

COGNITION AND CREATIVITY AT WORK

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ABSTRACT

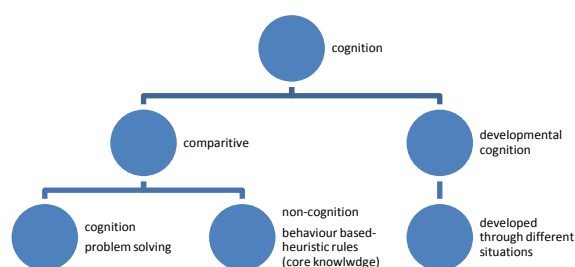
Cognition is the complex mental process that guides an individual for decision making through the development of thoughts, feelings and judgements. Creativity on the other hand is the generation of new ideas based on different situations and then transform those into reality. Both these two terms influence the organization and are dependent on each other. This research paper is a descriptive type research paper which is based on secondary data methods and elaborates the role of cognition and creativity in organizations. Organizations are familiar with these two terms and the role of both is prominent but it all depends on the practical implication of cognition and creativity in organizational settings. Various factors of cognition derive creativity at work but still need to be evaluated in detail. Further this research paper also throws light on the various parameters and factors those are important and boosts the cognition and creativity at work.

Keywords: *Cognition, Creativity, Organization.*

INTRODUCTION

As to keep the river tied the two parallel banks are required, in the similar way for an organization to run smoothly cognition and creativity are mandatory. These two terms sound easy but the practical implication of these two is not as easy as it seems. In today's era, organizations are competing for technology, resources, and product transformation and to these all organizations need a thoughtful environment for which the cognition and creativity are very much mandatory. Positive psychology is must in an organization to trace the hidden cognitive skills of its employees. Cognition is actually a complex mental process that defines a particular phenomenon through the development of thoughts, feelings and ideas related with that phenomenon. Past judgements are also a prominent feature that shapes the cognitive skills of an employee. To begin a decision-making process, an individual has to align the cognitive aspects (rational) and the affective aspects (emotional) of brain (Kyoo-Joo, Zigarmi, Nimon & Shuck, 2016).

Cognition is not just based on the consciousness of an individual but it is the alignment of the complex activities to store, retrieve and process the information (Wyrne, 2019). Generally, cognition have two aspects on which it is based



(Clayton, 2019).

With the advancement in the technology, it is seen that there is an overall decline in the cognitive process of humans- with each decade after 2 years of age is associated with an 8% reduction in memory function, 7% reduction in the frontal executive function and 8% reduction in the attentional capacity. Further it is also proved by neuroscientific studies that cognition and mental health influence the organizational behavior and human resource management (Bomers, Proudfoot, Crowford & Valenzuela, 2013). Most often the terms intelligence and cognition are used interchangeably but there is a basic difference between the two terms: the former is an

ability to obtain and use of knowledge in an adaptive situation but the latter is the awareness and a potential to learn new things.

Creativity is the term which is now becoming difficult to understand for the organizations. Creativity is one of the primary challenges in front of managers in the 21st century. Different individuals have their own creativity styles based on differences in personality, cognitive abilities, and problem -solving process (Beheshtifar & Zare, 2013). To adapt in the world of changing environment and competition organizations need to deliver quality products driven with innovation to its customers and creativity is the only hidden phenomenon behind innovation. There are two underlying concepts behind creativity- 1. Meaningful design and solution the create a new product

or service, 2. An environment that opens the door for the mental process to stimulate and to grab new ideas (Klijn & Tomic, 2000). So, creativity involves both generation of ideas and the solution to a problem. European Union announced the year 2009 as the Year of Creativity and Innovation, and enhanced the awareness level of creativity to strengthen the social and economic progress. The 5 essentials for creativity are: 1. For identification and realization of individual creativity, 2. For dealing with changing society, 3. For problem solving and creative response, 4. For positive experience, 5. For effective experience. Although majority of world organizations are using the terms creativity and innovation but very few of them are able to deliver the products and services derived by these two (Baryniene & Bauknyte, 2015).

OBJECTIVES OF THE STUDY

- To discuss about the evolution and the role of cognition and creativity at workplace.
- To throw the light on whether cognition derives creativity at work.
- To know about the measures to boost the cognition and creativity at work.

