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## **Degree Project**

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# Towards a multidimensional model of creativity: an analysis of six models of creativity and the creative process.

*Mot en multidimensionell kreativitetsmodell: en analys av sex  
modeller av kreativitet och den kreativa processen.*

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# Abstract

*Creativity* appears repeatedly in the curricula for the Compulsory School and the Upper Secondary School in Sweden, as well as in the course syllabi for Art Education.

The purpose of this essay is to achieve a better understanding of the building blocks of creativity, in order to widen the range of tools that can be used in teaching situations. Departing from six established models of understanding creativity, the essay attempts to find some common aspects among the models, which can help teachers to unify and organize the models with the ultimate aim of achieving a wider and more comprehensive understanding of creativity.

Close reading is used as the method of analysis and interpretation in order to find common categories among the selected models of creativity. The process of close reading is performed and organized using the structure and concepts of Qualitative Content Analysis (QCA), with an inductive approach.

The analysis of the six models of creativity results in the identification and classification of two common themes: *flexibility* and *bird's eye view*, the combination of which can be used as a way to achieve a more comprehensive, complete and thus enhanced model to understand creativity, which can give teachers a wider range of tools to apply creatively in the classroom.

**Key words:** art education, creativity, models of creativity, sociocultural perspective

## Content

1. Introduction and background.....	4
1.1. Purpose .....	6
1.2. Research questions .....	6
2. Methods .....	7
2.1. Close reading .....	7
2.2. Qualitative content analysis.....	7
2.3. Procedure.....	8
2.3.1. Selecting the literature.....	8
2.3.2. Selecting the six models.....	9
2.3.3. Finding common aspects.....	9
2.4. The discussion of the trustworthiness of <i>QCA</i> .....	10
2.5. Outline of the essay.....	11
3. Theoretical standpoint.....	12
3.1. A sociocultural perspective on learning.....	12
3.1.1. The zone of proximal development.....	12
3.2. Understanding creativity.....	13
3.2.1. Vygotsky's theory of creativity.....	14
4. Exploring six models of creativity.....	16
4.1. The Four C Model of Creativity.....	16
4.2. Wallas' model of the creative process .....	17
4.3. Csikszentmihalyi's systems model of creativity .....	18
4.4. The Six P's of Creativity .....	20
4.5. Urban's Componential Model of Creativity.....	21
4.6. Divergent thinking.....	22
5. Theoretical results.....	24
5.1. Flexibility.....	25
5.2. Bird's eye view perspective.....	28
5.3. Summing up and expanding the framework.....	31
6. Final discussion .....	33

## List of references

# 1. Introduction and background

At the center of this essay lies *creativity*, which is one of the keywords of the 21st century (Kaufman & Beghetto, 2009) and it is also a topic that I consider fascinating and an essential part of my life. I have been captivated by *creativity* ever since I was a child, during my whole life and it certainly gained a new dimension during my education to become an art teacher. Now I have the opportunity to dive deeper into the territory of *creativity* with the intention of acquiring a more profound understanding of this captivating and unique human capacity.

In the Curriculum for the Compulsory School, Preschool class and the Recreation Centre (Lgr11), under the heading “Fundamental values and tasks of the school”, the following is said regarding the responsibility that the school has for students’ creative development:

In partnership with the home, the school should promote the all-round personal development of pupils into active, *creative*, competent and responsible individuals and citizens. [...] *Creative* activities and games are essential components of active learning. [...] The school should stimulate pupils’ *creativity*, curiosity and self-confidence, as well as their desire to explore their own ideas and solve problems. (*Curriculum for the Compulsory School*, Skolverket, 2011, p. 11).

Also in the Curriculum for the Upper Secondary School, one of the central “tasks of the school” is to stimulate students’ *creativity*: “The school should stimulate students’ *creativity*, curiosity and self-confidence, as well as their desire to explore and transform new ideas into action, and find solutions to problems [...] (*Curriculum for the Upper Secondary School*, Skolverket, 2011, p. 5-6).

As for the course syllabi for Art Education the words *creative* and *creativity* also appear numerous times, in the “Aim of the subject” but also in the “Knowledge Requirements”, which is demonstrated in the following two examples:

By working with different types of images, pupils can develop their *creativity* and ability to create images. [...] Teaching should contribute to pupils developing their *creativity* and their interest in being *creative*.  
(*Syllabus for Art in the Compulsory School*, Skolverket, 2011, p. 22).

Aim of the subject: [...] The ability to work innovatively, inventively and with a personal expression as well as to work in *creative* processes.  
(*Syllabus for Art in the Upper Secondary School*, Skolverket, 2011, my translation).

As is clear in the quotes above, ***creativity*** appears repeatedly in the curricula as well as in the course syllabi for Art Education. There is no description or definition of *creativity* in the above cited documents but still teachers are expected to help students develop their creativity and their interest in being creative. They also need to give students the appropriate conditions to deal with challenges in a creative way. However, in order for teachers to be able to teach and help develop creative abilities in their students, teachers must have adequate knowledge and a deep understanding of creativity and the organization of the different components in creative processes. This is necessary in order to be able to provide appropriate guidance and tasks, to be able to fulfill course goals and to work in accordance with curricula.

During my VFT, when working as an art teacher in both the Compulsory School and the Upper Secondary School, I have often experienced that many students have difficulties in getting started with tasks that somehow imply a certain level of freedom, or require the production of own ideas. When allowed to proceed by trial and error some students seem incapable of acting, rather than enjoying the possibility to create and elaborate on their own. Moreover, it is not uncommon to find students who simply explain their incapacity to proceed with a task because they are simply “not a creative person”. Accordingly, I find it of great importance that students are aware of the fact the creativity is not something that only some people possess and others not, but rather something that is present in all human beings and that indeed may be improved and further developed.

To sum up, this essay departs from my interest, my thoughts and reflections on

creativity, and the curiosity to know more about the inherent components of creativity and how to use them in teaching situations.

