playing is very familiar to us and has been a studied matter in many social sciences often associated with individual creativity, play has appeared ill-defined in organizational behaviour literature. Therefore what play is in the context of organizations and the consequences of playing for organizations have not received systematic research attention (Mainemelis & Ronson, 2006)

Intellectually talking, creativity and play relationship has empirical support and theoretical frameworks help to explain this relationship. Dansky (1999) collected and summarized psychological studies that supports the fact that play fosters creativity in both, adults and children. In an analogous way (Csikszentmihalyi M. , 1997; Csikszentmihalyi & LeFevre, 1989), did a biographical work of highly creative people and found that, one of the common characteristics of their careers is that a playful attitude toward work was applied regularly. Research about play in social sciences has resulted on a set of theoretical principles that support the relationship positive between creativity and play. However, the relationship between play and creativity in organizational settings doesn't seem to be clear enough.

In work settings, play has been traditionally seen as for children but not for adults. Since the industrial revolution, the focus on rationality and competencies were

³ explained in latter section, the theory is the one posed by Mainemelis (Mainemelis & Ronson, 2006)

the most valuable attitudes toward tasks and jobs. Nowadays, changes have been profound and work culture has been changing its assumptions regarding play. (Mainemelis & Ronson, 2006). Actually, some companies have incorporated play as a central concept of their cultures see IDEO, (Sutton & Hargadon, 1997), southwest (Hallowell, 1996), LEGO, (Kristiansen & Rasmussen, 2014). But, most companies see play as an efficient and cheap distraction from everyday tasks in order to impact employee's morale. (Mainemelis & Ronson, 2006).

As it was already mentioned, it's not that play and creativity has been ignored in organizational behaviour literature, but has not received systematic attention. March (1976), stated that creativity is fostered by play freeing people from work consistency, additionally (Weick, 1979) suggested that creativity is increased by play because it allows combinatorial flexibility and novel recombination of existing ideas. Amabile (1996) pointed out that freedom at work encourages people to play by combining ideas which might not have seem useful right after but they could be used for generating novel products or solutions. There are other authors who has also claimed that play could be an important factor for creativity in the working environment, see for instance (Glynn, 1994; Csikszentmihalyi & LeFevre, 1989; Mainemelis C. , 2001). However, according to (Mainemelis & Ronson, 2006) previous works and articles about play have discussed the role of play either without defining it or by focusing in some elements of play like flexibility. Hence, it seems that academic literature has not reached an agreement about the definition of play upon which, a consistent body of research could be built.

Moreover, according to (Mainemelis & Ronson, 2006) the dichotomous way of presenting play is the main approach. One part of the literature has focused on play as diversion from work tasks, the classic break from work; on the other hand, authors have discussed as a way of engaging with work.

More recently, (West, Hoff, & Carlsson, 2013) wrote, the most recent work regarding play and organizational creativity, at least to author's knowledge. In this work, seventeen practitioners, creativity consultants and professionals were interviewed.

The research aimed at investigating the notions that professionals have about play and creativity. The author pointed out that play was found to be encouraged by a certain degree of permission to play given by managers themselves demonstrating a playfulness approach among other factors. On the other hand, stressful working environment and fun.-phobic attitude were found to be discouraging factors. One of the most interesting insights is that interviewees found play extremely difficult to define. However, this work does not clearly clarify what kind of play the author refers to, it could be play as a form of diversion and play as way of engagement to work.

Due to the above explained, Mainemelis & Ronson (2006) has proposed a theory aiming to explain the relation between play and organizational creativity under a unifying definition of play; this theory is explained in the next section.

2.2 Theoretical framework

Mainemelis & Ronson (2006): A theory of play and creativity in organizational settings.

In this section the main theoretical framework used in this research is explained detailed so that the reader understands the mechanism through which play influences organizational creativity. The organizational framework chosen for this research is the one of (Mainemelis & Ronson, 2006); there are reasons behind this decision. The first reason is that this author examines both manifestations of play, as a form of engagement with working task and a form as diversion, whereas, previous works tend to focus in either one playing approach or another. The second reason is that this framework, unlike others, tries to combine previous definitions of play and provides a definition which takes into consideration previous works on this topic. It's important to notice that previous work often do not clearly define play. Third reason is that, this framework is built upon a well-accepted framework which explains organizational creativity performance, and this is the so-called (Amabile, 1996). This provides reliability to the research, in the sense that Amabile's work has been fairly used in the literature when it comes to organizational creativity. In other words,

Mainemelis argues that play influences the components of Amabile’s framework and this one, explains organizational creativity. Fourth, it seems that the (Mainemelis & Ronson, 2006) framework it hasn’t been tested, therefore some kind of test is needed, which increases the growing literature in organizational creativity related to play. Additionally, considering that play and creativity has been studied but not tested, challenging this framework by bringing it into practice could be seen as the novel aspect that any Master Thesis is expected to include. Finally, the framework addresses, although it does not test it, the same research question that we are trying to solve in this thesis, which is; how play influences creativity in organizational settings?

Overall, this theoretical framework examines both manifestations of play, and argues that when play is seen as a form of engagement with tasks it facilitates the cognitive, affective, and motivational dimensions of the creative process as defined by (Amabile, 1988), whereas when play is seen as a form of diversion from organizational tasks it fosters social relational dynamics that encourage creativity in the first place. Both manifestations are explored, when it comes to play as engagement, the framework analyses play and cognitive processes, affective processes, task motivation, domain relevant skills and creativity skills. Whereas regarding play as diversion, psychological safety, organizational culture and social networks are studied. Factors that can potentially influence play are also explored, job complexity, environmental threat, time and space for play and individual differences.

2.2.1 Defining play as a behavioural orientation

It has been previously mentioned that this frameworks partly relies on the componential framework of (Amabile, 1988) and the revised version (Amabile, 1996) for organizational creativity; which argues that social context, motivation creativity and domain relevant skills interact to facilitate creativity. Relying on Amabile’s well accepted componential framework, Mainemelis & Ronson (2006) propose that play as engagement fosters cognitive and affective aspects of the creative processes and intrinsic motivation, as well as the development of domain relevant and creativity

skills. However, it's crucial to firstly define play; in this regard the definition of play is clear.

“A behavioural orientation consisting of five elements: a threshold experience; boundaries in time and space; uncertainty-freedom-constraint; loose and flexible association between means and ends; and positive affect.” (Mainemelis & Ronson, 2006)

The **Threshold Experience** elements refer to the fact that when we play things are not what they really are. Mainemelis (2006) explains it with an example, in a game of cops and a robber, a robber is not a robber, however even though she or he is not a robber she behaves as if it was. That is, play is often a threshold between the true and the false, being itself neither true nor false (Sutton-Smith, 1997). Thus, play has the power of transforming the nature of an activity. Mainemelis (2006) points out another example in order to illustrate this, when we do play fight the behaviours are extremely similar to a real fight, but, fear, risks and objectives of a real fight do not take place. When it comes to working activities play transforms them in the same way, work tasks may result in outcomes, but the tasks are not experienced and fulfilled in a traditional way with a sense of mandatory and efficiency-orientated job (Glynn, 1994). According to (Schrage, 2000), managers can experiment with possible realities and identities through simulations and role plays based on this threshold experience.

Boundaries in time and spaces comprise another element in Mainemelis (2006), this element implies that play often takes place within defined boundaries of time and space, which can be material or ideal (Huizinga, 1955). Therefore, play usually happens in a space and time for play, see for instance sports events. The good thing of these boundaries is that they separate play from everyday life suspending normal rules and legitimizing undesired behaviour (Turner, 1982). When it comes to organizational settings, practices like Google 20% rule (Steiber, 2014); institutionalize a space and time for play which provides individuals with a free space and time to play with their work away of any kind of goal-oriented constraints. However, one might think that the same play can occur informally; according to (Locke, 1996) social play often takes place before work starts, after work and during

breaks. For this kind of break the boundaries are provided by the play community. There is an interesting study regarding this kind of social play, (Roy, 1959) noted that each working day is marked by interruptions like “coffee time” that acts as a play space.

Uncertainty-Freedom-Constraint is another element of play as a behavioural orientation. Play normally implies uncertainty of an unresolved possibility, for example you can know the rules of a football game although you will never know how it will deploy, and in addition, you can hardly find two games exactly the same. Uncertainty of play is therefore linked to freedom and constraint at the same time. Play offers players a certain degree of autonomy from constraints. In a football game players have some freedom to decide how to play. However, players must respect football rules. These rules can be considered as constraints which have to be accepted by players so that the game can take place. Freedom-Constraints elements are present in different types of play in different ways; in sports constraints are fixed rules which do not make obstruction to the game itself. Whereas other plays constraints are not fixed rules but norms developed by the players. In improvisational play, constraints are the result of the interaction among players and events; constraints create novel outcomes, which at the same time create new constraints for future actions in an iterative process (Barret, 1998).

The fourth element is **Loose and Flexible association between End and Means**. Play is often driven by spontaneous motivations, or it might even have defined goals. Also Play may involve a determined ends, for example chess games work in this way. However, play is not defined by the existence or absence of goals but by the fact that play is motivated by seeking for efficient means to solve a problem or match a goal with reliability. (Glynn, 1994).

Last element is the **Positive Affect**; the degree of positive affect supplied by play varies in its degree of intensity and complexity. It could be relaxing or exciting. However, play is usually considered as “fun” but its affective structure is much more complex that it might even imply negative emotions or feelings (Locke, 1996). In

positive affecting terms play offers a safe space for the expression and transformation of feelings, even negative feelings can be transformed. (Winnicott, 2001). Thus, play allows people to cover emotional conflicts enhancing to get rid of negative emotions. (Locke, 1996).

In the previous paragraphs the five elements of the Mainemelis' definition of play have been explained. To sum up, play is a behavioural orientation which consists in five different elements: a threshold experience, boundaries in time and space, uncertainty-freedom-constraints, flexible loose association of means and ends. According to Mainemelis (2006) these elements are what play is made of, however, not all elements are present in all playing situations but the more elements there are, the more play-like a task will become. In the majority of playing activities play involves a circular interaction of the elements. One might say that these elements are also manifested in other activities, but Mainemelis argues that play is the activity in which the elements are most coupled and take a specific meaning. This is the definition of play that will be used in this research.

Note that his framework considers two manifestations of play, as engagement and as a diversion, which both are argued to influence organizational creativity. From this point, the arguments through which the two manifestations of play impact creativity are explained. As engagement play influences creativity via: cognitive processes, affective processes, task motivation, domain relevant skills, and creativity relevant skills. Whereas play as diversion is argued to influence organizational creativity less directly through: psychological adjustment processes, and social context.

2.2.2 Play as engagement and creativity

Play as engagement, refers to the situations in which employees turn work into play rather than escaping from work to play. Play in this sense, is a behavioural orientation towards work, which, therefore has a direct influence into creativity. Play as diversion impact creativity by shaping social relationships and affective climate. (Elsbach & Hargadon, 2006; Perry-Smith & Shalley, 2003).

Concerning cognitive processes, play facilitates five creativity relevant cognitive processes: problem, framing, divergent thinking, mental transformations, and practice with alternative solutions. (Mainemelis & Ronson, 2006). The way a problem is framed determines how the problem will be solved, thus if a problem is proposed in a unique way it will yield a novel solution. In this sense play provides a space for redefinition of problems, moreover, the freedom of external constraints provided by play increases the likelihood that already known tasks will be framed in another different way. Additionally, loose and flexible association between means and ends foster people to sense problems regardless the former way of framing the task. Divergent thinking refers to the information generated out of given information where the important aspect is on the variety of output while mental transformations are about transforming existing knowledge into new configurations (Guilford, 1968). Psychology literature have supported the fact that play involves divergent thinking as well as mental transformations. (Mainemelis & Ronson, 2006). Finally, the threshold experience element together with the boundaries stimulate experimentations which would not be possible under other circumstances, in consequence play brings novelty. (Glynn, 1994). By enhancing the creation and generation of alternative responses play also facilitates a better evaluation of solutions and, also, by allowing the combination of different elements of different solutions provides a better selection of ideas. (Singer & Singer, 1990). Generally, according to Mainemelis and based on previous researches, plays is thought to foster problem framing, divergent thinking, mental transformations as well as the practice with alternative solutions, and evaluative ability.