RESEARCH METHODOLOGY

The research is a descriptive type which is based on the secondary data sources. Various magazines, journals, reports, books and other printed material used to gather the information.

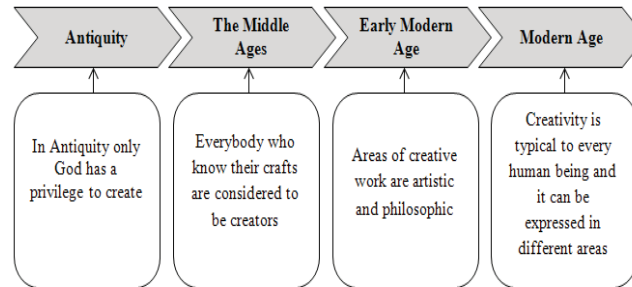
EVOLUTION AND THE ROLE OF COGINOTION AND CREATIVITY AT WORK

Cognition is a brain function that involves thinking, judging, remembering and problem-solving process and the branch which deals with this is called as cognitive psychology. The approaches were begun in 1900's when scholars like William Wundt, William James and others started the use of cognitive psychology to solve various psychological problems. The suddenly the momentum shifted to behaviorism and the attention toward cognitive psychology declined. Again in 1960's the attention shifted to cognitive psychology and the period called as the "cognitive revolution" (Cheery & Block, 2020). The first book was published in 1967 by Ulric Neisser named "cognitive psychology" and since about more than 60 universities in North America and Europe have established cognitive psychology programs (Lin-Lu, & Doshier, 2007).

Cognition in organizations have 2 aspects: 1. *Human Factor Tradition*- that involves engineering psychology and human performance as one that backed up with psychology of ergonomics. The traditional assumes that behaviorism give way to cognition and, 2. *The organizational tradition*- here the attribution theory enriched the organization tradition in various domains from employee decision making to performance. The tradition backed up with the role of attitude and beliefs in judgement and decision making of an employee (Hodgkinson & Healey, 2008). In another way, it is the affective and cognitive aspects that help employee to distinguish about his/her work at job. Affective is what we call as emotional that guides an employee what he/she feels about

his/her job and cognitive part deals with rationale that what employee thinks about his/her job (Koo-Joo, Nimon, Zigarmi & Shuck, 2016).

Creativity is actually a trait that distinguish one individual from another. It is believed that the term originates from western culture and was influences from Christianity. Ancient Greece, Indian, and Chinese cultures lacked the term creation. Thomas Hobbs defined the concept *Imagination* and the 9William Duff elaborates the concept as a quality of genius. In 20th century, Helmholtz and Henri Poincare began to discuss the process creativity (Dulgheru, 2015).

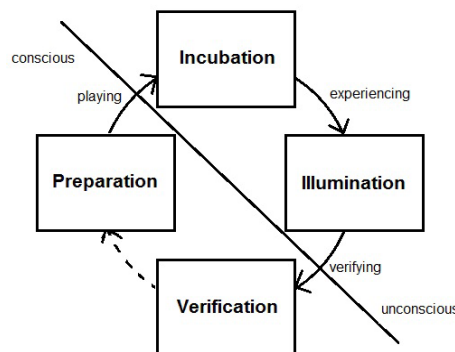


(Baryiene & Dauknyte, 2015).

Guifold in 1950 explain the two aspects of creativity:

1. *Originality (novelty)*
2. *Appropriateness (Adaptiveness)*

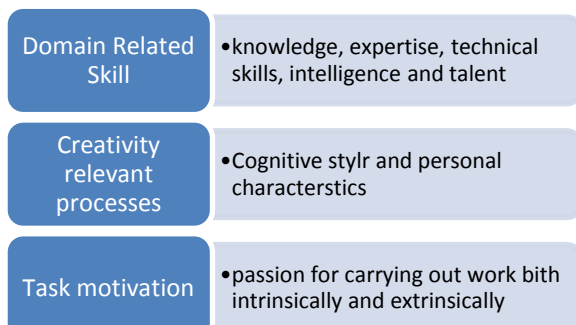
Some of the scholars add Surprise and Quality as a separate criterion. The four P's of creativity are: *Person, Process, Product and Place*. The creative process was put forwarded by Walles in 1926: (Gobara, 2013).



