ENRICHING THE COGNITIVE PERFORMANCE OF MIND FOR CREATIVE THINKING IN CREATIVE INDUSTRIES

Ab. Aziz Shuaib¹, Olalere Folasayo Enoch²
¹ Faculty of Creative Technology and Heritage, University Malaysia Kelantan
Locked Bag 01, 16300 Bachok, Kelantan, Malaysia
¹aziz@umk.edu.my, ²folasayoidd@yahoo.com

Abstract

Highly creative thinkers have one thing in common; they tap into a force beyond the confines of their minds, and draw from it infinite amounts of wisdom, inspiration and success. Achieving this involves not just cognitive process of acquiring and utilizing knowledge, but also applying the power of imagination. Imagination helps to shatter the boundaries of the known and enters the domains of the unknown. Thus, to be a creative thinker, this brain-based skill must be fully active and utilized. Hence, this paper seeks to illuminate on how cognitive skills of the mind can be enhanced for maximum performance in creative industry. The paper also identifies the three internal components that make up a creative mind; and also analyzed human subconscious mind and the role it plays in creative thinking and problem solving.

Keywords: Cognitive skill, human mind, creative thinking, social capital

INTRODUCTION

A creative mind is wired with the ability to feel great depth and passion (Jeff & Julie, 2013). According to Tony (2011), creative mind seeks truth and express it as close as possible to perfection. It is saturated with deepest thoughts aligned to expression and understandings of humanity, behaviors and responses to life that we make. However, creativity is not just an adjunct to life; it is life (Tony, 2011). Antoinette (2012) describes it as the result of how we think. Thus, practicing the habit of creative thinking allows us to break the barrier of what’s achievable.

Creativity is generally defined as useful novelty; that is, novelty that can be applied and add value to products or services (Oldham, Gregg, & Anne Cummings, 1996). According to F. Smith (1998), it includes the generation of ideas, alternatives and possibilities. Recent theoretical and empirical work looks at creativity as something the brain does naturally. This was also supported by Judith (2002) description of creativity as an adaptive feature of normal cognitive functioning that evolved to aid problem solving under conditions of uncertainty. Novel approaches and invention created under this kind of circumstances are highly advantageous (C. Findlay & Lumsden, 1988; Simonton, 2000).
Based on Terasa Amabile definition of creativity, “it is the production of a novel and appropriate response, product or solution to an open-ended task.” That is, the response must not be just new but also appropriate to the task to be completed or problem to be solved. Also, the task must be open-ended (heuristic), rather than having a single, obvious solution (purely algorithmic) (T. Amabile, 2012).

Creativity can also be described as ability, an attitude or a process (Robert, 2012). As ability; it is an ability to imagine or invent something new. Creativity is not the ability to create out of nothing, but the ability to generate new ideas by combining, changing or reapplying existing ideas (Robert, 2012). It may be astonishing and brilliant ideas or a simple, good and practical ideas that no one seems to have thought of yet. Everybody has substantial creative ability; however, to be creative, one needs to make a commitment to creativity and take the time for it (Robert, 2012).

In terms of attitude, creativity is accepting changes and newness, a willingness to play with ideas and possibilities, a flexibility of outlook, the habit of enjoying the good while looking for ways to improve it (Robert, 2012). As a process; creative people work hard and continually to improve ideas and solutions by making gradual alterations and refinements to their works. According to Robert (2012), creative person belief there is always room for improvement. (Csikszentmihalyi, 1996) opines that creativity results from the interaction of a system consisting of three elements. These include a culture that contains symbolic rules, a person who brings novelty into the symbolic domain, and a field of experts who recognize and validate the innovation. Thus, creativity is the process by which a symbolic domain in culture is changed. Hence, this paper seeks to illuminate on how cognitive performance can be enhance for creative thinking.

THE COMPONENTS OF CREATIVITY

Componential theory of creativity articulated by Teresa Amabile in 1983 is a comprehensive model of the social and psychological components necessary for an individual to produce creative work (T. M. Amabile, 1983). The theory highlights three components that influence creativity within-individual; these include, expertise, motivation and creative-thinking skills

**Expertise:** Expertise is relevant skills which include knowledge, technical skills, intelligence and talent in a particular domain where the problem-solver is working such as product design or architecture. According to T. Amabile (2012), these skills comprise the raw materials upon which an individual can draw throughout the creative process. They are the elements that can combine to create possible response possibilities. Creativity relies heavily on a sound and broad based knowledge. As noted by Buchanan (2001), background knowledge is an essential element that distinguishes deliberate acts of creation from accidental creativity. According to Kuhn (1970), background knowledge not only aids idea generation, it also supports the valuation component of creativity: that is, it places the idea in a context and suggests why it is important.
Thus, subconscious mind plays a significant role in building expert skills, as it stores all of our previous life experiences.

