

Credne 1.2

What is creativity?

This section of the handbook considers the tricky issue of definitions, and gives an overview of some key concepts in creativity studies.

An elusive concept

There is a sense of ineffability in the concept of creativity, and perhaps this shouldn't surprise us. The scholarly literature shows us that creativity is complex and multifaceted.

Creativity has been approached from many perspectives and by different disciplines – from psychology to education, and from philosophy to history. Each discipline brings its own tools and its own distinct philosophical assumptions to the discussion of creativity. Some think about creativity as a trait; some think of it as a skill, a process, a product and more besides.

The richness of the topic and the diversity of approaches has produced a multitude of definitions, and it involves a vast array of conceptualisations stemming from diverse empirical methods, analyses and research contexts. It would be misleading to state that those who study creativity lack a definition or even a proper understanding of the notion. But what is true is that not all theories on creativity are alike, and that psychological studies have dominated the field.

This multifaceted background has made approaching creativity in the field of education a complicated business. Creativity is certainly seen as an essential aspect of education in the 21st century, but the lack of a clear definition hampers efforts to create a culture that fosters creativity: **how can teachers promote something that is not clearly defined?**

Within educational circles, two main emphases stand out when it comes to attempting a definition of creativity: **the idea that creativity is linked with producing something new, and that this product is to be useful.** This definition, however, does not

offer an adequate frame for practitioners; in fact, it raises more questions than it answers. For example, who decides what qualifies as novel and useful? For the design of educational strategies, such a definition is far too general. To promote a culture of creativity, educators need to know more about the conditions and strategies that can foster creative outcomes and shed light on the creative processes. Finally, another aspect of creativity particularly relevant for education is understanding to what extent manifestations of creativity are domain-specific.

So, a working definition of creativity for educational practitioners is essential.

Considering the focus of this handbook, and the aims of the Credne project, our working definition of creativity rests on certain key pillars:

- **Creativity can be fostered.**
- **Creativity can be enhanced in a social group.**
- **Creativity can be expressed in different degrees.**
- **Personal traits and environmental contexts play a role in creativity.**
- **Creativity can refer to both to a product and to a process.**

From this, we come to a working definition:

Creativity is the interaction among aptitude, process, and environment that produces an idea, act or artefact that is perceived as novel and valuable or meaningful within a specific sociocultural context through a particular medium.

At a semantic level, creativity can be used to refer to four things:

1. A set of characteristics of personality.
2. A process.
3. A result, often in terms of a tangible physical product.
4. Environmental factors – sometimes referred to as a “press”.

The elements above are the **Four Ps of creativity**, which we discuss in the next section. Each of these emphases carries its own implications. However, they neglect to address the practical consequences of creativity on the individual in a social context. Furthermore, it is only relatively recently that

creativity has been studied as a phenomenon located in the intersections of the four aspects listed above. That is to say: creativity is, at once, a psychological event, a social phenomenon, as well as a material one. **Creativity is not a unitary and homogeneous “thing”.**

The Four Ps of creativity

Originally conceived by the American scholar [Mel Rhodes in the early 1960s](#), the **Four Ps** provides an invaluable tool to navigate the different facets of creativity. These Ps stand for: **Process**, **Product**, **Person** (or personality), and **Press** (or place).

Those who focus on the process aim to understand **what happens in a person’s mind when a creative event occurs**. The aim is to understand the mental mechanism of creative thinking.

Those who approach creativity with attention to the product are engaging with **the actual creative artefact**. The downside of such an approach is that it tells us little about the processes leading to its creation.

Those most concerned with the person focus on understanding **what makes an individual creative**. Studies with this focus aim to map the traits that may indicate creative potentials. These traits often include intrinsic motivation, curiosity, openness to experiment, autonomy, and resilience.

Press refers to **the environment where creativity occurs**. This approach is beneficial in providing insights into the interactions between the person and the settings or climate. It has been noted that creativity flourishes when opportunities for exploration are allowed, fear of failure is minimised (*see section 2.3 of this handbook*), and where independent work and originality are supported.

The Four Cs of creativity

Developed by [Kaufman and Beghetto](#), this theory argues that creativity has different degrees and that it can evolve.

Mini-c describes the sort of insights that are personally new and meaningful. This level of creativity can turn into **Little-c**. This is when a particular result, with practice, guidance and

effort, is seen as creative by others. **Pro-c** can follow: the situation when one is recognised as a true creative professional or expert in a given field. Eventually the trajectory can culminate in the **Big-C**: creative achievements so outstanding that the individuals who have produced them are remembered even many years after their death.

The domains of creativity

Is creativity domain-specific? Or is it a set of skills, traits, aptitudes, motivations, and propensities that transcends any domain? Do the components of creativity vary from domain to domain?

Common usage seems to suggest that creativity is **domain-general**. For instance, when referring to someone as skilful, knowledgeable or learned, typically, we have in mind a precise arena where this person is particularly brilliant: a talented chef; a knowledgeable historian; a learned lawyer. We rarely expect people to be knowledgeable across the board. When referring to someone as creative, however, it sometimes seems that we’re speaking much more broadly, without restricting their creativity to a particular area of expertise. The underpinning assumptions of such an attitude are that somehow a creative person possesses some traits that make them creative in any performance, even if those traits are particularly manifest in one given specialism (a *creative chef*, for example).

Scholars have challenged this assumption; in the literature, we find **two streams**: those supporting a domain-general view of creativity and those supporting a domain-specific interpretation. Others question whether such a debate is even useful.