## 1.1 Purpose

The purpose of this essay is to achieve a better understanding of the building blocks of creativity, in order to widen the range of tools that can be used in teaching situations. Departing from six established models of understanding creativity, the essay attempts to find some common aspects among the models, which can help teachers to unify and organize the models with the ultimate aim of achieving a wider and more comprehensive understanding of creativity.

## 1.2 Research questions

With the above purpose and delimitations the following research question has been formulated:

*What common themes can be found in six models of creativity and how can these aspects help to gain a new and more comprehensive way of understanding and organizing the components of creativity?*

## 2. Methods

In this essay, close reading is the core method of analysis and interpretation of the texts and theories in order to find the common categories among the models. The process of close reading is performed and organized using the structure and concepts of Qualitative Content Analysis (QCA), with an inductive approach.

This chapter will first present the research methods for the essay: close reading and qualitative content analysis. This is followed by a section dealing with the procedure of the essay; how the methods were applied in the different stages of the research: *i) selecting the literature, ii) selecting the six models* and *iii) finding common aspects*. Lastly, the outline of the essay is presented.

### 2.1. Close reading

Close reading can be applied on texts of different genres and it implies performing a critical analysis, focusing on significant details or patterns in order to develop a deep, precise understanding of a text:

The principal object of close reading is to unpack the text. Close readers linger over words, verbal images, elements of style, sentences, argument patterns, and entire paragraphs and larger discursive units within the text to explore their significance on multiple levels. (Jasinski, J 2001, p. 93).

I have used close reading as a method for analysis and interpretation at all the different stages of the essay; that is, when selecting and studying the literature and the six models, and when analysing the models to find the common aspects in the models.

### 2.2 Qualitative content analysis

Qualitative content analysis (QCA) with an inductive approach implies closely

examining and interpreting the content of texts and it is a research method for the subjective interpretations of data from texts through the systematic classification of coding and identifying themes (Hällgren-Graneheim & Lundman, 2012). An underlying assumption within QCA is that “reality can be interpreted in various ways and the understanding is dependent on subjective interpretation” (Hällgren-Graneheim & Lundman, 2004, p. 106). In QCA, the interpretation of a text can imply either trying to understand the content (the “message”) of the text or trying to understand the sender’s intentions, experience, feelings or opinions.

The inductive approach refers to when the theories and interpretations are developed as a result of reading and analysing the data. Instead of having one’s theories decided on beforehand, the inductive researcher allows the themes, categories and theories to crystallize through reading the texts closely and analysing them.

## 2.3 Procedure

As mentioned above, this essay uses close reading as the core method of analysis and interpretation of the texts and theories. The process of close reading is performed and organized using structure and concepts of Qualitative Content Analysis (QCA), with an inductive approach. Hällgren-Graneheim and Lundman (2004) mention a number of concepts or steps used in QCA in order to select and analyse data. Following these concepts the process of selecting literature, of selecting the six different models and finally of finding and analysing the common aspects of the models will be accounted for.

### 2.3.1 Selecting the literature

One of the most basic decisions when using content analysis is selecting the *unit of analysis*, which in case of this essay is the selection of literature about creativity.

According to Hällgren-Graneheim and Lundman (2004) suitable units of analysis are “those which are large enough to be considered a whole and small enough to be possible to keep in mind as a context for the meaning unit, during the analysis process”

(Hällgren-Graneheim & Lundman, 2004 p. 106). This essay’s procedure to select the

*unit of analysis* began with the search for information. I used the search words *creativity* + *teaching*, in order to achieve a first general overview of the vast territory of creativity. I also connected the search word *creativity* with *art education*. As a second step I consulted the databases and the libraries of Malmö Högskola and Lund University, as well as the Public Library of Malmö, and finally selected a number of publications that covered a significant spectrum of theories of creativity relevant for the essay.

### 2.3.2 Selecting the six models

The parts of the units of analysis that contain important information and that are relevant for the purpose and research questions of the study are called *meaning units* (Hällgren-Graneheim & Lundman, 2004). *Coding* refers to giving a meaning unit a name. The *meaning units* for this essay were found through performing several close readings of the units of analysis. I found that some models for explaining creativity and the creative process were recurrent and commonly used and cited by different researchers and authors. I also noticed that some of these recurrent models presented a way of explaining creativity through different components, stages or phases in a very concise way. Through close reading I finally selected the six models (the meaning units) with the aim of covering the widest spectrum possible relevant for the study and in accordance with the theoretical framework of my essay. The *coding* of the meaning units derived from the names of the six models selected:

i) The Four C Model of Creativity, ii) Wallas' model of the creative process, iii) Csikszentmihalyi's systems model of creativity, iv) The Six P's of Creativity, v) Urban's Componential Model of Creativity and vi) Divergent thinking.

### 2.3.3 Finding common aspects

Creating or finding *themes* is a way to "link the underlying meanings together in *categories*" (Hällgren-Graneheim & Lundman, 2004, p. 107). Creating *categories* based on *themes* is the very essence of QCA. A *category* is "a group of content that shares a

commonality” (Hällgren-Graneheim & Lundman, 2004, p. 107). The *theme* can be described as a “recurring regularity developed within categories or cutting across categories” (Hällgren-Graneheim & Lundman, 2004, p. 107).

As for this essay, repeated *close readings* of the six models selected were performed, with the clear intention of finding common themes. First the focus was put on finding what is specific and unique for each of the six models. Another step was to focus on each of the components, phases and stages of every model individually in order to then understand how these different components, phases and stages relate to one another inside of each one of the models. Having done this the next step was to compare the different models with each other taking into consideration their specific and unique characteristics as well as the sort of inherent relationship between the components within each model and trying to find common traits and intersecting points between any of these factors. Moreover, from the beginning and during the whole process of close reading of the literature, different text fragments that caught my attention were selected, cut and pasted in a document. Going back and forth between these different analytical strategies two common themes among the models began to crystallize, in accordance with the inductive approach. One of these aspects refers to a high degree of mobility present in the components, levels or phases of the six models, and the other aspect refers to the inherent capacity in all models of providing the big picture. Based on these two themes the categories *flexibility* and *bird's eye view perspective* were created.