**Motivation:** There are types of motivations; intrinsic and extrinsic motivation (Fischer, Scharff, & Ye, 2002). Intrinsic motivation is an inner passion to solve problems (T. Amabile, 1996), while extrinsic motivation result from pursuit of external rewards. An individual motivated intrinsically “undertakes task or solve a problem because it is interesting, involving, personally challenging or satisfying; rather than undertaking it out of the extrinsic motivation arising from rewards, surveillance, competition, evaluation or requirements to do something in a certain way (T. Amabile, 2012). Research has shown that people are most creative when they feel motivated primarily by interest, enjoyment, satisfaction and challenge of the work itself; not by extrinsic motivators (T. Amabile, 2012).

According to Buchanan (2001), the cognitive processes that generate creative outcomes do not differ from everyday thinking. What makes the difference is the context in which the creative idea arises. This context motivates and determines the values and usefulness of ideas. Judith (2002) opines that creative problem solving involves two key cognitive processes; combinatorial and transformational. Combinatorial is a process of producing novel combinations out of familiar ideas or things through generating and testing. Steve Jobs said that creativity is just connecting the dots; that is, *producing ideas by finding the relationship between facts.* Facts merely on their own are useless until one sees the connection between them (Antoinette, 2012). David Brown, the managing director of Thomson Reuter said “an idea in and of itself may be brilliant. But it is the putting of that idea into action and protecting it that can turn concepts into cash.” However, putting ideas into action requires motivation; thus, motivation triggers actions.

**Creative-Thinking Skills:** These determine how flexibly and imaginatively we approach problems (T. Amabile, 1996). It includes a cognitive style and personality characteristics that are conducive to independence, risk-taking and taking new perspectives on problems as well as disciplined work style and skills in generating ideas. Judith (2002) stated that numbers of researchers argued that creative problem solving also involves two different thinking processes. One is convergent or analytical thinking and the other is lateral or associative thinking (divergent) (Guilford, 1967). “Analytical (vertical) thinking digs the same hole deeper while lateral thinking digs the hole in a different place” (deBono, 1970). Neurological studies show that the brain functions differently under these two kinds of thinking, with a higher degree of neutral complexity. Thus, there are greater degrees of neutral connections under divergent thinking tasks than under analytical tasks (S. Dacey & Lennon, 1988). Convergent thinking is the process of critiquing and turning the ideas into useful products, while lateral thinking is the source of ideas and insights. However, both processes are essential for creative work outcomes (Judith, 2002). According to Cummings & Oldham (1997), analytic thinking is associated with an adaptive problem-solving style, while divergent thinking is associated with an innovative problem-solving style.
THE COGNITIVE PERFORMANCE FOR CREATIVITY

The creative process cannot be summoned at will; it occurs most readily when the mind is relaxed and the imagination roaming freely. However, to understand and develop inner creativity, we first need to understand the psyche. Beneath the conscious ego’s veneer is the essential self which guides and directs the body through the subconscious mind. According to (Read, 1997), this mysterious, yet ever reliable subconscious also houses the fullest potential of the psyche. Thus, when we tap this inner realm and raise the subconscious intent to conscious awareness; we get in touch with and utilize our inner creativity. Read (1997) opines that creative insight always feels like a momentary gap has been opened and a burst of light has surfaced. Hence, creative mind opens up and releases the gem of wisdom we were waiting for. This mind-full gap can be enhanced to access inner creativity by meditation, self-awareness, soft-focus and a light-hearted attitude (Read, 1997).

**Meditation:** There are many methods of meditation but all deal with focusing the mind, quieting it, and allowing you to harness it (WikiHow, 2013). The benefits of daily meditation are becoming more accepted by medical and scientific communities; it enhanced inner creativity, calms the body, reduce blood pressure and also enhance the immune system (Read, 1997). Although it is helpful if meditation is accomplished sitting alone in some quiet place, however, we can learn to meditate in the midst of a crowded environment. Fruitful meditation is closing the eyes; still the chattering mind and focus on one specific thought or enter complete stillness in the void (Read, 1997).

**Self-Awareness:** This is a non-judgmental form of watching one’s daily actions and thoughts in the present moment in a detached frame of mind. This can create the necessary gap between the ego and the self and great clarity of mind unfolds (Read, 1997).

**Soft-Focus:** When we create soft-focus by just allowing the eyes to maintain a soft focus on a neutral surface and be aware of everything around you without focusing on any one thing; the ego is temporarily set aside and the subconscious mind where inner creativity abounds can come to the surface. This increases the peripheral vision and the sensitivity to the entire environment is enhanced, while the mind is calmed (Read, 1997). This is the focus of martial artists, dancers and well-trained athletes.