In relation to play and affective processes, there are four affective processes that impact the creative process: affective pleasure in challenge, openness to affective states, emotional modulation to affect and access to affect-laden thoughts. These four processes were actually identified by (Russ, 1999) in an integrating study. More recently, Mainemelis (2006) argues in his frameworks that play leads to these affective processes. Affective pleasure in challenge has to do with the pleasure of identifying and the joy of searching and getting results. Actually, according to (Russ, 1999) affective pleasure in challenge, tension and uncertainty are well tied to play. Openness to affective states has to do with experiencing, which has been found to

facilitate, among other factors, managerial creativity (Amabile, Barsade, Mueller, & Staw, 2005). This creativity comprises at the same time different type of emotions like passion or anxiety, which impact affective states. Also affective process fosters divergent thinking as well as mental transformation. (Mainemelis & Ronson, 2006). More so, when it comes to the modulation of emotions, play allows modulating a wide range of emotions because players can choose the limits of their acts. It's like in a play fight where players can tolerate some degree of aggression, and anger while having fun. Overall, creativity is fostered by play because it permits to experience and express emotions in a safe way (Mainemelis & Ronson, 2006).

At last but not least, affect-laden thoughts are processes which also lead to creativity (Russ, 1993); affect-laden thoughts are concepts and images with emotional content because they provide associative links between cognitively remote concepts in memory (Ortony, 1993). When concepts are stored attached to an emotional concepts (Isen, 1999) this link fosters the association of concepts that can be cognitively unrelated by emotional related. (Shaw, 1999).

To wrap up according to (Mainemelis & Ronson, 2006):

“Play fosters affective pleasure in challenge, openness to affect states, and access to affect-laden thoughts. Play also aids the emotional modulation of affect states. Clearly reciprocal effects between play, affect and cognition occur in the creative process. Play stimulates affective pleasure in challenge, which stimulates divergent thinking, which may lead to surprising discoveries that reinforce affective pleasure in the task and play itself” (Mainemelis & Ronson, 2006).

Play as engagement also impacts the creative process by facilitating the intrinsic motivation, which refers to the engaging in tasks for the satisfaction one might find in it. Not all intrinsically motivated activities can be considered as play, but people are more likely to play with activities which they find rewarding. Even more important is the fact that in the cases where the initial degree of intrinsic task motivation is low, play increases intrinsic motivation (Mainemelis & Ronson, 2006). Thus, the authors suggest that there is a two-way interaction between play and intrinsic motivation.

In relation to play and domain-relevant skills; being creative in a certain domain or task is underlaid by individual's skills on that field. These domain-relevant skills will supply the individual with a cognitive set to be used when approaching work tasks. This set of elements is the one entering in the combinatorial game of the creative process. And it is determined by innate skills, formal education and practice (Amabile, 1988; Amabile, 1996). Play allows individuals to improve their domain-relevant skills. It minimizes the potential consequences of experiencing by providing low risk or riskless situations (Bruner, 1972). Also, when it comes to play, errors are used in exploration and practice, which provide individuals with valuable information to be used in improving the so called skills (Schrage, 2000). Additionally, the development of skills is increased by uncoupling means and ends which foster exploration and trying variables that would be hardly tried in other situations, this helps in the process of mastering a field (Mainemelis & Ronson, 2006). However, in this framework the author also identifies drawbacks of playing. Studies have shown that play is not the best way to learn when it comes to efficiency; reliability and control of the learner are important factors or concerns. (Glynn, 1994; Mainemelis & Ronson, 2006) On the other hand:

“Play fosters involvement, exploration, experimentation, flexibility, and quality in learning, which, as the extant creativity and learning literature suggest, are particularly conducive to developing and refining domain-relevant skills” (Mainemelis & Ronson, 2006).

Last but not least, in reference to play and creativity skills, Mainemelis (2006) argues that; since divergent thinking can be developed according to (Basadur M., Wakabayashi, & Graen, 1990), and play is a natural way to practice it (Dansky, 1999), play fosters creativity by enhancing divergent thinking and combinatorial flexibility. Dansky (1999) argues that play influences creativity by practicing the most important cognitive skills of creativity. Players explore different solutions, evaluate different possibilities and frame problems in a new way; particularly play is helpful to develop divergent thinking skills and transformation abilities because in play people can modify their perception about the limitations of the world.

“When people play, therefore, not only do they facilitate their creative process in the task at hand, but they also develop a more enduring disposition toward creativity, although this is fostered to some extent by any type of form of play, play as engagement gives individuals the opportunity to practice and rehearse the creation of novelty specifically in the context of their work.” (Mainemelis & Ronson, 2006)

2.2.3 Play as diversion and creativity.

Sometimes during working days, employees do try to disengage from working tasks. According to Mainemelis (2006), organizational literature has often considered disengaging activities as a source of inefficiency that takes attention away of actual working tasks. Nevertheless, this framework suggests that, since these activities form the context where employees develop their tasks, they influence creativity indirectly in a more peripheral way. Therefore, *“play can facilitate creativity by the influence of people’s psychological processes and by creating a social relational and cultural context that is conducive to creativity” (Mainemelis & Ronson, 2006)*. In the next lines, the mechanisms through which diversionary play influences organizational creativity are explained.

Play and psychological adjustment, is thought to help people to adjust in a psychological way to their work via fostering restoratory and compensatory functions. For example, diversionary play would facilitate relaxation in a job that requires physical effort while in jobs involving cognitive effort play would enhance cognitive restoration (Mainemelis & Ronson, 2006). According to (Elsbach & Hargadon, 2006) diversionary play would facilitate mental breaks; which are crucial for the incubation stage where people process and combine ideas. Additionally play offers a context that eases the transition between tasks by removing the attention from the actual working tasks to the play activity, which makes easier to address the attention to the next working task (Mainemelis C. , 2001). However, the positive affect provided by the diversionary play might not induce to creativity on the next working tasks if the next working task does not offer opportunity to express creativity. Coming back to routine tasks after playing could lead to a negative affect since employees may think that time for play is over. In other words trying to manage positive affect via play without

considering the organizational context in play as diversion happens, my end up creating negative affect. (Filipowicz, 2003).

About the relation between play and the social context

“Diversiory play forms part of this larger work context and influence the nature of social relations within the organization. By creating social bonds between members of the organization, diversiory play makes individuals more willing to engage in the creative process, and more able to gain useful inputs into the creative process from others. Diversiory play achieves these effects by strengthening psychological safety, by countering cultural resistance to creativity, and by increasing the flow of diverse information through social networks” (Mainemelis & Ronson, 2006).

Diversiory play also impacts creativity via psychological safety. Psychological safety is the belief that people are free of evaluation regardless of how he behaves in certain situations (Rogers, 1954). The argument is that diversiory play diminishes hierarchical relationships by releasing people from expected behaviours. By enabling people to relate more personally, play helps organizational members to feel comfortable with trust. (Mainemelis & Ronson, 2006). Therefore, even though diversiory play is not the only way to create new ties and blur down hierarchical positions, diversiory play makes workers more willing to engage in creative tasks because it helps to build trusting relationships among workers. However play is often used in organizations and other contexts to create personal relations. (Sandelands, 2003).

In relation to the organizational culture and diversiory play, according to Mainemelis (2006), diversiory play could be well related to organizational culture. He based his argument on (Wilkins, 1983) who suggested that play shows values in a more persuasive so that mission and corporate values can be learned. Additionally, diversiory play is thought to enhance the creation of sub-cultures which look for organizational changes, this argument is based on (Locke, 1996) who stated that employees find social plays as a way to express criticism to the company. This kind of expression might not induce to creativity but it provides a context for exchange of information. Also this self-expression is thought to foster creativity by offering

informal social space for the exchange of alternative interpretations and opinions which might not be aligned with the dominant mind-set.

“Across cultures and eras, there appears to be a link between social system’s willingness to nurture play and its ability to be creative. An organizational culture that supports diversionary play appears to be serving this function in modern organizations” (Mainemelis & Ronson, 2006)

Regarding play and social networks, diversionary play helps in creating and maintaining weak social network ties with both members of the organizations and outsiders. The mechanism is that play induce to get in contact members who rarely interact. Weak networks ties foster creativity by offering access to remote information. (Perry-Smith & Shalley, 2003). However there is one condition about diversionary play, it must be social; diversionary play la computer’s game might have other kind of individual benefits (Elsbach & Hargadon, 2006)

“Diversionary play loosely connects organizational members to one another in a way that gives them access to diverse perspectives, diverse information, and other important creative inputs” (Mainemelis & Ronson, 2006)

2.2.4 Job conditions and play

As it has previously remarked, this framework considers play not only as activities but as a behavioural orientation to any activity. Hence the author suggests that there are conditions that influence the likelihood of play taking place in the working environment. In this sense, Mainemelis (2006) argues that job complexity, environmental threat, a legitimate organizational time and space for play and individual differences are inductive factors. In this section we briefly explain these factors.

Job complexity refers to the fact that the nature of the job influences the likelihood of play as engagement in organizations. Jobs where the employee dispose of higher levels of autonomy, greater complexity and skill variety will encourage play as engagement. (Hackman & Oldham, 1980). When there is autonomy workers can choose the way to accomplish work task without supervision restrictions which offers

an opportunity to play. Also complex tasks often have less means-end relationships and require flexibility as well as experimentation. The framework sees job complexity as an important factor in the relationship between play as engagement and play as diversion. When work environments are characterise by monotonous, the author expects worker to primarily engage in diversionary play, in other words, in this type of work play would compensate what the actual job cannot provide, therefore, diversionary play is thought to have little or nothing influence on creativity in this environment. However, high complexity environments increase the likelihood of play as engagement which increases the likelihood of people's creativity through the mechanism already explained.

Environmental threats have to do with the fact that play rarely happens under external threat conditions. In organizational settings, where a change in the environment occurs, organizations react by changing strategies and procedures, management tries to interpret what it has happened and translate into action (Dutton & Jackson, 1987). Environmental threat usually has the potential for loss, decrease in the market size and/or scarcity of resources (Staww, Sandelands , & Dutton, 1981). In this situation organizations tend to rely on former knowledge and the ability to process ambiguous information is reduced. Additionally, under threat organizations increase the degree of control by formalising procedures and trying to keep the resources. Therefore, since work has to be accomplished more efficiently, there is not room for exploration and experimentation. Hence, threatening environments will cause that people can feel that is not safe to play with their work tasks. Even though some diversionary play can take place, play as engagement is unlikely to occur. (Mainemelis & Ronson, 2006).

Time and Space for play, play should take place space and time previously defined for this kind of expression. Organizations can foster play by legitimizing play as engagement and making it safe. However, work behaviour that is not directly related to work task is often discourage. Organizational members are more likely to play when there is a feeling that there is an institutionalized time and space for it without having to worry about the consequences. Additionally can also provide time and

space for diversionary play, but, what it is more important is that employees should feel free to take advantages of diversionary play without being punished, this is done by recognizing the value of play. (Mainemelis & Ronson, 2006).

Individual differences are considered by the framework as another factor that influences play behaviour. The main hypotheses is that this kind of differences impact not only the degree to which people play but also the way and the level of social interaction at which people play. The view behind this hypothesis is that play is considered as polymorphous, this means that individuals vary in terms of how they like to play and at what level of interaction.