Arguments supporting **domain-specificity** tend to look at the creative products produced in different domains. Those emphasising **domain-generality** tend to focus on psychometric and personal data. So, how should we negotiate these seemingly opposing theories? Ultimately, everyone will need to choose a paradigm and come to their own conclusions. However, there are theories of creativity that include both domain-specific and domain-general elements, such as [Amabile’s](#) componential model:

Domain-relevant skills are the necessary skills that lead to competent performance

in a given domain, such as writing or drawing. This component includes factual knowledge, special skills, and talents. Creativity-relevant skills are those skills that contribute to creative performance across domains and include cognitive style, working style, and divergent thinking abilities (Conti et al, 1996, p. 386)

These theories aim at creating hierarchical models of creativity that include both domain-general and domain-specific elements.

Approaches to creativity

The study of creativity has a complex history, which has produced a diversity of approaches – often overlapping, but sometimes contradictory. Let's take a look at some examples of differing approaches to creativity.

Mystical approaches

The earliest accounts of creativity were based on an idea of divine intervention. The creative person was seen as an empty vessel filled with inspiration by gods or spiritual entities. This was the principal understanding of creativity in the Ancient Western world. This take on the notion left an important and enduring legacy. Those who subscribe to this paradigm believe that creativity doesn't lend itself to a scientific approach, since it is a (quasi)spiritual process, and thus ineffable. It is a quality that transcends measurable human capacities.

Pragmatic approaches

Those taking this approach have been concerned with:

1. Developing creativity;
2. Understanding it, but without testing the validity of their approach.

This approach is not focused on creating a theoretical framework for creativity (and as a consequence has sometimes been dismissed by scholars of psychology). Instead, it wants to produce practical tools to enable it.

This pragmatic approach has produced techniques that can be applied in different contexts to enhance creative performances. Among the major contributors in this area is **Edward De Bono**. His well-known "[Six Thinking Hats](#)" tool is designed to boost creative thinking in a group, based upon different thinking styles (namely **logic, emotion,**

caution, optimism, creativity, and control). By pairing each thinking style with a hat, it encourages the people within a group to cover all the different points of view associated with the six thinking styles. Another exemplar of the pragmatic approach is **Alex Osborne**, the so-called "father of brainstorming", who developed brainstorming techniques as a means of creative **problem-solving**.

Developmental Approaches

These approaches also have a very practical focus. They provide insights not only on the roots of creativity but also on how to design an environment capable of fostering creative potential. The principal standpoint here is that creativity develops over time through an interaction with the environment. As a result, the emphasis is on the person, the place and the potential aspects of creativity. Theories in this area typically result from extensive research on the lives, family and background of eminent creative people, and tend to suggest that specific developmental experiences are correlated with creativity. Developmental approaches have contributed to better understanding of the relationship between nurture and nature in supporting creativity.

Psychodynamic approaches

These approaches are based on the idea that creativity arises from the tension between conscious reality and unconscious drives. In this view, creativity represents a way to combine and sublimate the internal contrasts. There are different opinions on how creativity occurs, but the primary assertion within this school is that creativity is a by-product of primary processes.

Freud's standpoint was that artists produce creative work to express their wishes in a publicly acceptable fashion. In general, he had a pathological view of the creative process: for Freud, only unhappy people would experience daydreams and fantasies, which are an integral part of the creative process. His **psychoanalytical approach** introduced the concept of adaptive regression and elaboration (the intrusion of unmodulated thoughts in consciousness). In his view, the real root of creativity is placed in the preconscious. It follows that unmodulated thoughts are the arena in which creativity occurs. They may occur during problem solving, but often they occur during sleep or intoxication from drugs and are seen as a creative event. For Freud,

creativity was seen as the sublimation of sexual drives.

Other theorists built further on these premises, seeing creativity as part of the mental functioning operative in the id: the individual uses creativity to avoid pain and find pleasure.

Psychometric approaches

These theories are concerned with psychological measurements. The aim is not to provide descriptions of the developmental background of creative individuals, nor of the thinking patterns, personal traits or motives. They focus instead on two tasks:

1. The construction of instruments and procedures for measurement;
2. The development of theoretical approaches to measurements.

In doing so, they are independent of any given model of creativity and any particular theoretical framework (cognitive, social, clinical, etc.).

Although some critics see these psychometric approaches as inadequate for the purpose of assessing creativity, they have aided research by providing a relatively simple and objectively quantifiable assessment device. The most notable representatives of this approach – and indeed those credited with starting the formal study of creativity – are **J.P. Guilford** and **E. Paul Torrance**.

Guilford proposed that creativity can be studied in everyday subjects with a psychometric approach, using paper and pencil tasks. He was the creator of tests to measure creativity. Torrance created the famous “**Torrance Test of Creative Thinking**”, which involves divergent thinking.

Cognitive approaches

These theories seek to understand the mental representations and processes underlying creative thoughts. Their focus is primarily on the person and the process. The process emerges in that the role of cognitive mechanisms is emphasised as the foundation of creative ideas; the person because they explore the individual differences in such mechanisms. Cognitive approaches maintain that ideational thought processes are the foundation for creative persons and creative outcomes. These theories can explain what occurs *before* creative ideas are conceived. Key concepts from these theories are remote association, divergent and

convergent thinking, conceptual combination, metaphorical thinking, and imagery.

Metacognitive processes, often associated with creative thinking, have been conceptualised as a result of these studies. Such processes, entirely under conscious control, include, for instance, “thinking backwards”, “turning the situation upside-down”, “shifting your perspectives” and “putting the problem aside”.

Social-personality approaches

These approaches have focused on personality variables, motivational variables and the sociocultural environment as sources of creativity. Certain personality traits have been identified in creative people, such as independence of judgement, self-confidence, attraction to complexity, aesthetic orientation and **risk-taking**. Intrinsic motivation also plays an important role.

Further reading

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