## 2.4 The discussion of the trustworthiness of *QCA*

As has been mentioned above, Qualitative Content Analysis involves the presumption that “a text always involves multiple meanings and there is always some degree of interpretation when approaching a text” (Hällgren-Graneheim & Lundman, 2004, p. 106). This is a fundamental point when discussing the trustworthiness of the results in *QCA*. Hällgren-Graneheim and Lundman (2012) explain that qualitative studies part from the ideas that there is no absolute truth, the surrounding world is complex, contextualised and constructed, and researchers have a subjective role in qualitative studies. The above points are sometimes argued to constitute a weakness of qualitative

methods and thus often used as critique against QCA. However, on the other hand qualitative studies are argued to enable deeper interpretations of data. Hällgren-Graneheim and Lundman (2012) point out that some advantages with qualitative content analyses are the fact that they can be performed at different levels of abstraction and interpretation, as well as adapted to different purposes. The authors mean that extensive interpretations of texts may help find categories and themes since interpretation can increase the possibilities to see connections and patterns in texts (Hällgren-Graneheim and Lundman, 2012).

In qualitative research the concept of *credibility* is used; the *credibility* of the results of a study. It is important for a researcher to show the credibility of their results (Hällgren-Graneheim & Lundman, 2004). Credibility has to do with *validity*, which refers to the level of “truth” of the results of the study. A careful and close description of the results of the analysis will increase the validity of the results of the study. During the analysis I was very careful with choosing the themes and making sure they were relevant for the purpose of my essay. Moreover, I try to perform a close description of procedure, selection and method of analysis in order to make it possible for readers to judge the validity and credibility of my interpretations and results.

## 2.5 Outline of the essay

The essay relies on a sociocultural perspective on learning and of creativity and this theoretical standpoint (as for how to understand the concepts of learning and of creativity) is presented and discussed in chapter 3. The six selected models for how to understand creativity are explored in chapter 4, and thereafter analysed with a focus on finding common themes in chapter 5. The final discussion in chapter 6 sums up the analyses and results, discusses the concordance with a sociocultural theory of learning and creativity as well as presents conclusions and ideas for further research.

## 3. Theoretical standpoint

In this chapter the theoretical framework for the essay is presented, as for how the concepts of learning and of creativity are understood in the present study.

### 3.1 A sociocultural perspective on learning

This essay departs from a sociocultural perspective on learning and development. The sociocultural theory was put forth primarily by the Russian psychologist, Lev Vygotsky. According to Vygotsky as well as the sociocultural perspective, learning and development is a result of and takes place through social interaction with others. Learning always takes place as a result of participating in social interaction with others (Säljö, 2005). Hence, it is the interplay between individuals that is significant and that will decide the level of success of a learning process (Säljö, 2005). The teacher's/adult's actions are therefore of great significance for children's development and learning. The adult — as the more experienced and competent part — guides and tutors the child in different cultural and social activities. Adults' and children's interaction and in particular the adult's guidance and supervision of the child, is significant, in order to for learning and development to occur (Rogoff, 1990; 1998, in Mars 2016).

#### 3.1.1 The zone of proximal development

According to Vygotsky human beings are always heading to conquer new ways of thinking and new ways to understand the world. We make use of the knowledge and the experience that we possess in new situations and that provides us with certain skills. But this knowledge and experience are also the resources we have to try to acquire new knowledge in interaction with others. As opposed to for example Piaget's theory of cognitive development, there are no specific biological "phases" or periods for learning and development, but development and learning are possible aspects of all interaction (Säljö, 2005). This brings us to one of Vygotsky's most central conceptions: the zone of

proximal development, which implies the sphere between what an individual already knows and manages on her own without help from others, and the new knowledge which is within reach of the individual to learn, with help from a more knowledgeable person or a teacher: “The zone of proximal development defines those functions that have not yet matured but are in the process of maturation, functions that will mature tomorrow but are currently in an embryonic state.” (Vygotsky, 1978, p.86).

Consequently, the more experienced person or teacher’s role is of great significance for a child’s learning process, in providing a specific form of guidance at a specific moment, in order for the child to be able to solve a task or a problem. The teacher should provide suitable tasks for the child/student; tasks that are within the child’s proximal zone of development: the child can solve parts of the task, but “borrows” competence from the teacher (Säljö 2005, p.123). This conscious guidance in a learning process performed by the adult is sometimes called “scaffolding” (Wood, Bruner & Ross, 1976). The more experienced or competent party, often the adult, guides and tutors the child by offering the physical and intellectual tools that they consider possible for the child to use and handle at a certain point. Scaffolding includes a more experienced party who possesses knowledge about the issue, what tools are adequate and when these tools are to be used at that particular point in the learning process (ibid), in order for the child/student to reach higher in his/her proximal zone of development.

## 3.2 Understanding creativity

There are many different theoretical perspectives and areas of research of creativity and hence many different definitions. Different perspectives capture different aspects of this phenomenon, but most are built on two basic concepts: originality and appropriateness. (Baer & Kaufman, 2012). Creativity in this way refers to “anything someone does in a way that is original to the creator and that is appropriate to the purpose or goal of the creator” (Baer & Kaufman, 2012).

In this essay the theoretical point of departure will be the sociocultural perspective of creativity, where creativity is something that all human beings possess and the creative process something that can be developed and enhanced (Vygotsky, 2004). Hence it is of

great importance that teachers know how to support and help students develop and enhance this ability of theirs. Understanding the creative process gives teachers a better analytical understanding of the different phases implicit in creativity.

### 3.2.1 Vygotsky's theory of creativity

According to Vygotsky (2004), creativity is something that is present in *all* human beings - adults as well as small children. In the opening phrase of his book *Imagination and Creativity in Childhood*, Vygotsky describes the creative act as any human act that produces something *new* - physically, mentally or emotionally:

Any human act that gives rise to something new is referred to as a creative act, regardless of whether what is created is a physical object or some mental or emotional construct that lives within the person who created it and is known only to him. (Vygotsky, 2004, p.7).