3 Methodology

A method is defined by the American Heritage Dictionary (2015) as a systematic way of accomplishing something. Although this definition is quiet vague it captures the essence of what methodology is. This section aims to explain what procedure has been used in order to cope with the research question and the reasons behind its use. The chapter is divided in four subsections philosophical approach; research approach; research strategy; data collection. To write this section, the manual for business research of Saunders, Lewis, & Thornhill (2009) has been used to clarify and explain the methodology concepts.

3.1 Philosophical approach

Philosophical approach seems a rather profound concept when it comes to business studies; however it simply has to do with the development and nature of the knowledge that the research is about to create. Thus the philosophy that we have, will define our view of knowledge and the process by which it is created. (Saunders, Lewis, & Thornhill, 2009, p. 141).

The first aspect to be considered is the **Ontology**; this refers to the assumptions that we make about how the world works, the nature of reality. There are two views: Objectivism and Subjectivism. Objectivism assumes that social entities exist independent from social actors. (Saunders, Lewis, & Thornhill, 2009, p. 141) Adopting this position would mean that we consider play as a social entities and players as social actors and that, all players will see play in essentially the same way. It seems rather unrealistic and misaligned with the research question to consider that individuals are influenced by play equally regardless the interpretation they might give to play. However **subjectivism** is a view that assumes that social phenomena are created from the perceptions and consequent actions of social actors (Saunders, Lewis, & Thornhill, 2009, p. 142). It's more logical to adopt this view since it's more realistic to think that individuals will have their own interpretation of play depending

on their own views of the world and that creativity is not an entity, rather it is produced through the interaction of people and play.

Second aspect is **Epistemology**, which refers to the knowledge that is acceptable in a particular field. There are three philosophical positions regarding epistemology: positivism, realism and interpretivism. Positivism reflects the position of the natural scientist “*Working with an observable social reality and that the end product of such a research can be law-like generalizations similar to those produced by the physical and natural scientist*” (Remenyi, Williams, & Swartz, 1998) This view would not be adequate for our research question since this research is not after a law creation but after understanding a process. Another philosophical position is the realism; this assumes that reality is the truth and that objects have an existence independent of human mind. This position is definitely not useful to this research since play is often about metaphors and giving meaning to objects, in playing situations the reality can be changed and modified. Finally **interpretivism** put the emphasis on the differences between human beings as social actors. Interpretivism advocates that researcher should get into the world of the research subject and understand their point of view. It’s argued that this position is highly appropriate in business and management research, organizational behaviour and human resources because the situations are often complex. Thus, for this research an interpretivist position has been adopted to understand how play influences creativity.

Axiology refers to what role researcher’s values play in the research. The values of the researcher get reflected on many stages of the research, for instance, when drawing conclusions out of data, or when choosing an interview over other methods. Therefore it’s useful to state the values beforehand; then it should be noticed that the author is particularly enthusiastic about the subject of the research; also the desire of drawing valuable conclusions for KK might have resulted on unintended biases reflected on the research.

To conclude, we can refer to the work of Burrell & Morgan (1982) to clarify the philosophical approach of this research. This work states four paradigms under which

a research can be undertaken: radical humanist, radical structuralist, interpretive and functionalist. This research could be framed in the interpretive paradigm which in the end means that our research is more into understanding irrationalities rather than rationalities. Under this paradigm the concern is not to achieve a change in the order of things but to understand it and explain it.

3.2 Research approach

There are two different common research approaches. In simple terms, a deductive approach means basically that we test the hypotheses of one theory, which we could develop ourselves, or it can be already developed. Under an inductive approach data is collected and theory is developed as a result of the data analysis. According to Saunders, Lewis, & Thornhill (2009) even though labelling might address us to misleading, interpretivism is more related to deductive approach whereas inductive approaches has more to do with positivism.

In this Master Thesis a deductive approach has been used although the theory tested has not been self-developed; it's been posted by Mainemelis (2006) . The hypotheses or arguments of this theory were operationalized in the form of interview⁴ in order to be tested, once the questions were fully answered, its analysis resulted in understanding how play impacts organizational creativity. One important aspect regarding the deductive approach is the generalization; in order to be able to generalize it is necessary to test the theory over samples of a sufficient numerical size. However, this thesis does not act over such a sample therefore, findings will not result in general implications but valuable for understanding.

3.3 Research strategy

For this research a case study strategy has been followed; according to Morris & Wood (1991) this strategy is of particular interest if we aim to acquire a rich

⁴ Explained in 3.4

understanding of the context and the process. In this sense, it fits the research question, by using a case study we can understand play influencing organizational creativity. More so, case study is thought to be able to answer why, what and who like questions; which seem to be adequate for the research question and the topic.

In case study the data collection techniques can vary; interviews, questionnaires etc. However it is recommended to triangulate and use different sources of data, this is to ensure that we are sure about what data is telling us. In regards of this, in this research three different sources of data have been used although only one technique. About this research it can also be said that it is a single case study, this provides the opportunity of analysing a phenomenon, in this case play and creativity. Yin (2003) argues that multiple cases study are preferable, choosing a single case study needs a strong justification. Regarding the choice of using a single case study, LSP has been chosen as single case study because it's probably the most widely used and advanced method of using play in organizations (Frick, Tardini, & Cantoni, 2013), therefore studying this case is expected to yield sufficient information to understand how play influences organizational creativity. Last but not least, Saunders, Lewis, & Thornhill (2009) suggest that a case study is a good way of exploring and existing theory, which in this case is Mainemelis' (2006) theory of play and creativity in organizational settings.

3.4 Data collection

In order to collect data, a qualitative method has been used, interviews. This will allow getting different aspects of the phenomenon for a better understanding of it. Therefore, the theory of Mainemelis (2006) was operationalized in the form of interview (See Appendix I: Interview Questions and Table 1 Source: Author Page- 38 -) where all topics of the theory are covered: play as engagement, play as diversion and job conditions. Furthermore, to obtain better data about some theoretical arguments were divided into more than one question in order to test as good as possible the concepts.

About the interviewees and the sample, a self-selection sampling has been carried out; this was done by posting an ad (see Appendix II: Post on online) on an online official discussion forum⁵ where professionals of LSP gather to exchange opinions. The choice of conducting self-sampling is because by doing it; we ensure that interviewees will devote time the interview. More so, by stating the research objectives and topic on the post, individuals would assess themselves as qualified respondents.

Finally five LSP professionals replied positively to the post from Netherlands, USA, Austria, Indonesia and Argentina, although three interviewees were actually selected due to factors like personal schedules, sickness and time zones. The sample got finally composed by three persons.

Mercuri (2015), he works with play in corporate settings, he is located in the Netherland and has more than 20 years of experience in consultancy. He's been using LSP for the last couple of years in one Dutch big multinational corporation exclusively whose name has been omitted in this document. Kistenmacher (2015) applies play not only in one company but on those that requires her consultancy services from a medium consulting company specialized in LSP. Therefore she has knowledge and experience with play in different kind of organizations. She has been facilitating LSP since 2008 not just in Argentina but in other Latin-American countries. Finally, Grassler is the youngest interviewee; his experience with LSP is in a start-up environment, particularly incubators located in Austria. All in all, the sample was considered to be able to provide enough insights to test the theory and address the research question. The three interviews had an approximate duration of 45 min – 1 hour each

Last but not least, in this research it has been assumed that, even though interviewees do not work directly with diversionary play, they are able to respond to questions related to it due to their overall knowledge of play in organizations.

⁵ www.seriousplaypro.com

Operationalization of theory	
Play as a form of engagement with work	
<p>Play and cognitive processes: Play facilitates divergent thinking, mental transformations, practice with alternative solutions and evaluative ability.</p>	<ul style="list-style-type: none"> • To what degree does LSP help people to frame problems differently? • To what degree does LSP help people to practice with alternative solutions?
<p>Play and affective processes: Affect impacts on creativity by influencing cognitive functioning by four specific processes influence creative performance.</p> <ul style="list-style-type: none"> • Affective pleasure in challenge • Openness to affective states • Emotional modulation of affect • Access to affect laden thoughts 	<ul style="list-style-type: none"> • To what extent do people enjoy identifying a problem and seeking novel insights in LSP workshops? • To what degree do you think people experience a wide range of emotions in LSP sessions? From your experience • To what extent does LSP allow people to express themselves in freedom? • To what degree do you experience thoughts containing emotional concept in LSP sessions? From your experience
<p>Play and Task motivation: Play achieves its impact on the creative performance by facilitating intrinsic motivation</p>	<ul style="list-style-type: none"> • To what degree do LSP plays increase people motivation toward work? From your experience
<p>Play and creativity skills Divergent thinking has be found as a factor that affects creativity. Play is</p>	<ul style="list-style-type: none"> • To what extent does LSP helps people to think in a more creative way? From your experience
<p>Play and domain relevant skills Play as engagement allows individuals to improve their domain relevant skills by providing less risky situations</p>	<ul style="list-style-type: none"> • To what degree does LSP influence people’s domain relevant skills? From your experience
Play as a form of diversion from work	
<p>Play and psychological adjustment. Diversionary play helps worker to adjust to their work by enhancing restoratory and compensatory functions.</p>	<ul style="list-style-type: none"> • To what degree does diversionary play helps people to recombine and acquire new ideas or insights? From your experience
<p>Play and psychological safety Diversionary play often demolish hierarchical relationships by releasing people from their normal and roles expected in the working environment</p>	<ul style="list-style-type: none"> • To what extent does play make people unattached to hierarchical roles? From your experience
<p>Play and organizational culture Play demonstrates values in a way that is more vivid and concrete than direct communication of mission</p>	<ul style="list-style-type: none"> • To what degree people learn company’s values trough play? From your experience
<p>Play and social networks Diversionary play facilitates the creation of weak social network ties. Weak social network ties allow workers to access to remote</p>	<ul style="list-style-type: none"> • To what degree does diversionary play facilitates the interaction with new people? From your experience

information.	
Job conditions	
<p>Job complexity When jobs are rigidly structured and streamlined in advance, play as engagement is much less likely. While play as diversion is more seen in monotonous jobs</p>	<ul style="list-style-type: none"> To what degree do you perceive people’s job as complex? People who play and from your experience
<p>Environmental threat It decreases the likelihood of play as engagement by making it less safe in psychological terms.</p>	<ul style="list-style-type: none"> To what degree do you believe people stop themselves from playing because the organization requires them to be task focused, goal oriented and efficient? From your experience
<p>Time and Space for Play Providing time and space for play legitimizes play</p>	<ul style="list-style-type: none"> To what extent do organizations provide with time and space to play? From your experience
<p>Individual differences Individual differences is another influencing factor</p>	<ul style="list-style-type: none"> To what degree do people engage with people different to you when it comes to play? From your experience

Table 1 Source: Author

4 Case study

In this section, the case here studied LEGO SERIOUS PLAY is presented, there is no intention of analysis; rather it's just an explanation of the story behind LSP, its mechanisms (How it works) and its status. The reason why LSP has been chosen to answer the research question is analysed in section 5. The aim in the next paragraphs is to provide the reader with the necessary background information of LSP to understand latter analysis.

4.1 LEGO Serious Play Background Story

The LEGO SERIOUS PLAY as it is known nowadays is actually the result of a journey that started back in 1994. It was not a conscious strategy of LEGO; it rather started as an idea for internal use, it is the result of seeking new imaginative ways of developing LEGO's strategic direction by unlocking the human potential in the organization (Kristiansen & Rasmussen, 2014).

In 1994, the strategic situation began to get unstable for LEGO, video games were entering the market really hard and children were changing the way they used to play. At this point the company started to feel the impact of these two factors. Therefore, LEGO's CEO Kirk Kristiansen started to pay attention to the company's techniques to develop strategies, because the results were not that satisfactory as expected. Even though the whole LEGO concept was about creativity and imagination, the methods used to develop new strategies and strategic directions lack these two values. (Kristiansen & Rasmussen, 2014).