Source: A Cognition-Based Definition of Creativity and A Proposition for Approaching Creativity

ARTIFICIALLY

Creativity is now the base for all products and services an organization delivered to its customers. The concept is now discussing in various platforms of business such as in strategy formulation, innovation, technology and knowledge management. The three levels of creativity at work that an individual possesses are



(Gomes, Rodrigues & Veloso, 2015).

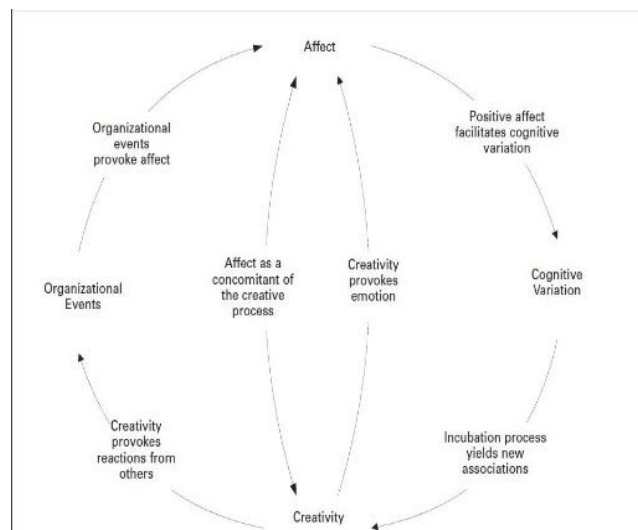
Employee creativity in organizations consist of four parameters: 1. Need for achievement, 2. Locus of control, 3. Encounter to ambiguity conditions and 4. Creativity related skills

Amabile classified individual creativity in 3 components: 1. *Expertise*, 2. *Creative Thinking skills* and 3. *Motivation* and these three can enhance creativity to the maximum level and can also contribute to the prganizational innovation, effectiveness and survival (Beheshtifar & Zare, 2013).

TO THROW THE LIGHT ON WHETHER COGNITION DERIVES CREATIVITY AT WORK

When it comes to research on creativity, only social psychologists have done the most and put forward several theories and models. It is proved by scholars that intelligence is necessary but not mandatory for creativity. Sternberg and O'Hara in 2000 concluded that higher IQ levels were not associated with the higher level of creativity. Intelligence is a part of divergent cognitive process, which involves generation of many ideas to a simple problem rather than convergent cognitive process. Fluency, originality, flexibility, imagination and field independence are other cognitive parameters that are associated with creativity (Klijn & Tomic, 2009). Another approach is there called as creative cognition approach which deeply resides in cognitive psychology principles. This approach includes the basic components that leads to divergent cognition aspect such as retrieval, combination and analogy for creativity. Although creative cognition approach backed creativity somehow, but still cognitive process needs to be evaluated in depth in future research (Ward, 2007). Positive affect leads to cognition activity which further rise to creativity. Fedrickson in a research proposed that positive emotion extends the scope of attention & cognition and lead to variation in ideas which ultimately lead to creativity. Mood-as-input a model proposed by Martin, suggested that negative affect might boost creativity in normal population.

The organizational affect-creativity cycle:



Source: *Affect and Creativity at*

Work

Creativity not just reside in cognition only but the organizational settings or the environmental settings also play an important role in formation of creative ideas. Generally, it is seen that creativity is domain specific, that is expertise in one domain is not expected to enhance creativity in another (Gabora, 2013).

The main four cognitive components of creativity are

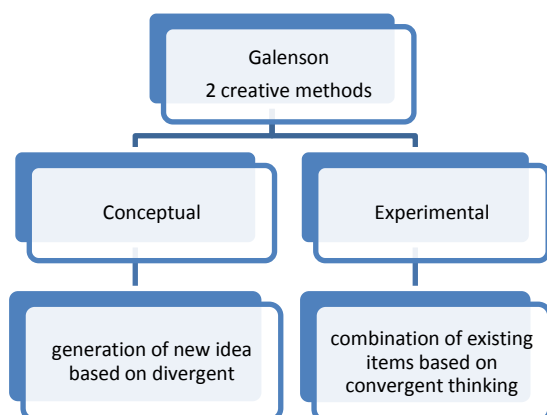
1. Memory: it is the first basic cognitive component of creativity which has further two branches; a. *declarative memory*- memory of facts and events and b. *non-declarative memory*- unconscious, procedural memory and knows how to do the things properly.
2. Divergent thinking: divergent thinking is the most important aspect of cognition that forms creativity. It deals with facts, skills, emotions and recall.
3. Convergent thinking: as we know creativity lies in the decision-making of a person and convergent thinking deals with this issue of creativity. How a person thinks strategically, apply logic and generate ideas is all depends on convergent thinking of an individual
4. Flow: when these three aspects of cognition aligns in one direction then the brain acquires balance in thoughts, stability, flexibility and generativity called as flow (How creativity works in brain, 2015).