Vygotsky talks about two aspects related to the learning process and to human activity in general. These two aspects are reproduction on the one hand and creativity on the other hand. Reproduction refers to memory and tradition and it means that we “repeat certain behavioral patterns that were created and shaped much earlier” (Lindqvist, 2003 p. 249). Creative activity, on the other hand, refers to how our brain can combine elements. The term that Vygotsky uses for this ability is *imagination* and imagination is the fundament of every creative action. Furthermore, it is important to emphasize the fact that Vygotsky does not consider imagination and reality as opposites. He rather understands these two aspects as interconnected and mutually dependent on each other in many ways. What is more, Vygotsky sees this as the first and most important governing law of imagination. Reality, or experience, provides a ground for imagination: “the creative activity of the imagination depends directly on the richness and variety of a person’s previous experience because this experience provides the material from which the products of fantasy are constructed” (Vygotsky, 2004, p. 14-15). Moreover, in this way we see the interrelation that was named before where “the richer the experience, the richer the act of imagination” (Vygotsky, 2004, p.15). To sum up, following Vygotsky one may conclude that imagination is an integral part

of all aspects of our cultural life, and lies at the bottom of all creative activity alike: artistic, scientific or technical. In this way, basically everything that exists that was created by the human being — the entire world of human culture as opposed to the world of nature — is the result of human imagination and of what was created out of this imagination (Vygotsky, 2004).

## 4. Exploring six models of creativity

Kaufman and Sternberg (2010) assert that the underlying goal of scientifically oriented theories is mapping the empirical reality of creative phenomena. The aim of this section is to get closer to this territory by presenting the meaning units of the essay, that is to say, the six different models for understanding creativity and the creative process: *The Four C Model of Creativity*, *Wallas' model of the creative process*, *Csikszentmihalyi's systems model of creativity*, *The Six P's of Creativity*, *Urban's Componential Model of Creativity and Divergent thinking*.

These six recurrent and commonly used models present a way of explaining creativity through different components, stages or phases in a very concise way. Furthermore, the selection of these six models was made with the purpose of covering the widest spectrum possible to describe creativity that is relevant for the essay and stands in accordance with its theoretical standpoint.

### 4.1 The Four C Model of Creativity

According to this model creativity can be divided into different levels of creative magnitude. I will now proceed to explain “the Four C model” proposed by James C. Kaufman and Ronald A. Beghetto (2009). The authors claim that the majority of the investigations of creativity usually take one of two main directions: on the one hand the research branch that focuses on everyday creativity also known as *little-c*, this is the kind of creativity which can be found in nearly all people. On the other hand we find the studies that focus exclusively on outstanding creativity also known as *Big-C* which only concerns the great creative geniuses (Kaufman & Beghetto, 2009). Kaufman and Beghetto (2009) claim that these two categories or extremes are not sufficient to cover the wide spectrum of human creativity and fail to consider the divisions, gradations, and gaps between *Big-C* and *little-c*.

For this reason, in order to expand the *little-c/Big-C* dichotomy the authors propose “the Four C model of creativity” (Kaufman & Beghetto, 2009).

Consequently, Kaufman and Beghetto introduce two new categories, namely *mini-c* and *Pro-C*. The *mini-c* category was created in order to take into consideration the creativity that takes place during the learning process, focusing on the new and personally meaningful interpretation of experiences, actions, and events (Kaufman & Beghetto, 2009). The *mini-c* category can be thought of as the little-c of the *little-c* category. Furthermore, the inclusion of this new level is of great importance to make sure that children's creative potential is nurtured.

The *Pro-C* was created to give accomplished professional individual with a high level of expertise in any creative area a category of their own. This category is intermediate position between everyday creativity (*little-c*) and the place reserved for the eminent creative geniuses (*Big-C*) (Kaufman & Beghetto, 2009).

To sum up and illustrate the process of the different levels of creativity according to the model of the Four Cs I will use the following example:

*mini-c*: A person learning to play the guitar.

*Little-c*: A person that starts playing in bands with other people.

*Pro-C*: The well-known guitar player in a famous band.

*Big-C*: Jimi Hendrix, a guitar player who changes the whole way of playing the instrument.

## 4.2 Wallas' model of the creative process

Graham Wallas created in 1926 a model for the process of creativity, which still today is very often cited in scholarly studies on creativity (Hoff, 2014). According to Wallas' theory, the process of creative thinking, understood as a way from problem to solution, can be described in four phases of creation: *Preparation*, *Incubation*, *Illumination*, *Verification* (Hoff, 2014).

*The phase of preparation* implies gaining new knowledge, facts and impression, as well as defining the problem. *The phase of incubation* deals with the somewhat passive processing of the information or the "problem". Wallas noticed that many great ideas

came to be only after having spent a time away from the problem, normally when one is having a “pause” from the problem, rather than being actively engaged in it. This “pause” can consist of only a few minutes or of several years. *The phase of illumination* is when insights are gained, new ideas are born and strategies for further work are clarified. Consequently, Wallas suggests it is by resting the mind doing other activities (*incubation*) that creative ideas are born (*illumination*) In the phase of *verification*, efforts are made to see if the new idea or solution actually “solves the problem”. This is the final stage of the creation process and it is where the idea reaches its final shape and is actually carried through (Hoff, 2014).

There are other versions of this model widely used, which incorporate more phases to the creative process built upon the original model proposed by Wallas. I will mention one that is commonly added as the last phase of the process: the *phase of implementation*. This part of the creative process is often long and tedious and where a lot of the hard work takes place. To better describe this phase we can borrow Thomas Edison’s quote “1% inspiration 99% perspiration” (Bachrach, 2012).

It is important to understand that Wallas’s model of the creative process is not always a linear process in which all phases always take place or that all phases must be followed literally in order to be creative. It is also important to bear in mind that these are not exclusive phases and most of the times they overlap and may occur many times during the creative process until it reaches its ending.

Wallas’ model is a simplification but at the same time it provides us with a valid and simple form of organizing this complex process (Bachrach, 2012).