Meanwhile, two professors from IMD Business School in Lausanne, Switzerland were researching into innovative ways of creating strategies. This business school had previously played a significant role in the leadership development of LEGO. The two professors and also Kristiansen truly believed in two important statements:

- *“People are key to an organization's success, and people can and want to do well.*

- *Strategy is something you live, not something stored away in a document” (Kristiansen & Rasmussen, 2014)*

Kirk Kristiansen agreed to fund professor’s research and created a subsidiary of LEGO, Executive Discovery Ltd, in charge of developing the research, by acting this way LEGO could benefit from the outcomes of the research. From that point on professors started practice their strategy concepts using LEGO bricks rather than words, post-its, and whiteboards. The main basic assumption of their work was that

“If you threw a huge pile of bricks on the board table and asked people to build their strategic ideas their imagination would flourish up like children’s” (Kristiansen & Rasmussen, 2014)

The first experimental sessions using LEGO bricks resulted in a lot of playing, but it seemed that bricks by itself did not ease a more imaginative and creative thinking. The concepts were interesting for the professors However, the process of how to work using bricks was not clear. In order to solve this issue, the executive director of Executive Discovery Ltd, asked the director of research of development of Education at LEGO to assess in the feasibility of using LEGO bricks for such as strategy purpose. This person was, Robert Rasmussen, when he got involved into the research, he began to investigate how he could apply his knowledge about how children learn and develop into an adult environment about strategy development. After a long process, their theories had got more than just a theory and in 2001 the first release of LEGO SERIOUS PLAY was ready and was defined as a *“a thinking, communication, and problem solving technique for groups” (Kristiansen & Rasmussen, 2014).*

Professors from IMD continued imparting session with small kits of LEGO bricks which provided the necessary evidence to confirm a pattern that produced solid results in different groups. At this point the theory had clearly become an already tested methodology. One of the key outcomes of the methodology was that, it helped people to see a clear picture of the entire system of the company. This new overall perspective included team roles, relationships and culture.

Once the development of the methodology was fully tested, it was ready to go to the market by the end of 2001. However, doubts arose, not in the credibility of the methodology but in the business model of the LEGO Serious Method of Play. In 2004, a program for training facilitators for workshops was first established making a special emphasis in the different applications that the methodology disposed of. Later, in 2006, Robert Rasmussen had come up with some extra application techniques in order to increase the number of topics that LSP could cover. Finally by 2010, a certification program had been established, this is the one that still use nowadays. (Kristiansen & Rasmussen, 2014)

In 2010 the main struggling point was that Executive Discovery Ltd had achieved the responsibility of bringing the methodology from the research to the market. In this regard Kjeld Kristiansen and LEGO provided all the funds to start up; he had decided to not integrate Executive Discovery in the LEGO structure for some reasons. First one is that a project like this one would never fit into the LEGO's mass production process of toys. Second reason is that it was very hard to estimate the business potential of LSP, keeping the project outside LEGO mainstream they were able to minimize the risks. Third reason is that, Kjeld Kristiansen wanted LSP to be a long lasting idea rather than a project with some short period enthusiasm (Kristiansen & Rasmussen, 2014).

First attempt to market it was a business model in which organizations would sign a partner contract; Executive Discovery then would authorize facilitator training. But they soon realise that the value of the method does not come from the LEGO bricks itself but from the combination resulted from bricks and facilitation process. Thus, the first facilitators were trained in 2002. However at the end of the 2003, the figures had no achieved the expectations and it had become very difficult to get rid of the “toy” image for kids. So in this point, December 2003, the management of Executive Discovery Ltd decided to stop because the business setup was proved to not be cost efficient and the structure of the company non adequate. (Kristiansen & Rasmussen, 2014). At this moment LEGO Company acquired all the intellectual property.

2004 was the year in which LEGO was actually fighting for its own surveillance, thus there was little attention on the LSP project. However, thanks to all the previous years, LSP had gained several ambassadors. The most important aim at this moment was to rethink the former business model in order to be able to grow the business organically but cost efficient with the lowest possible level of investment, this resulted that LSP business had recovered by the end of 2005.

From 2005 LSP continued its steady growth with some ups and downs, by the end of 2007, LSP tried to provide consultancy services however it did not succeed. It seemed that, even though the methodology proved to be efficient, they hadn't found a satisfactory way of commercializing. In 2008 the situation had got unstable. Since the very beginning of the project the idea was that LEGO would always remain in total control on certifying facilitators and sales of bricks kits, it was assumed by LEGO that the brand could get damaged otherwise. However in 2010 this assumption changed, and they decided to do a more open strategy, like if it were open source software, this strategy opened up the access to LSP. LEGO decided to give a two years trial to this new strategy. After this trial the result was very satisfactory, the LEGO facilitator's community had definitely grown maintaining the quality of the brand.

This facilitator community consisted in people from all around the world resulting in proving the methodology in Europe, Asia and the Americas. Nowadays LSP is a world-wide methodology that uses playing techniques for adult settings working environment for creativity purposes.

4.2 LEGO Serious Play Mechanics: What is it? How it works?

It is important to address the questions of what is LSP and how it works. LSP is a method based on play that offers means to a group for sharing ideas, assumptions and understandings; in order to engage in meaningful conversations and discussions with the main aim of working out valuable solutions to real problems in organizational settings (LEGO Group, 2010).

The LSP method is imparted in workshops directed by facilitators, these workshops usually take at least one day, however since time in business is extremely precious, at its shortest it can take three hours. Nevertheless it has been found that workshops conducted in shorter periods tend to outcome lower quality results. (LEGO Group, 2010)

Additionally the strength of the method lies in the cycle of the workshops, which is comprised of, building with LEGO bricks, reflection and collaborative learning. Moreover, the reader should be aware of what LSP is and what is not. It is not a method for ice-breaking activities, although it can be used for such a purpose, it has not been designed for that. LSP is not a method for simply shifting diagrams from paper to three dimensions by the usage of LEGO bricks. LSP is a method that can't be performed in an hour; it requires much more time and complexity. Finally, LSP is not about persuading and communicating one unique point of view but to enhance everybody's opinion trough LEGO bricks. (LEGO Group, 2010)

As it has been previously mentioned, LSP enhances participants to construct valuable reflections in a dialogue process. In this structured process participants use LEGO bricks to actually build models which express thoughts and ideas. In order to provide a better understanding of LSP, in the next paragraphs the core concepts of LSP are briefly explained. (LEGO Group, 2010) These concepts are:

- Process structure.
- Participant's etiquette
- The role of facilitators

(LEGO Group, 2010)

The process structure of LSP builds upon a learning process that aims to ensure that people take ownership of their own learn, and also learn the most. It is composed of four basic steps trough which participants go during workshops.

1. First step: is about helping people to connect to what they are about to explore by understanding the actual context and meaning of it.
2. Second step: This step refers to involving people in a process in which they create products that are connected to their exploration; this implies their former knowledge, reflections and skills.
3. Third step: regards helping people to reflect on their own creations and look deeper into their exploration in order to gain novel insights.
4. Fourth step is where people connect their recently gained knowledge into new exploration.

(LEGO Group, 2010)

By following these steps iteratively, people learn in a more profound way enhancing them to take this recent knowledge to the next level. Therefore every LSP process goes through these steps; which are embedded in three phases: Challenge, Building and Sharing.

Phase Challenge: The purpose of the workshop is previously known by participants, then, when the process starts, the building challenge is posed to the attendants. This is done by the facilitator asking people to build a model using LEGO bricks that express their thoughts and ideas responding to the proposed challenge. (LEGO Group, 2010)

Phase Building: This phase refers to participants building their own answers in response the building challenge. In this process of construction, people also give meaning as well as narrative to their models, thus components within the models become metaphors. In addition, in this phase each single person in the workshop goes through the already mentioned reflection process. This building phase is expected to be both inspiring and supportive to the reflection process; by using the hands to build up models participants can easier access to knowledge stored in their mind set. (LEGO Group, 2010)

Phase Sharing: The reason behind this phase is providing participants the possibility of telling their stories and assigned meaning to co-participants. This is done by single participants, one at a time, sharing their significance. This process of sharing is a reflection process in itself because people explore their own reflections more closely. It has also a reflection perspective for listeners because they gain new ideas. It's crucial that each person's voice is heard and that everybody shows their opinions and that they are listened. This is for two reasons, one is to create a shared understanding of the situation and the other one is that people take ownership over their models and ideas. Eventually all this process will end in solutions and actions to be implemented. (LEGO Group, 2010)

The etiquette is about the set of principles that LSP is based on, these principles are an important part of the methodology and they are managed and controlled by the facilitator. The principles are built upon central values to LSP and they state that.

- *“The answer is in the system. Therefore, the LSP method is all about participants expressing themselves and listening to each other.*
- *The multitude of contributions to the dialogue is the important part. The method has the overall goal of getting participants to express their reflections and thoughts — never to produce ‘correct’ answers or facts.*
- *There is no ONE right answer. Everyone has different views, and this is a good thing. The process enables these different perspectives to come out in the open without anybody saying which is ‘right’ or ‘wrong’.*” (LEGO Group, 2010)

Last but not least, the facilitator has such an important role in the whole process in order to lead it to a satisfactory end, to do so; they must follow a code of conduct.

- Facilitator must maintain the flow in the process and should be process oriented while being aware of participants needs along the process⁶.
- Facilitator should state the building challenge in a way that is fully clear and that serves for the workshop's process.

⁶ The concept of flow is explained later in this section

- Building tasks should always be completed individually before taking it to the group level. The reflection process is thought to follow a path from individual reflection to group reflection.
- Models should be used actively in a way that the facilitator looks for the answers and the details about their stories, thoughts, ideas and reflections behind the models. When models are used actively a constructive reflection rise up along the process therefore the focus should be put in the models.
- Finally, everyone must have the option to explain their own model. It is crucial that facilitators ensure that stories are listened, and recognized.

(LEGO Group, 2010)

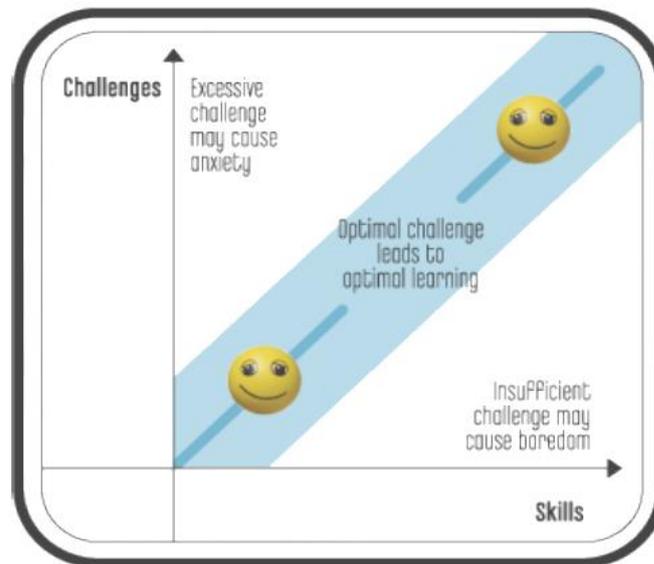


Figure 1 (LEGO Group, 2010)

At this point of the document, and after explaining the core concepts of the LSP method, the reader should already have an idea of what LSP and how it works. Still there is once concept of vital importance in LSP workshops. The efficacy of the method is partly based on this concept. This concept is called “flow”; the theory of flow was developed by (Csikszentmihalyi, 1990) and basically states that individuals gain the most from a learning process when there are both commitment and enjoyment. Flow theory says that if learning is not enough challenging individuals get bored, on the other hand if people are presented with a too difficult task they tend to loose understating and grasp of the situation because they get anxious. Therefore

humans feel good when assignments are optimally presented, neither too difficult nor boring. Facilitator's job is to ensure that individuals are in the optimum position of flow (LEGO Group, 2010). See Figure 1

4.3 LEGO Serious Play Status

This section clarifies the status of LSP usage, what industries uses, composition of facilitators, business sectors etc., however, since LSP is a fairly new methodology there is no, to author's knowledge, a huge body of literature referring to LSP. According to (Frick, Tardini, & Cantoni, 2013) publications about LSP can fit into two big categories.

