

Many Ways of Defining Creativity...

Creativity can be expressed in a nearly infinite number of ways in human behavior and has its origins in several components of individual and social experience. It should not be very surprising to anyone, then, that it has been defined in many ways by a variety of theorists, researchers, and practitioners. This handout summarizes several recent definitions of creativity from different sources and perspectives; the key sources or sources from which the definitions were drawn are also given.

1. Teresa M. Amabile

The social psychology of creativity. New York: Springer-Verlag, 1983.

Creativity involves an interaction among three components: domain-relevant skills, creativity-relevant skills, and task motivation. Each of these is represented in the diagram below.

Amabile's Three Components of Creativity		
Domain-Relevant Skills	Creativity-Relevant Skills	Task Motivation
<i>Includes:</i> <ul style="list-style-type: none">• Knowledge about the domain;• Technical skills;• Special domain-related "talent." <i>Depends on:</i> <ul style="list-style-type: none">• Cognitive abilities;• Perceptual and motor skills;• Formal and informal education;	<i>Includes:</i> <ul style="list-style-type: none">• Appropriate cognitive style;• Knowledge of strategies for generating ideas;• Conducive work style. <i>Depends on:</i> <ul style="list-style-type: none">• Training;• Experience in idea generation;• Personality characteristics;	<i>Includes:</i> <ul style="list-style-type: none">• Attitudes toward task;• Perceptions of own motivation for undertaking the task. <i>Depends on:</i> <ul style="list-style-type: none">• Initial level of intrinsic motivation for task;• Presence/absence of salient extrinsic constraints in environment;• Individual ability to cognitively minimize extrinsic constraints.

2. Edward deBono

Lateral thinking; a textbook of creativity. New York: Penguin Books, 1970.

Edward deBono prefers to use the term "lateral thinking" instead of creativity. Lateral thinking is concerned with *restructuring mental patterns* and emphasizes using information in provocative ways and challenging accepted ideas and concepts. Edward deBono views lateral thinking as being closely related to creativity but having greater emphasis on process than on results and on practical applications rather than mystery and abstractness.

3. Howard Gardner

Frames of mind. New York: Basic Books, 1983.

Creating minds. New York: Basic Books, 1993.

Gardner views intelligence as an ability, or a set of abilities, that help people to solve problems or create products that are of consequence in a particular cultural setting. In this sense, intelligence is linked to abilities described by others as talents, creativity, or problem solving. Seven kinds of intelligences are proposed: Linguistic, Musical, Logical-mathematical, Spatial, Bodily-kinesthetic, Intrapersonal, and Interpersonal. In *Creating Minds*, Gardner defines the creative individual as “a person who regularly solves problems, fashions products, or defines new questions in a domain in a way that is initially considered novel but that ultimately becomes accepted in a particular cultural setting. (p. 35)”

4. William J.J. Gordon

Synetics. New York: Harper and Row, 1961.

Gordon’s approach to creativity emphasizes the use of metaphor and analogy for “connection-making.” To describe the essential element of his approach, Gordon chose the Greek word *synetics*, which refers to the joining of different and apparently irrelevant elements. The synetics approach holds that people can markedly increase their ability to make creative connections if they understand and use metaphoric thinking deliberately. The synetics approach involves seeking and using direct, personal, and symbolic analogies to find new solutions to problems.

5. J.P. Guilford

Way beyond the I.Q. Buffalo, NY: Bearly Limited, 1977.

Guilford emphasizes that “problem solving and creative thinking are closely related. The very definitions of these two activities show logical connections. Creative thinking produces novel outcomes, and problem solving involves producing a new response to a new situation, which is a novel outcome.” (1977, p. 161). Guilford was among the earliest to point out the importance of understanding, assessing, and nurturing creativity. In his 1950 address to the American Psychological Association, he outlined several hypotheses concerning the nature of creative abilities. He emphasized sensitivity to problems, fluency, flexibility, novelty, synthesis, reorganization or redefinition, complexity, and evaluation. In Guilford’s Structure of Intellect Model (SOI) (currently used extensively by Mary Meeker and her associates at the SOI Institute in Oregon), creativity has usually been associated with the mental operation described as divergent production. Guilford also emphasized in his research the importance of other factors in creativity, including, transformations and implications as products and the behavioral content area. The SOI model emphasizes the role of specific intellectual factors, or mental abilities, in creativity problem solving.