### 4.3 Csikszentmihalyi’s systems model of creativity

I will now describe the basic notions of the Hungarian psychologist Mihaly Csikszentmihalyi’s systems model of creativity.

Csikszentmihalyi is one of many researchers who emphasizes the cooperation between the individual and the environment in order for creativity to occur (Csikszentmihalyi,

1996). In this point of view, it is not sufficient with only a creative person for creativity to be brought about, but also the context in which creativity occurs is of fundamental importance:

“[...] Creativity does not happen inside people’s heads, but in the interaction between a person’s thoughts and a sociocultural thoughts and a sociocultural context. It is systemic rather than an individual phenomenon.” (Csikszentmihalyi, 1996, p. 23).

According to Csikszentmihalyi’s systems model, there are three necessary parts for creativity to arise. The first component of the model is the *domain*, which means an art form or a particular area of science. One example of a domain can be mathematics, which consists of a set of rules and procedures (Csikszentmihalyi, 1996). The second component of creativity is the *field*, which is conformed by the experts, who act as gatekeepers to a particular domain, who are competent enough to evaluate what is considered new and appropriate. For example, in the field of visual arts the gatekeepers are art teachers, gallery owners, art collectors, critics or foundations and institutions that work with culture (Csikszentmihalyi, 1996).

The last component of the creative system is the individual *person* who contributes with something new and appropriate to the domain. The creative person must have genuine knowledge within the domain as well as good contact with the field (Hoff, 2014). Thus, creativity takes place when a person, using his or her genuine knowledge in a given domain such as music, visual arts, mathematics or economics, comes up with a new idea, which is accepted and selected by the experts of the field to be included in the corresponding domain (Csikszentmihalyi, 1996).

In conclusion, according to Csikszentmihalyi’s systems model, the definition of creativity is: “[...] any idea or product that changes an existing domain, or that transforms an existing domain”. The definition of a creative person is “someone whose thoughts or actions change a domain or establish a new domain”. Furthermore, according to the author, it is fundamental to remember that “a domain cannot be changed without the explicit or implicit consent of a field responsible for it.” (Csikszentmihalyi, 1996, p. 28).

## 4.4 The Six P's of Creativity

Csikszentmihalyi's systems model does not cover all aspects of creativity (Hoff, 2014). The model of the Six P's may serve as a complement to the above mentioned model but it may also work as a tool itself when understanding and investigating creativity. This model is widely used in creativity research and provides a framework to identify and organize the different aspects, categories or areas of study of creativity in a comprehensive way (Kaufman & Sternberg, 2010).

Traditionally the model proposed by James M. Rhodes known as "the four P's of creativity" consisted of four aspects: *process*, *product*, *person* (or personality) and *place* (or press) (Kaufman & Sternberg, 2010). An updated version of this framework added two more components enlarging the model to what is known as "the six P's of creativity". The newly added aspects are *persuasion* introduced by Dean K. Simonton, and *potential* introduced by Marc A. Runco (Kaufman & Sternberg, 2010).

The Six P's: *process*, *product*, *person*, *place*, *persuasion* and *potential* will now be further explained:

***Process:*** refers to *how* the path from problem to an idea takes place, that is to say, *how* the creative process occurs at a cognitive level. The objective is to understand the type of mental mechanisms that take place during creative thought or creative activity (Kaufman & Sternberg, 2010).

***Product:*** refers to the end product, such as a product for sale, different types of services, solutions to problems, publications, ideas for change or artistic expressions (Hoff, 2014).

***Person (or personality):*** refers to the individual that creates, namely the creative person (or personality). The tendency in early research of creativity was focused essentially on personality traits and compared mathematicians, architects, writers and other groups of creative people in order to identify distinctive personality attributes that imply creative potential. Several attributes appear to be more prevalent and common among creative persons including: intrinsic motivation, wide interests, openness to experience and

autonomy. Nowadays most theories consider personality as only one aspect or influence of creative behavior (Kaufman & Sternberg, 2010).

**Place:** refers to the place where creativity arises. This is often connected with the phase of *illumination* (see chapter 5.1.2) and refers to when/where insights are gained. The creative place can, apart from being a physical place, also be a mixture of good conditions, as can be the presence of “the appropriate” people, the presence of an infrastructure, access to material and know-how, a financier who can offer economic solutions and offer advantageous working conditions. *Place* can also refer to the psychosocial environment and the presence of a “creative climate” characterized by freedom and the possibility to independent work as the most important aspect, but also of other aspects such as time and support for ideas, risk-taking, challenge, playfulness and humor, trust, confidence, debates and conflicts (Hoff, 2014).

**Persuasion:** refers to the creative person’s ability to convince others that his product is creative. Highly creative persons change the way other people think so it is of great importance that these creative persons with their creative ideas have the ability to persuade others in the area of expertise in order to be considered creative (Kaufman & Sternberg, 2010).

**Potential:** refers to the conditions and potential that a person has to be creative and to develop their creativity. Many research in this category focuses on children’s potential and everyday creativity (Kaufman & Sternberg, 2010).

## 4.5 Urban’s Componential Model of Creativity

In his componential model of creativity Klaus K. Urban (2007) presents six aspects or components of individual activity that are necessary for creativity to occur. In regard to the variety of theoretical approaches to creativity, Urban (2007) identifies two large classes that are slightly different from each other: a cognition oriented view and a personality oriented view. Accordingly, his model is built taking into consideration these two main groups and remarking the interdependency that these two groups have

when creativity takes place (Urban, 2007). Furthermore, Urban (2007) emphasizes the importance of identifying which components of personality are central and responsible for creative behaviour. As a step further in this direction the author states: “It is evident that cognition is not something outside or different from personality. Cognition is a part of personality” (Urban, 2007, p 170). As shown above Urban’s model (2007) divides the components of creativity in two main groups: on the one hand the cognitive components referring to what we need to know and on the other hand the personality components referring to the attitudes we need to have in order for creativity to occur (Urban, 2007).