- Publications that focus on the theories and concepts underlying the LSP method like e.g. Play; and also the method itself. History
- Publications about applications of LSP, cases, research findings etc.

There are also publications that first explain the concepts and then the case merging both categories.

In order to present the status of LSP, the white paper of (Frick, Tardini, & Cantoni, 2013) has been used. This paper was done upon a survey in order to establish a state of the art of LSP in Europe. The main goal of the survey was to understand who is using LSP in Europe and to what purposes. It was addressed to 89 facilitators from all around Europe. Obviously, a worldwide survey would provide more comprehensive insights; nevertheless this survey provides enough insights to make a picture of the status of LSP use. By showing how LSP is used in different sectors, the fact that LSP is the most spread way of playing in organizational settings gets supported.

First main finding of the survey was about the status of facilitators⁷, 61.9% reported to be independent workers while 47.6% develop LSP being employed by a company, a list of 52 companies resulted from their answered but it hasn't been published. Figures show that a considerable high number of companies value LSP in such degree that they have decided to fully dispose of an in-house facilitator. This figure is particularly revealing when it comes to play in organizational settings since, to author's knowledge, there is no other way of play that extended in the business

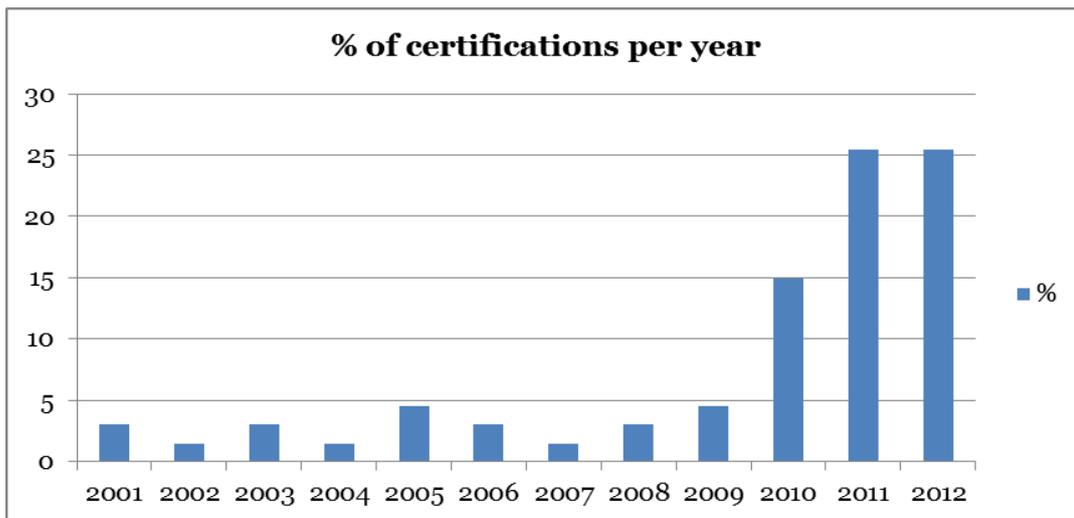


Figure 3 (Frick, Tardini, & Cantoni, 2013)

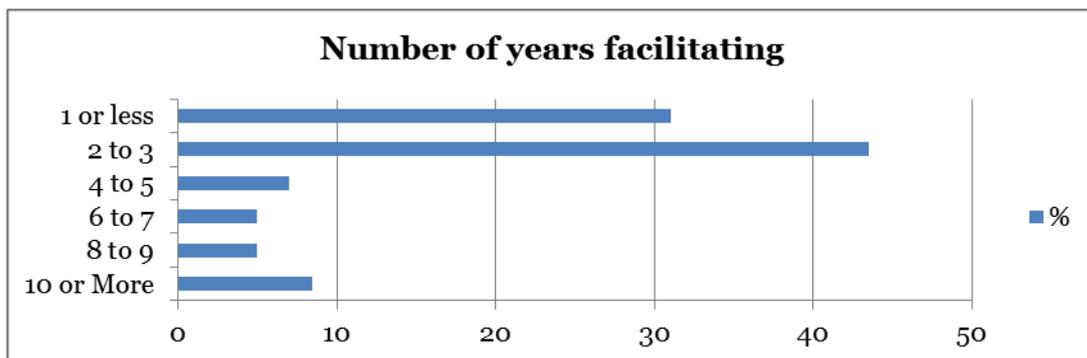


Figure 3 (Frick, Tardini, & Cantoni, 2013)

community. This supports the fact that, in order to understand the mechanism through which play impacts organizational creativity, LSP is the most adequate case to study.

⁷ More than one answer allowed

Second finding of the survey refers to the evolution that the popularity of LSP has suffered since it was first launched, see Figure 3, this graph shows the results of the answer, *when did you obtained your certificate*, as it can be seen the popularity of LSP measured in % per year has increased in the period surveyed, particularly from 2010. Graph in Figure 3 can be seen together with graph in Figure 3 where it can be noticed that most respondent facilitators have been imparting LSP for less than 3 years. Taking these two graphs together lead to a clear conclusion, LSP is a new method that has become popular in recent years, whether this grow will last in time or not isn't clear though. So far, in terms of playing in organizational settings it's the most use method, and according to the interviewees; from the three interviews conducted for this Master Thesis, its popularity is owed to the fact that LSP offers solid results.

Third main finding of the survey concerns the purposes of LSP; in other words, what is actually LSP being used for. The vast majority of facilitators use LSP for consulting and/or training purposes, accounting 83.3% and 73.8% respectively, notice that more than one answer was allowed. Additionally some facilitators reported to use LSP for other purposes like team building, team development, strategy development, research, coaching, business models, innovation, product development, future scenarios and change management. The survey reveals that LSP is used for many different purposes always in organizations, this support the fact that by studying LSP as a form of play we can get to understand the mechanism trough which play impacts organizational creativity.

Fourth finding of the survey has to do with the business sector in which LSP is being applied. In order to find out this, facilitators were asked to write the business sector in which they actively practice LSP (more than one answer allowed), as it can be seen in Table 2, even though Education and Manufacturing account the highest figure, LSP is being used in a wide range of sectors. Furthermore, within the "Other fields", respondents referred to pharmaceuticals, universities, media, information and technology, design, entertainment, aviation, arts, non-profit organizations, life

sciences, food industry etc. By looking at this figure it can be stated that LSP is used across different business sectors.

However when it comes to size, the answers were not that homogenous across the spectrum. It can be seen in Figure 4 that mostly, facilitators work with companies with more 250 employees, 65.5% while only 40.5% reported to work with micro-companies with 10 employees or even less. Figures show that big companies are using more LSP than small companies, it might be because, if you assume that big size companies dispose more resources than small, this could be one reason. Nevertheless, finding reasons of use is not the purpose of this Master Thesis research.

Business Sector	%
Education	60,7
Manufacturing	40,5
Public administration and defence; compulsory social security	36,9
Health and social work	33,3
Other	32,1
Transport, storage and communication	26,2
Other community, social and personal service activities	26,2
Financial intermediation	21,4
Construction	19
Wholesale and retail trade; repair of motor vehicles, motorcycles and personal household goods	14,3
Hotels and restaurants	13,1
Electricity, gas and water supply	11,9
Real estate, renting and business activities	11,9
Extra-territorial organizations and bodies	9,5
Agricultural, hunting and forestry	6
Mining	3,6
Private households with employed persons	2,4
Fishing	1,25

Table 2 (Frick, Tardini, & Cantoni, 2013)

To sum up, in this subsection some figures supporting the fact that LSP could be the most used method when it comes to play in organizational environment have been presented. It's clear that LSP has been growing since it was first launched and its growth doesn't seem to stop soon due to its apparent strong efficiency to output results (Mercuri, 2015; Grassler, 2015; Kistenmacher, 2015). Therefore, the decision of studying LSP as a form of Play in organizations in order to find out the mechanism of play to influence organizational creativity is supported by these figures; LSP seem to be sufficiently used across business sector to take it as a study case for this Master Thesis's purpose.

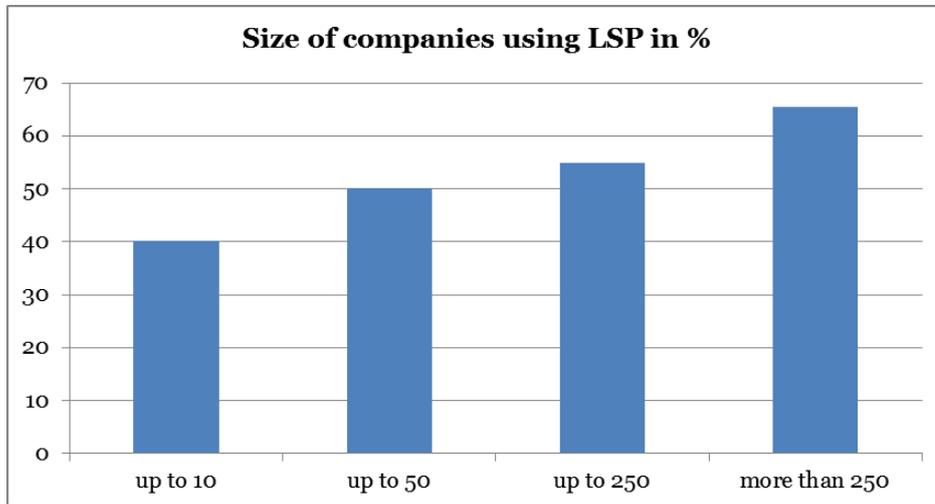


Figure 4 (Frick, Tardini, & Cantoni, 2013)

5 Analysis

This analysis section is composed of four subsections. The section 5.1 analyses the definition of the theoretical framework and discusses whether the elements of the definition are present in LSP in order to conclude if LSP can be considered as play. In the section 5.2 we draw on the conducted interviews to analyse LSP from the theoretical framework point of view aiming to deep in the mechanism trough which play as engagement influences creativity. Section 5.3 is about analysing interviewees' answers about diversionary play to get to know how diversionary play impacts creativity. At last but not least, in section 5.4 we draw on the interviews to analyse the relation between job conditions and organizational creativity.

5.1 LEGO Serious Play as a behavioural orientation

In this section we draw on the theoretical framework (2.2.1) to examine whether LSP matches Mainemelis & Ronson (2006) definition for play. This definition states play as a behavioural orientation comprised of five elements: a *Threshold Experience*; *Boundaries in Time and Space*; *Uncertainty-Freedom-Constraint*; *Flexible and Loose Association between Ends and Means*; and *Positive Affect*. Therefore in this section LSP is analysed from this definition point of view, the five elements are briefly explained and discuss one by one.

Threshold Experience is **the first element** of the definition proposed by (Mainemelis & Ronson, 2006); as it has been explained in the theoretical framework section, play is accompanied by the awareness that it is distinct to real life. This means that when we play we know that we're in front of something that it's just not different to everyday routine but also different to reality, there is a clear component of awareness. For instance, during a play-fight a punch, even though it has real physical consequences, we don't treat it as if it was real because players are aware they playing situation. Therefore play is to stand at a threshold point between two estates, reality and non-reality.