6. Joe Khatena

The creatively gifted child. New York: Vantage Books, 1978.

Thinking creatively with sounds and words. Bensenville, IL: Scholastic Testing, 1973.

Khatena defined creativity in terms of “originality, or the power of the imagination to break away from the perceptual set so as to restructure ideas, thoughts, and feelings into novel and associative bonds.”

7. Donald W. MacKinnon

The nature and nurture of creative talent. American Psychologist, 1962, 17, 484-495.
In search of human effectiveness. Buffalo, NY: Bearly Limited, 1978.

MacKinnon, whose classic studies of highly creative architects provided much information about personal characteristics associated with creativity, emphasized that creative responses must be both novel and adaptive to reality (i.e. useful). In his studies, MacKinnon found that creative people were frequently characterized by inventiveness, individuality, independence, enthusiasm, determination, and industry. Highly creative people were self-confident and self-accepting, and could address both their personal strengths and limitations openly and honestly. They were also able to deal with ambiguity and lack of closure.

8. Abraham H. Maslow

Creativity in self-actualizing people. In H.H. Anderson (Ed.), *Creativity and its cultivation*. New York: Harper, 1959.

Maslow approaches creativity by emphasizing the importance of self-actualization in human behavior. In general, Maslow held that many people are afraid to learn too much about themselves, and thus never become self-actualizing. Creative people are able to overcome those fears and the rigid pressures of society, and thus become able to free themselves to attain personal integration, wholeness, and creativity. Creative, self-actualizing people were described by Maslow as bold, courageous, autonomous, spontaneous, and confident. Creativity in Maslow’s view is as much concerned with people and the way they deal with their daily lives as it is with impressive products.

9. Sarnoff A. Mednick

The associative basis of the creative process. *Psychological Review*, 1962, 69, 220-232.

Mednick proposed that creativity involves the process by which ideas one already has in one’s mind are associated in unusual but original ways to form new ideas. He emphasized the need to dig deeply into one’s associative structure, probing beyond obvious connections, to find the novel or remote associative linkages among ideas out of which original solutions are formed. For Mednick, creativity involves combining mutually remote associations in an original and useful way.

10. Alex F. Osborn

Applied imagination. New York: Charles Scribner & Sons, 1953.

Osborn, the originator of the Creative Problem Solving approach and the person who coined the term, “brainstorming,” describes creativity as the mental capacity “to visualize, to foresee, and to generate ideas.”

11. Sidney J. Parnes

Visionizing. Buffalo, NY: DOK Publications, 1988.

Parnes writes that “the heart of visionizing’s creative process is the breaking of habitual mental associations and the forming of new ones – including remote associations.” (p. 5).

12. David N. Perkins

Creativity by design. *Educational Leadership*, 1984, 42, 18-24.

“Creative thinking is thinking patterned in a way that tends to lead to creative results.”

Perkins emphasizes six general principles: (a.) creative thinking involves aesthetic as much as practical standards; (b.) creative thinking depends on attention to purpose as much as results; (c.) creative thinking depends on mobility more than fluency; (d.) creative thinking depends on working at the edge more than at the centers of one’s competence; (e.) creative thinking depends as much on being objective as being subjective; and (f.) creative thinking depends on intrinsic, more than extrinsic, motivation. Perkins concludes that the “creative pattern of thinking is an interesting mix of strategies, skills, and attitudinal factors.”

13. Mel Rhodes

An analysis of creativity. *Phi Delta Kappan*, 1961, 42, 305-310.

Rhodes felt that, too often, “a word which should be reserved to name a complex, multi-faceted phenomenon is misused to name only one part of a phenomenon... Creativity cannot be explained alone in terms of the emotional component of the process or in terms of any other single component, no matter how vital that component may be.” In an effort to synthesize many definitions, Rhodes proposed that it is essential to consider four factors in a multi-faceted conception of creativity. These are: *person* (personality characteristics or traits of creative people); *process* (elements of motivation, perception, learning, thinking, and communicating); *product* (ideas translated into tangible forms); and *press* (the relationship between human beings and their environment).