**Light-Heartedness:** This keeps the personality ego from getting a rigid hold on the psyche and stifling creative thought (Read, 1997). When we see the humor in everything, we perceive the intuitive and original moments that otherwise go unnoticed when we act from habitual behavior patterns. According to Read (1997), humor embellishes the absurd and unusual, and this is where creativity springs from.

**Exercise:** Exercise isn’t just about physical health and appearance, it affects our ability to think, create, solve, ability to lean into uncertainty, risk and judgment (R. John, 2008). According to Yakel (2013), motion is essential for life if not essence of life; thus, a less motion leads to stagnation in our thought process. Increasing motion in our life through exercise will expand our
mental and emotional range, and also force us out of current pattern of thinking (Yakel, 2013). This will create space for inspiration, creativity and new ideas to begin bubbling to the surface; thus, allowing us to view things from a more holistic perspective and further deepens our creativity abilities.

According to (M. John, 2008, p14), exercise boost brain power and can improve significantly the cognitive performance; while a sedentary lifestyle hurts problem-solving skills. This means that our fancy brain developed not while we were lounging around, but while we are working out. In children, exercise gives them higher self-esteem, less depression, less anxiety and makes them allocate more cognitive resources to a task (M. John, 2008, p18).

**Enriching Cognitive Performance through Social Capital**

Social capital refers to the influence brought about by individuals’ behaviors on the relations with their social-cultural environment (Fischer et al., 2002). It characterizes the interpersonal relationships that an individual has with other members in a surrounding community. According to Fischer et al. (2002), social capital provides the basis for analyzing the sense of community and the degree to which the individual is connected with others in the community.

Social capital comprises of structural, relational and cognitive dimensions. Structural dimension is a relationship network that connects people and help individuals to find people for assistance or cooperation (Fischer et al., 2002). The relational dimension is the sense of trust that individuals have toward each other along connections, while cognitive dimension is the bonding force that holds a group of people together. This includes sharing understanding, interest, or problems.

Thus, social capital is the potential resources embedded within and derived from the network of relationships possessed by an individual or social unit (Fischer et al., 2002). It exists at both the individual and group level; the social capital of a group depends on that of individual members. According to Fischer et al. (2002), “within a social context, an individual’s social capital is the actual and potential resources that the individual could draw on for acquiring cooperation from other members.

Therefore, social capital helps to develop social creativity that causes us to move from vague mental conceptualizations of idea to a more concrete representation of it. Social creativity provides a means for others to interact with, react to and build upon an idea. It also allows opinions from others and creates a common language of understanding (Arias & Fischer, 2000).

With the nature of most environments, coupled with how we are raised today and the values of our collective culture; significant number of people do not believe they have any creative ability. The society we live highly values the qualities of the analytical, logical and the pure rational point of view. Despite the great value of analytical thinking, overemphasizing it comes at the cost of losing out on another amazing part of our being (Yakel, 2013). It is from our creative side
that we develop vision; however, if we grow up in a culture that generally does not value creativity, we tend to suppress it.

Therefore, both physical and social environment are major external components that influence human creative development process. Social environment refers to immediate social setting in which something happens or develops. It includes the culture that the individual was educated or lives in, and the people and institutions with whom they interact (Elizabeth & Michele, 2001).

Human social environment encompass the immediate physical surroundings, social relationships and cultural milieus within which defined groups of people function and interaction. These include built infrastructure, industrial and occupational structure, labor market, social and economic processes, government, race relation, social inequality, cultural practices and beliefs about place and community (Elizabeth & Michele, 2001). Thus, the presence of multi-race and multi-culture (Malays, Chinese, Indians etc) in Malaysia and the exposure to western culture makes Malaysia a potential environment for enhancing creativity.

Social environment is an external/inside component which includes the extrinsic motivators that undermine intrinsic motivation; and as well as number of factors in the environment that can serve as obstacles or as stimulants to intrinsic motivation and creativity (Judith, 2002). Some of the social environmental factors that can stimulate creativity includes; freedom to carry out work; work teams that are collaborative; diversely skilled; positive challenge in the work; mechanisms for developing new ideas, norms of actively sharing ideas across an organization.

The physical environment or setting can influence the degree to which divergent thought processes are used. According to Judith (2002), creativity thrives on the free flow of communications and interactions among diverse members of an organization. For example, Hillier & Penn (1991) opines that the overall pattern of space in building interior affects patterns of useful interaction between research groups. This is because spatial patterns affect movement patterns, and movement patterns influence how frequently people come in contact with one another. Thus, to encourage creativity in an organization (such as creative industries and Institutions); the physical environment must encourage close interaction among individuals in the organization. In institutions, the physical environment should be designed has a whole, encouraging interrelationship between students from varying department or specialization. This will give students broad based knowledge and experience, motivations, and also enhance their creative thinking skills.
REFERENCES