I will now proceed to enumerate the six components:

Cognitive components:

***Divergent thinking and doing.***

***General knowledge and thinking base.***

***Specific knowledge base and specific skills.***

Personality components:

***Focusing and task commitment.***

***Motives and motivation.***

***Openness and tolerance of ambiguity.***

## 4.6 Divergent thinking

In this section I will proceed to describe Divergent thinking, which is a topic that differs slightly from the above mentioned models. This difference consists in the fact that Divergent thinking is a specific component of creativity in contrast to the other models presented that are more global and comprehensive.

The first creativity researchers initially studied intelligence, and one of these was called J.P Guilford (1897-1987). He coined the terms convergent thinking and divergent thinking (Tellhed, 2014).

The word convergent means "confluence" and refers to the information that we put together to culminate in *one* answer or *one* solution to a question, on the other hand the word divergent means "separation" and refers to the kind of thinking that goes in different directions to generate *many* answers or solutions to a given question (Tellhed, 2014).

Conventional intelligence tests typically measure convergent thinking, where there is only requested one solution or one right answer to a given question in contrast to divergent thinking which requests several possible solutions to a given problem. Divergent thinking is a fundamental component of creativity. Divergent thinking and creativity are closely linked because you need to think broadly and outside the box in both cases. Developing the capacity to think broadly and outside the box increases the ability to come up with something unique, new and useful (Tellhed, 2014).

There are four component skills that make up divergent thinking (Baer & Kaufman, 2012):

**Fluency** is the ability to generate a large number of ideas.

**Flexibility** is the ability to generate a wide variety of ideas.

**Originality** is the ability to generate unusual ideas.

**Elaboration** is the ability to generate many details to expand and enrich one's ideas.

## 5. Theoretical Results

To begin this section I want to recall what Kaufman and Sternberg (2010) point out in relation to scientifically oriented theories: their underlying goal is to map the empirical reality of creative phenomena. With aid of the six models selected in this essay (*The Four C Model of Creativity*, *Wallas' model of the creative process*, *Csikszentmihalyi's systems model of creativity*, *The Six P's of Creativity*, *Urban's Componential Model of Creativity and Divergent thinking*) we establish contact with ***the inherent components of creativity***. Furthermore, the models provide us with a wide array of conceptual tools that help us understand the complex and fascinating phenomenon that is creativity from *different* perspectives. The combination of these perspectives, as I am to demonstrate below, will allow us to move freely between them without the risk of losing ourselves. I think of the different models as maps that from now will become part of a bigger and more comprehensive map designed to help us orientate ourselves in the complex territory of creativity. It will help us know exactly where we are and show us easily where we can go.

As stated in chapter 1, the final purpose of this essay is to synthesize the coordinates that these models have mapped in order for us to ***create*** a new framework as for how to understand creativity. This new enhanced and more comprehensive framework will give us a better understanding of the building blocks of creativity. As a result, we will have a much more specific and comprehensive, but at the same time flexible framework that will allow us to use these coordinates ***creatively*** in different teaching situations.

As I mentioned above, all models presented in this essay offer different components of creativity with a significant level of specificity. However, as is mentioned in section 2.3.3, repeated *close readings* of the six models selected were performed, with the clear intention of finding common themes. Applying different analytical strategies (see 2.3.3) two common themes among the models were discovered and categorized as ***flexibility*** on the one hand, and on the other hand ***bird's eye view perspective***. I will now proceed to describe what these two themes consist of, how they function in the different models, as well as providing some examples of how they can be applied in teaching situations.

At the end of the chapter there will be a last section which suggests a combination of the two common themes, as a way to achieve a more comprehensive, complete and thus enhanced model with regard to understanding creativity. Such a multidimensional model, where all the different components, levels and phases may be combined in many possible ways, can give teachers a wider range of tools to apply creatively in teaching situations.

## 5.1 Flexibility

In this section I will focus on an interesting characteristic that the models have in common, which is *flexibility*. There is a nonlinear aspect present in some way in all the models. While the components, levels or phases of each model provide a stable frame of reference or base to rely on, this nonlinear aspect simultaneously allows an encouraging degree of mobility when it comes to utilizing the different components, levels or phases within a specific model. The different components of the models can be approached with a high level of freedom since they are not organized in a fixed or rigid developmental progression. In other words, it is not compulsory to pass through each and every category of the models in order to utilize them. Moreover, the components can easily adapt to reality (not the other way around), when reality needs to be forced into rigid abstract categories. I will now proceed to connect the theme of *flexibility* to the different models.

In the Four C Model of Creativity the different levels can and should be used separately in order to take full advantage of the benefits that each of the different levels offer. It is important to point out the presence of different transitions and gradations inside of each of the different levels of creativity. To illustrate this we may think of the *Pro-C* level, where we find both highly creative musicians and somehow less creative, but still with a high professional level of creativity. This gradation appears and can be applied to all the four levels of this model. This possibility of gradation inside each individual level allows great amount of mobility and represents a good example of *flexibility*.

As mentioned in the previous paragraph it is highly beneficial to use the different levels of the Four C Model separately. So is the case of the *mini-c* level, which is of significant importance in teaching situations, since it is specially designed to take into consideration the creativity that occurs during the learning process (Kaufman & Beghetto, 2009). *Mini-c* focuses on the intrapersonal aspect of creativity, that is to say, what happens inside a person when learning something new; the unique and meaningful interpretations of experiences, actions and events (Kaufman & Beghetto, 2009). Nonetheless, focusing on one specific level does not exclude the possibility of coexistence of different levels altogether. However, in this context it is relevant to mention that the *Big-C* level may be an exception because this category is reserved for eminent creativity (Kaufman & Beghetto, 2009). Once again I will highlight the fact that the different levels can coexist, which as a matter of fact occurs in real life. For example, a *Pro-C* level musician may also have *little-c* level in poetry writing, while experiencing *mini-c* level in a new activity. Moreover, this possibility of *flexible* coexistence of the different levels can be very helpful in the classroom. To illustrate this I will provide a simple example: A student may have reached a high *little-c* level in digital Manga illustration with a very popular blog, but at the same time is at *mini-c* level in oil painting. Moreover, and following this example the student that has a high *little-c* level in a given area may experience frustration when dealing with her or his *mini-c* level in some other area. Here the different levels of the Four C Model could be of great help to address these differences.