In this sense LSP is clearly an in-between situation of reality and metaphors. When participants build their individual or group models, they are actually playing with LEGO bricks and components that correspond to real elements in reality. However play transforms the nature of those elements. Let's take as example a LSP workshop for strategy development, by using LEGO bricks and playing with them, the nature of the real elements of strategy gets transformed ending up in a situation which is more manageable because it becomes *less real*. It can also be explained in other way, play is a space defined between inner and outer reality providing a perfect scenario for experimentation.⁸

Overall, the element of *Threshold Experience* states that when we play we do it with real things but these things are not treated as such. Thus, considering previous explanations of LSP mechanics, there is little or no doubt that LSP is a method that treats reality as if it wasn't. Indeed it can be stated that LSP fulfils the element of threshold experience proposed in Mainemelis' (2006) definition of play

In the theoretical framework it was already explained the meaning of **the second element** *Boundaries in Time and Space*. As a quick recap, it can be said that playing situations occur in particular time and space that has been previously formalized for such a purpose. These so-called *Time and Space Boundaries* have the role of separating playing situations from real life; this is done by accepting behaviours that wouldn't be accepted in a non-playing situation, and by diminishing social rules. Indeed, *Boundaries in Time and Space* make possible to create a playground in which people feel free to express and play regardless social, structural, hierarchical constraints.

LSP seems to clearly match this element of the definition for different reasons. First of all, LSP physically separates playing from normal life; which is done through the workshops that take place out of everyday routine. By imparting LSP sessions in a workshop-like manner, a clear differentiation is done between real life and playground. Participants get aware that they are in front of a playing situation.

⁸ For further explanation see 2.2.1

Second is that LSP sessions get legitimized due to the fact that the decision of actually incorporating LSP to a company's activity is taken by a relatively high management level (Kistenmacher, 2015). Obviously, the level at which the decision is taken varies from one company to another; nevertheless, in general, the decision is normally taken by a superior hierarchical level in reference to the participants. (Mercuri, 2015). This somehow legitimates LSP sessions without causing a guilt feeling in attendants.

Finally, LSP, workshops are structured and conducted in a way that players feel free to play with their work away from established structures. The LSP process establishes formalized boundaries in time and space for people to play; as it was explained, participants first build their models individually which allows them to fully explore their own ideas, thoughts and reflections. Then, the facilitator must ensure that all voices are heard equally regardless hierarchical roles within the organization. All in all, it seems to be clear that LSP has the *Boundaries in Time and Space* element.

The third element of the definition of this Master Thesis's theoretical framework is the *Uncertainty-Freedom-Constraint*. This basically refers to the fact that the majority of forms of play involve some degree of uncertainty or unresolved situation, additionally; this uncertainty inherent to play is attached to both freedom and a constraint (2.2.1). This means that it allows players to dispose of a certain degree of autonomy, while at the same time; play imposes its own constraints in the form of rules. These constraints are accepted by participants.

LSP has this *Uncertainty-Freedom-Constraint* aspect. Participants, in the challenge phase, are presented in front of an unresolved situation to which a solution must be sought; facilitators should present these challenges in a way that they serve for the purpose of the workshop maintaining the flow. As far as concerns to the *Freedom*, attendants dispose of it to construct their models, first individually and then collaboratively, as long as the challenge is addressed by the model there is supposed to be freedom for building. Last but not least, there are also constraints that have been established in order to gain the most from individuals. For instance, the use of LEGO bricks is a constraint itself; however this constraint is thought to yield the best

possible creative outcome from models as well as from workshops. The scientific basics of the constraints of the LSP method have been published by *Executive Discovery*, in the document (Executive Discovery Llc, 2002) in which they explain why things are as they are in LSP.

The fourth element of the definition is *Loose and Flexible association between Ends and Means*. To briefly sum up what it was explained in 2.2.1 section play is not defined by the lack or presence of goals but because play is motivated by seeking of efficient means to satisfy a fixed goal in a reliable way (Glynn, 1994). In LSP, people are asked to build models that are metaphor of their concept of reality that would suppose an efficient and reliable mean to reach a fixed goal; which is actually defined by the facilitator in accordance to workshop purpose. Therefore, in this sense, LSP has the fourth element of the definition.

Finally the **fifth element** is the *Positive Affect*; this states that play involves positive affect that varies in its degree (relaxation, joy, fun, emotional relief, etc.) However, more specifically, what it is often positive when it comes to affective terms is that players find in playing situations a safe place for the expression and transformation of negative feelings.

LSP offers participants to incorporate to their models things that might be difficult to communicate by other means. Take as example, an employee who is aware of improvable aspects of his every day working tasks; he has ideas about how to improve them. However, due to the lack of options to transfer his ideas he has not share it with superior levels. This person would experiment *Positive Affect* in LSP workshops because he would be able to translate his ideas, thoughts and reflections in the models.

Nevertheless, as it was explained, play might also lead to negative emotions like anxiousness. To tackle this potential negative feeling, facilitator must ensure that he is generating the optimum flow (Section 4.2.) Therefore, it can be stated that that LSP entails *Positive Affect* as long as the facilitator guarantees a good flow in accordance

with the flow theory and follows the etiquette's values; which have been defined to make LSP a positive experience.

To conclude, according to (Mainemelis & Ronson, 2006) not all five elements have to be present to transform an activity into play, however, the more the presence of elements the more the activity becomes a play. Thus, considering this statement, and the above discussion, it can be stated that LSP is actually play in the sense of this definition by coping the five elements.

5.2 LEGO Serious Play as engagement and creativity

The purpose of this section is to analyse data from the interview in order to understand how LSP influence organizational creativity. We go through all mechanisms posed.

The **first mechanism** through which play impacts creativity is through five creativity-relevant processes: *problem framing, divergent thinking, mental transformation, practice with alternative solutions and evaluative ability*. It's important to recall that during interviews only three of these processes have been discussed, this is because, when preparing the questions for the interview in collaboration with respondents, one of them, the one with more experience suggested that it was going to be difficult to answer and it we were not going to clarify anything but create misunderstandings. This suggestion was accepted because it was considered as relevant due to the experience of the facilitator and also because he had read the theoretical framework paper. Also it's not the purpose of this section to explain these concepts, which has been done in section. (2.2.2) Instead the section analyses this mechanism drawing on data from the interviews.

LSP has been clearly designed aiming to help people to frame problems differently. According to (Executive Discovery Llc, 2002), a business, company or organization is more than a building and the people inside; it is a network of interconnections and relationships at different levels. Transforming such abstracts concepts into two

dimension models in the form of graphs, charts, flow charts, diagrams etc. often fails to grasp the nature of the company; same happens for computer simulations made out of statistics models. It seems to be very difficult to fully comprehend organizations as a whole with traditional tools.

LSP is thought to represent the complexity of real world business situations by using LEGO bricks models. Therefore in the words of (Executive Discovery Llc, 2002) people in LSP workshops see business as a whole system and see things that they couldn't see before: they can visualize business in a more holistic way.

However, what it was just explained about framing problems differently, is what (Executive Discovery Llc, 2002) states based on the learning theories behind LSP. We must suspect that this statement could be biased. In this regard, the conducted interviews provide the data necessary to test this statement as well as Mainemelis's theories. When referring to problem framing, interviewees responded stating that LSP definitely does help to frame problems differently.

“I've been in workshops where basic conflicts about point of views were solved (...) the effect of play is huge” (Mercuri, 2015)

“It's one of the best methodologies I know to help people to frame problems in a complete different way” (Kistenmacher, 2015)

“I think it helps a lot, although some people need a bit of time (...) Seeing problems from different perspectives usually happens when merging models (...) Literally you can walk around and see the problems from a different angle (...) They re-frame all the time” (Grassler, 2015)

With this data from the interviews it can be stated that LSP helps in re-framing problems. However, it should be remarked that LSP is a methodology that has been perfected since 2001 with up and downs and that also has an educational science concepts behind it (Executive Discovery Llc, 2002). Thus, even though there is evidence to support that LSP enhance re-framing problems, this could be due to the fact that LSP is a well-developed and proved method where the facilitator plays a crucial role. Whether other types of play have the same degree of impact on reframing problems is something that cannot be said at this point without further research.

The other two creativity processes tested were the ones that suggest that play helps when practicing with alternative solutions and enhance evaluative ability. In this regard, if you look closely at the LSP process structure depicted in section 2.2.2 people get continuously through reflection and exploration. Particularly in the third step people reflect on their own creations; during this reflection people deeply think about their models, make changes, remove bricks, add them, incorporate new components until reaching a satisfactory model at the individual level. Once, individual models are created they are shared and, therefore, subject to be evaluated by other people's perspective, also when models are merged, people practice with different solutions.

In the interviews there is evidence supporting the fact that LSP helps to practice with alternative solutions and evaluate them.

“It helps to evaluate different alternatives, it could be because of the way I use LSP. If I have time I stay with the shared models, I try to avoid strictly team building, team building happens, you want them to learn how to team, that's what I look for (...) In larger groups one team is encouraged to challenge and seriously try to question the other group's model. (...) the etiquette of LSP makes that these challenge ends up being a conjunction of both criticizing and building upon other ideas” (Mercuri, 2015)

“I think that, if you need numbers, I'd say it's 80% - 90% positive in the way it helps to evaluate and practice (...) In any group there is always that person who doesn't want to play, but for those who are engaged it's 100% positive” (Kistenmacher, 2015)

“Definitely, this is the purpose of LSP (...) once in a co-creation workshop with 8-9 people we ended up with approximately 40 alternative solutions” (Grassler, 2015)

When looking at the data from the interviews, it can be noted a consistent opinion among interviewees regarding both practice with alternative solutions and evaluative ability so that we can conclude that play in the form of LSP clearly influences these two creativity-relevant cognitive processes. However, it should be remarked that facilitators have made a particular emphasis on the fact that playing collaboratively is especially useful when practicing and evaluating. While players provide new alternatives other players evaluate them. This raises the question: Are other type of play where the group doesn't play an important role that effective about influencing the practice and evaluation of alternative solutions? We must suspect that play that not involves groups might not be effective as LSP because players wouldn't be able to

gain external insights and they would just evaluate their work on their own, which seems to be less enriching.

In conclusion, LSP does impact three out of five the creativity-relevant processes tested, *problem framing, practice with alternative solutions and evaluative ability*. Nevertheless we should expect a lower degree of impact in play not involving group evaluation.

The **second mechanism** of play impacting creativity is Affective processes. As a brief recap, affective processes impact creativity by influencing cognitive functioning (2.2.2), these affective processes are: *affective pleasure in challenge, openness to affective states, emotional modulation to affect and access to affect laden thoughts*.

As far as concern to the *affective in pleasure in challenge*, we need to refer to the flow theory in section 4.2. Facilitators must ensure that participants are in the optimum flow so that the activity doesn't get too hard or too boring. This means that LSP does consider *pleasure in challenge* and dispose of a tool, facilitator, to ensure that there is *affective pleasure* in the sessions. When asking interviewees about this affective pleasure, there is one common answer among them; there is enjoyment.

“There is the enjoyment of solving problems, enjoyment of being framed with a difficulty and solving it” (Mercuri, 2015)

“They are so engaged in building (...) they have fun and forget (...) they enjoy playing and then they realize they found a solution” (Kistenmacher, 2015)

“I think they enjoy, although they feel a little bit stressed about it (...) they enjoy on the one hand and feel awkward on the other because it's a new process for them” (Grassler, 2015)

It seems like the fact that the facilitators try to keep participants in a good flow makes the *affective pleasure* possible resulting in positive pleasure when facing the challenge, thus, it can be stated that play in the form of LSP impacts creativity by influencing affective pleasure. However, drawing again on flow theory, in other kind of play where there isn't a person in charge of the flow, the influence could be less or even negative because participants could drift to boredom or frustration Figure 1

Regarding the *openness to affective states*, the collected data from interviewees show that during LSP sessions, people experience a wide range of emotions; ranging from frustration to *wow* moments

“Yes I’ve seen all types of emotions (...) even people slamming the door” (Mercuri, 2015)

“They certainly do in two different ways, 1st when they are building they get excited about what they’re doing, and then when they talk about it they start realizing what they’ve done (...) that’s a wow moment.(...) People not good at building might feel frustrated until they understand the method” (Kistenmacher, 2015)

“People experience different kind of emotions, Oh my god moments, fun, yes, totally emotional” (Grassler, 2015)

It seems clear that participants of LSP go through emotions like joy, passion, excitement, anxiety, frustration and even disappointment. Therefore it can be said that play in the form of LSP impact creativity by influencing *openness to affective states*. Moreover, LSP method has been specifically designed in such a way that people gets through all these emotions intentionally; which lead us to think that other types of play that has not been consciously designed for creativity purposes do not have the same degree of impact.