TO KNOW ABOUT THE MEASURES TO BOOST THE COGNITION AND CREATIVITY AT WORK.

Cognitive enhancement is actually the broadening of core mental capabilities through internal or external processing systems (Farah, 2004). The role of cognitive abilities is prominent not only in work life of an individual but in daily life also. Attention, memory, judgement and other aspects of cognition have definite role in every situation faced by an individual. Out of the basic cognitive skills- sustained attention, working memory, logic and reasoning visual processing are the most dominant skills in workplace. Strengthening cognitive skills of an employee can help him/her in each and every aspect of job. The basic four ways to enhance work cognition are: 1. *Reduce stress*, 2. *Care of your body*, 3. *Practice focusing*, 4. *Exercise your brain*.

Training is the most effective way to enhance attention at work. Attention can be enhanced by exercise or meditation that changes brain state by developing attention networks. Even it is seen that music, video games, or computer exercises can improve various domains of attention (Posener, Rotbart & Tang, 2015). Another way is organizational climate enrichment that boost the brain activity by enhancing cognitive skills of an employee. Enriched environments prevent the brain to stress and neurotoxins which is one of the widely accepted method to to improve cognitive functioning. Organization can practice the learned strategies to memorize information which is a classical example of cognitive enhancement. By using the techniques such as rhyming, visualizing, and coding the brain activity get enhanced at work (Bostrom & Sandberg, 2009).

To boost creativity in organization, it is must to study the Galenson 2 creative methods:



So, management need to apply these theories practically in organizations to boost creativity. Both extrinsic and intrinsic motivation is needed to enhance creativity in workplace. Organizational encouragement: organizational culture and commitment are also some of the factors that influence the creativity at workplace. It also includes management willingness to take risk, generate ideas, and fair supportive evaluations of ideas. Lesser

organizational impediments: it includes internal politics, harsh criticism, competition, lack in risk taking and focusing on status quo. These are the major obstacles that creates a suffocating environment and closed the door for new ideas and creativity at work. Realistic workload pressure: it does not allow time for creativity. It simply engages employees in work pressures, nothing else and restrict the mind to generate new ideas. Besides these factors there are other factors that a management should incorporate in organization to enhance creativity are sufficient resources, decentralization, challenging work and work group support (Elmelegy & Mohiuddin,2016). Train your imagination- this is one of the most powerful skill that enhance creativity at workplace. Imagination is actually a practical skill which work through hard training and regular exercise.

Popcorn approach- is one in which employees/students spend 15 minutes in generating ideas and then discuss to identify the most practical ones.

Reflect on your own work- after a project is over take time to sit and identify the most useful creative skill you learned. This process will boost employee creativity for the next task.

CONCLUSION

Cognition and creativity are the two most prominent domains of organizations in this new modern world. These two are never ending domains and again organizations are trying to align these two for success and survival. In this technological world where machines dominate man and artificial intelligence is the new growth parameter for organizations, one thing is clear that without cognition and creativity nothing would work. Organizations are already started to enhance the factors that boost the cognitive skills of employees. Although more research has to be done to say confidently that cognition derives creativity at work, but one thing is sure that there are various components of cognition those affect creativity in a positive way. Cognition and creativity are the two sides of the coin and without one the other is useless. Organizations are now focusing on the factors such as motivation, encouragement, organizational climate and other to boost the creativity in the workplace. Both the terms are different but are dependent on each other. Cognition forms the base for attention, judgement and decision-making while creativity on the other hand transform the things into reality. Creativity includes all aspects of an organization- person, process, product and place. So, for the survival of an organization in this competitive world with maximum profit, management need to align cognition and creativity together.

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