The theme of *flexibility* is perhaps even more clear and more obvious in Wallas' model of the creative process where the five different phases must not be followed linearly, but may overlap and occur repeatedly during the creative process, until it reaches its ending (Bachrach, 2012).

In Csikszentmihalyi's systems model of creativity, on the other hand, the *flexibility* is of another kind. Here it refers to the way that the different components of the model interact with each other in an ongoing, fluid and reciprocal way. However, if needed, the different components could be crystallized in a certain order to describe a linear or progressive development or path. A simplified linear explanation of how creativity takes place could be as follows: First, the *person* incorporates the rules of the *domain*. Secondly, the creative *person* comes up with a new creative interpretation of the rules.

Lastly, the experts of the *field* approve of these new rules and change the *domain*. However, this linear example is an oversimplification of how this system works in real life. In reality, Csikszentmihalyi's systems model of creativity maps a system in which the components are never static but rather in a constant, fluid and reciprocal relation with each other. It is in the intersection of the interaction of the components where creativity occurs.

In the case of The Six P's of Creativity, the model is from the beginning a framework designed to organize and identify different areas of research of creativity (Kaufman & Sternberg, 2010). Anyhow, it is important to point out that the structure that the model proposes (*process, product, person, place, persuasion and potential*) is by no means rigid or linear. In other words, the model can be regarded as a list in which the order of the components has no relevance. Furthermore, the order of the components does not alter the intrinsic value that the components have. It is in this very aspect that the *flexibility* of this model resides. Any of the categories can be approached individually and separately when needed but any sort of combination of any of the components could be equally possible if necessary.

Klaus K. Urban in his Componential Model of Creativity takes into consideration two main groups in relation to creativity to build his model, namely the cognitive group and the personality group (Urban, 2007). Following The six P's terminology Urban practically uses a combination of the *process* and *person* categories at the base of his model. A manifestation of *flexibility* is found in the way in which Urban selects and then combines the components to *create* a new constellation to interpret creativity. Furthermore, the *flexibility* derived from nonlinearity is also present in in this model since there is no hierarchical organizational principle regarding the components.

With regard to Divergent thinking, I will focus on the four components skills: *fluency, flexibility, originality and elaboration*. The nonlinear aspect can be found in the same way here. Furthermore, since the very nature of Divergent thinking is to come up with many ideas or solutions to a given problem (Tellhed, 2014), this can be considered the opposite of rigid, static or unilateral. Thus, this is another example of *flexibility* which moreover, is one of the four component skills of Divergent thinking.

## 5.2 Bird's eye view perspective

Another theme that the models have in common is what I call *bird's eye view* perspective, which in other words means an overview of the totality. All the models offer the possibility of conceptualizing the different stages, levels or components in higher comprehensive unities, allowing the possibility of the *bird's eye view* perspective. This aspect is of great help because from any given component, phase or level that a student might be in we have at hand the possibility of zooming out and helping the student to see the bigger picture. When applying this zoom out procedure we facilitate the possibility to contextualize the phase, level or component where a student is at, within the frame of a broader perspective. In this way it becomes easier to gain a more meaningful understanding of the bigger scheme without losing track of the specific point where the student is at. This zoom-out to *bird's eye view* procedure is of great help and very useful to find and show potential points of development and creative maturation. Moreover, if it becomes easier to identify the exact point where a particular student is, it will also be easier for the teacher to adapt to the specific needs of the different students and thus to provide them with the scaffolding needed at that particular stage. This will in turn help them develop and reach further within their proximal zone of development. I will now proceed to relate the *bird's eye view* perspective to the different models.

As mentioned earlier The Four C Model provides a wonderful set of tools when it comes to *divide* creativity into different levels. But at the same time this model can be used as a ladder or as a bridge, in other words; as a tool to *unify* creativity. The Four C model may provide a way to connect all its different levels in order to build a sort of creative continuity. This idea of creative continuity sees no rupture, gaps or fractures between the different levels of creativity. On the contrary, it sees only one continuous creative flow, which only varies in gradation, starting in *mini-c* level all the way through to *Big-c*. This thought experiment may sound rather mystical at times but it is at the same time a highly inspiring idea. That is to say, that whenever someone sets

creativity in motion, that person is being part of a much bigger creative community. Whenever someone decides to think creatively that person has all the creators and creations backing them up. I will now provide a more concrete example. It is common in teaching situations to utilize examples of *Big-c* personalities as a source of inspiration. In the best case scenario the inspiration can work in a positive way and set in motion the creative process. However, in other cases *Big-C* examples can be at least intimidating, or in the worst case scenario discouraging and paralyzing. In cases like these the possibility of zooming out to the *bird's eye view* perspective can be used to better illustrate and describe the progression of artistic development. To put it differently; from the *bird's eye view* perspective it is possible to see all the steps in the ladder instead of only seeing the chasm. In the same line of thought the model can also be useful to provide analytical categories to structure the lifeline of a given creator for a special assignment.

Csikszentmihalyi's Systems Model of Creativity offers a unique characteristic that can be very helpful in teaching situations. As I mentioned earlier, all the models offer the possibility of zooming out from any specific component in order to acquire an overview of the totality, that is to say, a *bird's eye view* perspective. Csikszentmihalyi's model is especially useful because it provides the possibility of zooming out from an individual point of view to a sociocultural point of view. The aspect that is unique of this model is that it highlights the relation between the creative individual and the social context from which creativity emerges. Creativity is thus interpreted or understood as a product emerging out of a sociocultural context. I mentioned before the reciprocal interplay between a creative *person*, the knowledge about the *domain* with its rules and practices, and the gatekeepers of the *field* (Csikszentmihalyi, 1996). The *field* and the *domain* are two components that determine and regulate creativity in a significant way. The domain determines the specific rules and practices to depart from. These rules must be learned and incorporated in order to be able to bend them or break them in a creative way. In this way, the rules delimit a specific area from which the individual will create. The field with the gatekeepers and the experts will then judge and determine in very specific ways what is creative and what is not. It is important to be able to understand and problematize these two components related to the social context in which creativity emerges, especially for students who want to continue a higher education in areas such

as art, design or architecture to better understand the field where they develop and exercise their creativity.