Emotional modulation has to do with players safely expressing because players can choose to some degree the boundaries in which they will act or imagine. Data reveals that participants find LSP the perfect ground for expressing themselves; whether this is because there is an *emotional modulation* aspect in LSP or not, cannot be stated. Nevertheless, if the framework says that *emotional modulation* leads to self-expression, we can only say that there is a high degree of self-expression. Note that all this self-expression is bounded by the purpose of the workshop and the actual LEGO bricks limitations.

“It really helps people to express themselves as much as the want (...) although, it has to do with the group and the facilitator (...) facilitator should lead the group to feel comfortable” (Kistenmacher, 2015)

The facilitator apparently plays a crucial role, which lead us to think that playing situations lacking roles like the facilitator might find difficult to obtain high levels of self-expression.

At last but not least, *affect-laden thoughts* refers to concepts and images containing emotional concepts, they are supposed to provide a bridge between cognitive remote concepts stored in memory. In this particular topic there were some differences among interviewees.

“It depends on the settings; there might be a lot or rarely few” (Mercuri, 2015)

“There is a variation according to different cultures (...) people experience a lot of emotional thoughts but the difference is about the expressions of it (...) There are many comments related to childhood so you know there is emotional aspect” (Kistenmacher, 2015)

“Usually the challenge constraint them to the topic, but there are little comments out of topic” (Grassler, 2015)

Although, data is not that solid like in previous issues, there seems to be evidence that people have affect-laden thoughts when they are playing in LSP sessions. At the same time, it also seems that the presented challenge constraint participants to focus only in solving the challenge, which should be work-related issue, therefore we should expect people to associate working concepts with those ones previously stored in memory but only translate them on to the models if they are relevant to the challenge. Other types of plays without such a challenge constraint could result in people translating more emotional links into practice.

To sum up, there is evidence supporting that play in the form of LSP influences creativity trough affective processes, this could be due to the way LSP is structured; which means that we shouldn't expect other types of play influencing creativity as LSP does.

The **third mechanism** of play as engagement influencing creativity is *Task Motivation*. This mechanism has been explained in section 2.2.2, it basically says that intrinsic motivation has to do with engaging in the task for the inherent satisfaction

you might find on it and that play influences intrinsic motivation and therefore, creativity.

When it comes to LSP the data is clear, there is intrinsic motivation during LSP sessions, although facilitator sometimes needs to make the group comfortable so that people can release their motivation. However it seems that LSP can only increase motivation only during LSP sessions; even though people behave in a different way after sessions, it's in manager's hands to maintain that motivation and address it to other aspects of their jobs. This could be because LSP is a form of play that is narrowly focused on a concrete purpose and is carried out during workshops. We might think that that other types of play that are not that much goal oriented like Google's 20% (Steiber, 2014) rule increase intrinsic motivation generally.

“When people experience a LSP session (...) people behave differently after the workshop, whether this last on time or not I have no way to measure” (Mercuri, 2015)

“It does (increase motivation) but it depends on the manager to keep on working with LSP outcomes” (Kistenmacher, 2015)

With the data available we can only estate that play in the form of LSP increase motivation during workshops. Whether this motivation lasts on time is unknown even though the LSP experience, according to interviewees it changes participant's mind-set.

Fourth mechanism of play influencing creativity is trough improving *Domain Relevant skills*, because play minimizes consequences of learning by providing riskless situations where people are less afraid of making mistakes and they are even allowed to do so. In this sense there is no need to say that LSP comprises a place out of risk for playing; whether this riskless playground increases *Domain Relevant skills* seems to be not that straightforward. It has been mentioned several times that LSP workshops are imparted serving to one specific purpose, which is often decided by a higher hierarchical level and then communicated to the facilitator so that he can prepare the workshop. The fact that workshops are constraint to the purpose also bound the domain in which players can freely act riskless, therefore only an

improvement in the domain related to the purpose should be expected. This lead to think that to fully maximize this mechanism, play should be like Google's 20% rule in which players have no constraints but their own knowledge.

“A lot of different challenges or mini-games in LSP are in a certain learning point, if this learning point is arriving at the brain I don't know (...) people re-shape the way they think” (Grassler, 2015)

Interviews reveals that LSP workshops are life changing in the way that people end up thinking differently, if we consider this new way of thinking like more playful and they apply this approach in their everyday work, then domain relevant skills could improve as long as there is a playground in which risk is not significant. It seems like playful approaches should be accompanied by riskless playgrounds. Thus even though, participants behave more playful after a workshop, if there isn't a room for play in his everyday working tasks, we should not expect an improvement in domain relevant skills.

Last but not least, the **fifth mechanism** is the *Creativity Skills*, to recap about this see section 2.2.2 the part in which this this aspect is explained, all in all the framework ends up suggesting that play help people to increase their creativity skills because when playing they are practicing the cognitive skills of creativity. The data collected for this thesis, support that LSP yields highly creative outcomes; actually this method has been developed, thought and design to perform creative results (Kistenmacher, 2015).

More so, as for the *Domain Relevant skills*, LSP produces a shift in the way people think, they end up thinking in a more creative way, this is what interviews reveals (Mercuri, 2015; Grassler, 2015; Kistenmacher, 2015). However whether this creative thinking is maintained and improved depends on the working environment after LSP sessions take place. Therefore we can conclude that if new plays are to be created aiming to obtain creative outcomes, LSP should be seen as a reference but also the overall environment is extremely important, e.g.(facilitators, flow, challenges, workshops etc.)

In this section we have tested the arguments of Mainemelis (2006) about play facilitating cognitive, affective, motivational and skills dimensions of creativity by analysing LSP; the most playful method (to author's knowledge) regarding play in organizations. Next section we continue testing the arguments referring to play as diversion from work interviewing LSP facilitators, who have been found as relevant respondents.

5.3 Diversionary play and creativity

As it was noted in the theoretical framework section, scholars have traditionally seen diversionary play as inefficient activities because it changes the focus of attention from the core work of organization. However these kind of play activities can also influence creativity, although in more indirect and peripheral way.

The first mechanism of diversionary play influencing creativity is *Psychological Adjustment*; this is thought to help people to adjust psychologically by the facilitation of restoring and compensating functions, for example in jobs that involve cognitive effort diversionary play can facilitate cognitive restoration. These mental breaks are important for the incubation stage in which unconscious processing of ideas happens resulting in a free combination of ideas.

Data confirms that diversionary play does help people to acquire new ideas and make recombination of them. More so, data also points out that this kind of diversionary play must have relaxing effects, all interviewees has pointed out that people get new ideas not because they play but because they are relaxed. Therefore play would be a mean to get into a relaxing estate.

“People are in a cognitive bubble that doesn't allow you to hear those thoughts if (...) if you have the time to listen to those thoughts if the game relaxes you is when you get the time to listen to those ideas” (Mercuri, 2015)

“It happens that if the play relaxes you, you can think better, moments of relax playing are going to produce unexpected results” (Kistenmacher, 2015)

So it can be said that diversionary play can increase creativity as long as the game has relaxing purposes. In addition, these recently acquired ideas thanks to the diversionary play require an environment where the ideas can easily go through the organization. This means that diversionary play might be pointless if there is not actual mechanism to make use of these ideas. This is an important implication for those companies incorporating diversionary activities without considering that ideas generated during diversionary play might come up at any time during work so that companies must provide the opportunity to take advantage of the ideas.

The **second mechanism** is the *Psychological Safety*; this has to do with play eliminating hierarchical relationships and releasing people from normal roles and expected behaviour. The framework suggests that enabling people to relate personally happens by play altering the relationships among employees. These employees would find psychological safety; which is the feeling of being free from evaluation.

“Diversionary play makes people more willing to engage in creative behaviour by helping them to build trusting relationships” (Mainemelis & Ronson, 2006)

Additionally, it seems like social networks theory could contribute to this suggestion. For instance, according to (Sasovova, Mehra, Borgatti, & Schippers, 2010) building relationships may be profitable but it seems unlikely that everyone has the same motivation or ability to do it. More so, some argue that social relationships creates an opportunity for social capital transactions but the fact that they exist implies little about the likelihood of that social capital materializing (Adler, 2002). This means that if relationships don't serve for the purpose of knowledge sharing, which could easily not be the motivation of the relation, relationships via diversionary play can be just useful for friendship purpose and nothing beyond that point. Also weak ties, not trustful, relationships bring advantages because they are more likely to connect people to different clusters of information which results in individuals accessing to new information and ideas (Granovetter, 1973)

So if we assume that people tend to network with people who are like them, homophily, we should expect that people in diversionary play tend to network with

people in the company who they already know. For instance, say a morning coffee break where there is a table tennis for employee, according to social network theory; he or she would play with someone who known very well. Diversionary play most presumably will strength already existing relationships rather than create new ones.

Interviews have confirmed that people in LSP and diversionary play tend to cluster with well-known fellow workers, same department fellow, same room colleagues etc. There is rarely a full integration among different hierarchical levels unless is induced. However, while in LSP the facilitator is in charge of releasing people from hierarchical roles to achieve the *psychological safety* among different organizational levels, in self-managed diversionary play there is no such a role that mixes people. This implies that unless diversionary play is actually managed, it will only enhance making more trustful already trustful relationships, thus diversionary play should be managed in order to avoid this redundancy.

The **third mechanism** of diversionary play influencing indirectly creativity is through the *Organizational Culture*, basically this suggest that if diversionary play is a central aspect of organizational culture, the values and beliefs of an organization ca be showed through play in such a way that they are more concrete and then can be easily transferred. For example, a company aiming to communicate values in relation to creativity can use diversionary play to create such a creative environment. When testing this argument some interesting insights rose up, although there hasn't been a common opinion in the interviewees.

First insight is that people don't really learn company values through diversionary play; they rather bring already known values to the playing situation

“Instead of people learning the culture agenda of the company, it happens the other way around, they bring values to play” (Mercuri, 2015)

This could be because the respondent has developed his work in a corporate environment, so that it's likely that company has done previous efforts in transferring

company values successfully, resulting in employees well knowing company culture. There is a clear implication of this; diversionary play wouldn't be useful to change values when these ones have been successfully spread into employee's mind-set. The extent to what diversionary play can influence already existing values is something that we don't know⁹.

The second insight is that people learn values through diversionary play, however individuals make their own interpretation of values which means that, the message gets distorted. In this case diversionary play wouldn't be that useful to transfer values because people will end up gaining different meanings.

“What's interesting for me it's that people get to understand the values on their own personal way” (Kistenmacher, 2015)

Finally, the last insight is aligned with the framework and confirms that play could be an efficient way to spread company values. However, this could be because this respondent developed his work in a start-up environment where the values haven't really had time to properly settle into people's mind.

“Play itself (...) it's easy to get across the company value, play is definitely much better than a booklet or any other way” (Grassler, 2015)

Then, diversionary play would contribute to spread values depending on the context in which play takes place.

Last but not least, the **fourth mechanism** of diversionary play influencing creativity is through *Social Networks*; diversionary play is thought to connect members of the organization so that it gives people access to remote and diverse information, which are inputs of the creative process. While this could be true, as it was explained in the second mechanism, our data suggest that unless diversionary play is actually managed to connect different people in the organization, employees

⁹ To author's knowledge

will cluster based on homophily which will not provide access to new information. Self-managed diversionary play, according to data, will not result in new relationships among previously unconnected people.