14. Carl R. Rogers

Toward a theory of creativity. In H.H. Anderson (Ed.) *Creativity and its cultivation*. New York: Harper, 1959.

In his approach to personality development, Rogers emphasized three major “inner conditions” of the creative person: an openness to experience that prohibits rigidity; ability to use one’s personal standards to evaluate situations; and ability to accept the unstable and to experiment with many possibilities. He emphasized that creative people are “fully functioning” or psychologically healthy individuals.

15. Robert J. Sternberg

Beyond IQ: A triarchic theory of human intelligence. New York: Cambridge University Press, 1988.

Sternberg distinguishes among three kinds of giftedness, in analytic, synthetic, and practical abilities. Creativity is related to the synthetic area of giftedness, and emphasizes insightfulness, intuition, and facility in dealing with *relatively novel situations*. Analytic

giftedness involves the ability to dissect a problem and understand its parts. Practical giftedness involves in applying analytic or synthetic abilities in everyday situations. In his triarchic approach to intelligence, Sternberg emphasizes *metacomponents* (or how people manage and monitor their intellectual functioning), *performance components* (or processes used to solve problems), and *knowledge acquisition components* (or how people learn new information).

16. C.W. Taylor

Cultivating simultaneous student growth in both multiple creative talents and knowledge. In: Renzulli, J.S.W. (Ed.). *Systems and models for developing programs for the gifted and talented*. Mansfield Center, CT: Creative Learning Press, 1986, pp. 307-350.

Taylor has been a pioneer in arguing that our views of intelligence and learning must be expanded to take into account many kinds of talents and to focus on the use of each of those talents to produce knowledge, not just to reproduce it. Accordingly, creativity is involved in the expression and use of all talent areas: academic, productive thinking, planning, communicating, forecasting, and decision-making.

17. E. Paul Torrance

Torrance Tests of Creative Thinking. Bensenville, IL: Scholastic Testing Press (1974).

Creativity is defined as “becoming sensitive to or aware of problems, deficiencies, gaps in knowledge, missing elements, disharmonies, and so on’ bringing together available information; defining the difficulty for identifying the missing element; searching for solutions, making hypothesis, and modifying and retesting them; perfecting them; and finally, communicating the results.”

18. Donald J. Treffinger, Scott G. Isaksen, and K. Brian Dorval.

Creative problem solving: An introduction. [Revised Edition]. Sarasota: Center for Creative Learning, 1994.

Treffinger and Isakson emphasize that effective problem solving builds upon the mutual and complementary skills of creative and critical thinking. They define each of these as follows: **Creative Thinking**-making and expressing meaningful new connections; it is a process in which we perceive gaps, paradoxes, challenges, concerns, or opportunities, **and then**-thinking of many possibilities; thinking and experience in *varied* ways, with different viewpoints; thinking of *new and unusual* possibilities; and extend and *elaborate* alternatives. **Critical Thinking**-Analyzing and developing ideas; it is a process in which we screen, support, and select possibilities, **and move towards action by**-Making inferences and deductions; comparing and contrasting ideas, categorizing and sequencing options; improving and refining promising alternatives; making effective judgments and decisions.

19. Graham Wallas

The art of thought. New York: Harcourt-Brace (1926).

In this classic study, Wallas defined four major stages in the creative process: *preparation* (detecting a problem and gathering data), *incubation* (stepping away from the problem for

a period of time), *illumination* (a new idea or solution emerges, often unexpectedly), and *verification* (the new ideas or solution is examined or tests).

20. Frank E. Williams

Assessing creativity across the Williams “cube” model. *Gifted Child Quarterly*, 1979, 23, 4.
The cognitive-affective interaction model for enriching gifted programs. In: Renzulli, J.S. (Ed.). *Systems and models for developing programs for the gifted and talented*. Mansfield Center, CT: Creative Learning Press, 1986, pp. 463-484.

The Williams Cue” defines creativity in relation to four cognitive-intellective processes (Fluency, flexibility, originality, and elaboration) and four affective-temperament dimensions (risk-taking, complexity, curiosity, and imagination).