When it comes to Wallas's model of the creative process, and especially when a student is beginning or going through the creative process the possibility of the *bird's eye view* perspective is of great help. The creative process can take time and, as I mentioned before, is not always linear. Moreover, the level of difficulty to come up with a new and appropriate idea depends on a lot of different factors. Sometimes the production of a creative idea can come up more easily and many other times it can take much longer for the idea to appear, nevertheless it is always a complex process. The possibility of zooming out from any given phase to grasp the whole picture or being able to see the totality before they start provides a deeper understanding and makes the student conscious of the process they are in or are about to begin and thus can keep track of their own development.

As pointed out earlier The Six P's of Creativity can be considered a list for organizing and identifying the fundamental areas related to creativity and therefore a great set of tools for orientation. Having a *bird's eye view* of the different P's and being conscious of them helps the students to have a more precise way to keep track of their creative development and workflow and also makes it easier to identify and evaluate what needs to be modified or changed in order to improve their creativity.

Urban's Componential Model of Creativity offers, as I mentioned earlier, and interesting constellation of components subdivided into the cognitive area and the personality area. Klaus K. Urban puts special interest on identifying which traits of personality are responsible of creative behavior (Urban, 2007). Here is why I think Urban's model is unique and of great help for teachers, because it brings to the table the importance that personal attitudes have on creativity. To have at hand the *bird's eye view* that Urban's model provides, makes it easier to approach this attitudinal side of creativity. To address, discuss and identify the different personality traits that are essential and responsible of creative behaviour (*focusing, motivation, openness and tolerance*) helps the students to make a more precise evaluation of the role that their own attitudes have on their creative output.

Lastly, the *bird's eye view* perspective will be now be presented in relation to Divergent thinking. It is now clear that Divergent thinking is an essential component of creativity. As I mentioned earlier this model is slightly different from the others since it only focuses on one aspect of creativity, but nevertheless a fundamental one. This model, as little as it may be, is also a very powerful one since it synthesizes divergent thinking into four component skills (Baer & Kaufman, 2012): *fluency* as the ability to generate a large number of ideas, *flexibility* as the ability to generate a wide variety of ideas, *originality* as the ability to generate unusual ideas and *elaboration* which is the ability to generate many details to expand and enrich one's ideas. To have a *bird's eye view* of this little model means to have it present almost as a set of principles whenever we embark ourselves in the creative journey.

### 5.3 Summing up and expanding the framework

To sum up, I have identified and analyzed two different themes that all the six models have in common. These are, on the one hand *flexibility*, which refers to a high mobility of the components, levels or phases of the models. On the other hand, the *bird's eye view* perspective, which refers to the inherent capacity in all models of providing the big picture.

To move ahead and take things one step further; focusing on the *flexibility* approach with its combinatory possibilities and the *bird's eye view* perspective with its zoom in/zoom out procedure inherent to all models and adding them to the precise level of specificity that the categories of the different model offer, we end up with an enhanced way of using the models. In other words, this results in a broader, more comprehensive and in my opinion a more complete and multidimensional model for teachers to work with in regard to creativity. With this in mind, I think of *flexibility* as a horizontal axis where we have available all the components, levels and phases of all the models and *bird's eye view* as a vertical axis to zoom out from any given component up to the bigger picture. These two axes provide a kind of mobility that multiplies the ways in

which we can move and combine all the components in this multidimensional model for understanding creativity.

## 6. Final discussion

The purpose of this study was to explore different models for understanding creativity and the creative process, in order to achieve a better understanding of the inherent components in creativity, how they are organized and how they can be used in a meaningful and creative way in teaching situations. *Creativity* appears repeatedly in the curricula for the Swedish school and in the course syllabi for Art Education (Skolverket, 2011), and it is therefore essential for teachers to have good knowledge and a deep understanding of this topic, in order to help students develop their creativity in accordance with the policy documents.

My essay employed a sociocultural theory as for how to understand learning and creativity, according to which *creativity* is something that *all* human beings possess and the creative process something that can be developed and enhanced (Vygotsky, 2004). Moreover, according to the sociocultural theory of learning, teachers' guidance and supervision of the student is significant, in order for learning and development to occur (Rogoff, 1990, 1998, in Mars 2016). Accordingly, from a sociocultural point of view, it is of great importance that teachers understand the different components implicit in creativity, in order to know how to support and help students develop and enhance their creativity.

The aim when I chose close reading as a method and qualitative content analysis as a way of organizing and structuring the procedure was to have the opportunity to bring forward and to put in the center *subjective interpretation* (Hällgren-Graneheim & Lundman, 2012). Performing close reading has been very helpful for me when interpreting the texts and discovering connections and patterns in the models and thus arriving to deeper interpretations. The methods were consciously chosen in order for me to advance in the capacity of undertaking a small philosophical inquiry. As teachers it is of great importance to keep updated and to be able to incorporate research and what experts say. But I also believe that teachers must have the confidence to create concepts to better incorporate, organize and apply knowledge. Performing close readings of the texts in combination with aspects of qualitative content analysis was of great help in

exercising and applying my own thoughts and creating new categories, while relying on valid research methods.

When I began this essay I was aware of the fact that creativity is a complex territory. After this first incursion I ended up with a much better and deeper understanding and at the same time aware of the fact that this territory is even more complex than I thought when I began. I see this in a very positive way. I think it could be very interesting to further investigate different methods to enhance and develop creativity and how to classify them, organize them and then apply them in different teaching situations. This could be a way of expanding and improving the multidimensional model that my analysis brought about. Other ideas are to organize this knowledge about creativity to make it accessible to teachers, for example in digital format as a blog or website, or in a physical format as a handbook, or to integrate it in the Teachers Training Programs.

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