Wrapping up, in this section we have tested the mechanism suggested in the framework for diversionary play influencing creativity concluding that, even though diversionary play might indirectly influence creativity, this type of play should be designed for such a purpose in order to overcome the issues that self-managed diversionary play would lead to otherwise.

Once having analysed both play as engagement and as diversion and its relation to creativity; in the next section we explore the job conditions in which play take place in relation to creativity.

5.4 Job conditions

In this section the analysis draws on interview data to focus on the job conditions suggested by the framework to influence the likelihood that individuals engage in play in the work place, either play as engagement and diversionary. These factors are *Job Complexity, Environmental Threat, Time and Space for play and Individual differences*. To recap theory about the factors see section 2.2.4.

The framework considers *Job Complexity* as an antecedent of play and as an explaining factor of the balance between play as engagement and play as diversion. So in low complexity and monotonous jobs, people would engage firstly in diversionary play. In this case diversionary play will have little effect on creativity because the work itself doesn't require creative thinking. On the other hand, high complex jobs, according to the framework increases the likelihood of play as engagement, which also increases people's creativity through the mechanisms already analysed in section 5.3.

Our data suggest that, it's not that much about *job complexity* but about stress. This is people in routinized jobs end up mentally stressed so that they would engage in diversionary play in order to compensate what work cannot provide. On the other hand is not complexity what makes people get into work as engagement but stress. Employers get to a point in which the stress is at that level that they can't think creatively about their work. At least this is what makes people think in LSP as a method to increase creativity.

“Jobs might be complex but it's definitely the stress what makes them play” (Kistenmacher, 2015)

Therefore, high complex with low stress jobs wouldn't induce people to play. It should be noted that respondents work mainly applying LSP to high complex situations from high complex jobs, thus their answers regarding low routinized jobs might not be that valid and require further research. Nevertheless, creative thinking is often required from this kind of jobs and not from highly routinized, low complex jobs. In the latter, execution is normally what it has more importance.

The second factor influencing the likelihood of engaging in play is the *Environmental Threat*. When organizations feel under threat, they tend to increase their control towards the procedures, centralize authority and conserve their resources. In this kind of situation exploring and experimentation are discouraged. Thus, individuals in companies under threat will feel that it's not safe to play with work; then, diversionary play might happen as entertainment but play as engagement less likely to occur.

Data reveals that, this is partially true, people in organizations feel constantly under pressure (sales, market share, competitors); apparently there is always something that makes employees feel that is not safe to play. In fact, respondents support that nowadays people are extremely task-oriented, and they stick to previous learned knowledge. However, this is one of the factors that make LSP so popular, organizations under threats can allocate a certain period of time and resources to do an LSP workshop to gain creative outcomes to solve a defined situation, by acting this

way, managers obtain creative outcomes with the least possible resources, the most efficient possible way to benefit from play. Actually, respondents have pointed out that they have to do an extreme effort during workshop to make people think out of this efficient task oriented mind-set. Once the workshop has finished, company can implement the outcomes of the workshops while individuals go back to former jobs. Whenever again the company requires a new creative solution for a problem they can again, set a new workshop. Regarding play as diversion, data show that during threat periods, diversion as entertainment is usually seen as non-appropriate behaviour by both fellow workers and managers. To sum up, during threat periods play wouldn't occur unless is set in a LSP like workshop

The third factor is *Time and Space for Play*; this has to do with the legitimization of play by defining a time and space in which people can freely play without being afraid of a potential punishment to their behaviour. Employees will be more likely to engage with play within a time and space that suspends rules and encourage them to play.

LSP is absolutely a legitimized space for playing, interviews reveals that people take some time to engage but they end up fully integrated in the method. They understand that this is a moment for exploring without being punished. However, facilitators pointed out that it takes time to make them feel that this is legitimate moment for such purposes. So if in such a highly playful environment like LSP people still feel not safe to play, in other environments we shouldn't expect people to freely engage with play without the feeling of potential punishment, either diversionary play or as engagement. In conclusion, play should not just be legitimized but also managed due to the fact that people will at first instance be afraid of potential consequences of their behaviours; with the available data we cannot say what are the reasons behind this fear, but it is a common trend.

The **last factor** is the one called *Individual Differences* this refers to something that probably the reader has already thought about, this is that not all persons have the same willingness to play due to the personality traits, so that some people are

inherently more playful than others. This factor has been really difficult to test because respondents don't really spend time enough with LSP participants to deeply get to know their personality. Therefore we refer to studies about personality traits and playfulness like the one of Glynn & Webster (1992). However data reveals that, at least in LSP sessions all people end up engaging into play, note that facilitator puts special emphasis in involving everyone in the process, whether or not this has to do with the personality traits or other factors it's unknown. Also, data exposes that in LSP people engage with different people regardless characteristics.

To sum up, in this section we have analysed the job conditions in which play is more likely to occur and, to conclude it can be said that there is a trend of people being task oriented so that if companies want to exploit the benefits of play, job conditions should also be taken into consideration.

6 Discussion

The overall purpose of this research has been getting to truly understand the mechanisms of play influencing organizational creativity. Across the document, we have analysed LSP, which is probably the most advanced way of using play in organizations, in order to find out how play as engagement works to enhance creativity concluding that this kind of play does influence positively, although it's necessary to manage it for such purpose. It's not sufficient to let employees to freely engage; the company should seriously evaluate how to incorporate play into the activities if the aim is to actually profit from it. As far as concern to diversionary play, it has been found that it might influence creativity in an indirect way as long as this play is managed and designed to overcome the drawbacks that free diversionary play tend to cause.

Also, the analysis reveals important implications, particularly for KK and *Play my day*, by reading the analysis KK can get to understand what mechanism of play contribute the most to obtain creative outcomes, and what's even more important, how that happens. Of course, the results of the analysis show that LSP is a well-designed method based on play to obtain creative outcomes efficiently and that it copes most of the mechanisms of the framework. Indeed it took several years and trials to get LSP to such a level of efficiency; therefore, it seems illogical and also too difficult to create a play that works in the way that LSP does. However, what it could be of benefit for KK is to analyse which ones of the mechanisms can be incorporated in *Play my day* and include them into their future products. For example, drawing on the analysis about diversionary play, it has been found that it induces to creativity via psychological adjustment as long as it has relaxing purposes, thus *Play my day* could offer games with such relaxing purposes.

However, it is crucial for KK to recognize the limitations of this research; the analysis conducted in this document has been done under a case study method, which implies that the result of the analysis cannot be generalized due to the limits of the method itself. Thus, the analysis contributes to understand how play influences

organizational creativity but only for the case of LSP, obtaining more general implications will require further research under a different method.

Moreover, regarding the analysis of job conditions and its relation with play, it can be concluded that conditions should be seriously taken into account when it comes to design play to enhance creativity. This implies that what it could be adequate for one company might not be for other, one-size fits all in this sense seems that will not yield the best possible results.

In regards of the case study, LSP, it has served for understanding how play influences creativity; therefore it has helped to cope with the research question. However other methods using play could also be analysed using Mainemelis' (2006) arguments in order to enrich the findings upon which KK can work. It would also be interesting to see how different play methods work, although, the study of LSP has provided insights enough to understand play and creativity.

In addition, some may argue that the research pays more attention to work as engagement; this is simply because according with the framework, this is the form of play that influences organizational creativity in a higher degree. The analysis of diversionary play has also contributed to understand the mechanisms of diversionary play and creativity. Nevertheless, further research in this sense could be of benefit.

In relation to the theoretical framework, in this research Mainemelis (2006) arguments; which rely on Amabile's (1988) work of organizational creativity, have been used in a deductive way. However this doesn't mean that this is the only or best way of studying play and creativity. We've noted that using a deductive approach has constraint the research only to the concepts proposed by Mainemelis, thus, a research conducted under an inductive approach could result on new mechanisms that have not been considered by Mainemelis (2006).

More so, fun at work literature has not been considered in this Master Thesis because these works does not pay enough attention to play. In other words, fun is just not play

but it can also be produced by many other factors apart of play. Also, if we were to use fun at work literature, most likely will be only focusing on diversionary play. However a research using fun at work theories might outcome new mechanism of play and creativity; which in the end will provide a more comprehensive understanding of the relation of play and creativity.

Another important aspect about this Thesis that can be discussed is the suitability of the interviewees to answer questions about diversionary play. Some could argue that they might lack knowledge and experience to provide valuable insights. However, it has been assumed that, since these persons are truly familiar with play in organizations, they are qualified to answer questions related to diversionary play based on their knowledge about play as engagement. Therefore, for further research we leave asking questions to persons that directly work in organizations with diversionary play. This change of respondents might result in more insights regarding play as diversion.

Last but not least, it's important to recall the relation between creativity and innovation. By the intentional use of play in organizations several ideas can be generated, this seems to be true. However, ideas are abstractions, to become an innovation ideas have to be translated into something that is useful to people; taking an idea from its conception to the real world is known as execution and executing on an idea in order to innovate is the hardest task of innovation; ideas might be easy to find if you compare it with that task that comprises bringing them to reality (Berkum, 2007). Therefore play should always be contextualized as useful to influence creativity but not enough for innovation. Idea generation is only one part of an innovation, probably the easiest.

7 Conclusion

This research has answered the research question providing a clear understanding of the mechanisms through which play impacts organizational creativity. The main finding from the analysis is that play might influence creativity but it has to be managed to such a purpose requiring a commitment by the company; which concerns not only the playing situations but other factors around it. More so, not all forms of play equally influence organizational creativity, well designed and managed forms of play as engagement with work are highly influencing, whereas the effectivity of play as diversion is indirect and also depends on external factors that are not directly related to play.

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Appendix I: Interview Questions

Play as a form of engagement with work.

1. To what degree does LSP help people to frame problems differently?
2. To what degree does LSP help people to practice with alternative solutions?
3. To what extent do people enjoy identifying a problem and seeking novel insights in LSP workshops?
4. To what degree do you think people experience a wide range of emotions in LSP sessions? From your experience
5. To what extent does LSP allow people to express themselves in freedom?
6. To what degree do you experience thoughts containing emotional concept in LSP sessions? From your experience
7. To what degree do LSP plays increase people motivation toward work? From your experience
8. To what extent does LSP helps people to think in a more creative way? From your experience
9. To what degree does LSP influence people's domain relevant skills? From your experience

Play as a form of diversion from work

1. To what degree does diversionary play helps people to recombine and acquire new ideas or insights? From your experience
2. To what extent does play make people unattached to hierarchical roles? From your experience
3. To what degree people learn company's values trough play? From your experience
4. To what degree does diversionary play facilitates the interaction with new people? From your experience

Job conditions

1. To what degree do you perceive people's job as complex? People who play and from your experience
2. To what degree do you believe people stop themselves from playing because the organization requires them to be task focused, goal oriented and efficient? From your experience

3. To what extent do organizations provide with time and space to play? From your experience
4. To what degree do people engage with people different to you when it comes to play? From your experience

Appendix II: Post on online discussion forum

Hi everybody,

I have already introduced myself in previous posts. But anyway I will repeat it. My name is Enrique de Luis; I'm currently taking my M.Sc. in Innovation Management at the Copenhagen Business School. I'm trying to write an assignment that consists in testing a theoretical framework about play as a form of engagement with work, and also as diversion from it. I would like to interview some of you, I guess most of you probably are very busy but I have just 17 questions and it takes approximately 1/2 hour. I truly believe that it could be interesting for you as well as for me. I don't think it will be a waste of time for you. It would be great to do it by Skype call.

Is there any brave volunteer? I would really appreciate it

Ps. I can adapt my schedule to work out the best time for you.

Ps. The theoretical framework to be tested. Is called "IDEAS ARE BORN IN FIELDS OF PLAY: TOWARDS A THEORY OF PLAY AND CREATIVITY IN ORGANIZATIONAL SETTINGS" Mainemelis 2006