

A Study of Creativity of High School Students in Relation to Information Processing Style, Conformity Behaviour and Self-Confidence



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ABSTRACT

Creativity is a mental process involving the generation of new ideas or concepts, or new associations of the creative mind between existing ideas or concepts. It is an act of making something new. Creation is an expression of the inner state of the creator and it is inner potential which influences human creativity in almost all fields of life. It is a process of bringing something new into existence. Baron (1969) described creativity as discovery of something that is novel but also useful or relevant or economical or elegant or valuable. It is considered to have both originality and appropriateness. Creativity is as varied as human aspiration and as variable as human ability. It manifests itself in every facet of human behaviour. It is an elusive nebulous phenomenon involving the fleet of imaginary of men's thought and it comes in many forms. It is man's greatest asset. It is the most highly valued qualities of human beings. According to Reddy (2003), man's creative potentialities are indeed unfathomable. The deeper people plunge into the ocean of creativity, the more they unearth and the richer they become in terms of the progress of civilisation and the comforts of life.

Keywords : Information Processing, Human Aspiration, Self Confidence

Historical perspectives of creativity

The way in which different societies have formulated the concept of creativity has changed throughout history, as has the term "creativity" itself. A fundamental change came in the Christian period: "creatio" came to designate God's act of "creation from nothing". "Creatio" thus took on a different meaning than "facere" ("tomake"), and ceased to apply to human functions. The etymological root of the word in English and most other European languages comes from the Latin *creatus*, literally "to have grown.

The formal starting point for the scientific study of creativity, from the standpoint of orthodox psychological literature, is generally considered to have been after Guilford's 1950 address to the American Psychological Association. Guilford's address is considered to be the landmark event which promoted systematic inquiry into creativity.

Although Rhodes failed to find a single definition of creativity, he has developed a system (which he calls the four P's of creativity) that enables researchers to study smaller manageable components of the larger

complex concept of creativity. In discussing the desirability of having a single unifying definition of creativity, Isaksen (1987) reports that although the concept of creativity is considered to be universally important, any single definition seems to be limited in its breadth of application. Since there appear to be many productive avenues within which to conduct productive inquiry, the creativity researcher must tolerate a certain degree of ambiguity.

Level of Creativity

Guilford (1977) identified the level of creative ability possessed by an individual. Torrance (1971), and Torrance and Presbury (1984) identified a total of 384 studies which examined the effectiveness of creativity training and have concluded that creativity can be enhanced through formal training. Perhaps one of the most extensive studies on the effects of creativity training was conducted by Parnes and Noller (1972) which demonstrated that creative ability could be identified and nurtured. It was also discovered that individuals not only differ in the amount or level of the creative ability that they possess, but they also differ in their 'style' of creativity. In other words, two individuals that possess an equal level of creativity may exhibit their creativity in two very different ways.

Styles of Creativity According to Witkin and Goodenough, (1981) style refers to the manner in which one characteristically process information. It is pervasive and concerned with form rather than content. Styles cut across diverse spheres of behavior states Messick, (1976). In other words, the style that one possess at work, will most likely possess at home or play. Guilford (1980), Kirton, (1976), Messick, (1984), Witkin and Goodenough (1981) examined the relationship between creativity.

Kirton (1976) believes these cognitive styles are found in everyone and that they play a role in creativity, problem solving, and decision making. Kirton maintains that adaptors and innovators possess equal

levels of creative potential. However, Kirton states, "Although both adaptors and innovators create in their own way, the literature on creativity has concentrated on describing the innovators" Both styles of creativity are important and necessary for the development and growth of our society.

People are creative in varying degrees and styles. This has produced a number of positive outcomes for both individuals and organizations interested in creativity. According to Grysiewicz, (1982), one of the most beneficial outcomes is the awareness that individuals will manifest their creativity in different ways, and that both styles of creativity are valuable.

Working Memory and the Cerebellum

While describing the functions of brain, relating to the frontal lobes and the cognitive functions Vandervert.et.al (2007) described how the cerebellum collaborates to produce creativity and innovation. Vandervert's explanation rests on considerable evidence that all processes of working memory, responsible for processing all thought are adaptively modeled by the cerebellum. The cerebellum consisting of 100 billion neurons, which is more than the entirety of the rest of the brain, is also widely known to adaptively model all bodily movement. The cerebellum's adaptive models of working memory processing are then fed back to especially frontal lobe working memory control processes where creative and innovative thoughts arise. According to Vandervert, the details of creative adaptation begin in "forward" cerebellar models which are anticipatory or exploratory controls for movement and thought.

Convergent and divergent thinking

The concept of divergent thinking was developed by Guilford (1950), who saw it as a major component of creativity and associated it with four main characteristics. The characteristics were fluency, the ability to rapidly produce a large number of ideas or solutions to a problem, flexibility, the capacity to consider a variety of approaches to a problem

simultaneously, originality, the tendency to produce ideas different from those of most other people and elaboration, the ability to think through the details of an idea and carry it out.

Creativity and Positive Affect Relations

In relating Creativity and Positive Affect, Isen (2002) proves that positive affect has three primary effects on cognitive activity. The positive affect makes additional cognitive material available for processing, increasing the number of cognitive elements available for association. In Broaden and Build Model, Fredrickson (2003) suggests that positive emotions such as joy and love broaden a person's available repertoire of cognitions and actions, thus enhancing creativity. Thus the positive emotions increasing the number of cognitive elements available for association (attention scope) and the number of elements those are relevant to the problem (cognitive scope).

Creativity in Adolescents

According to Eccles et al (1993) early adolescence is a period in which there is increased desire for autonomy and self-determination. Self-absorption and self-consciousness combined with identity issues and peer orientation are characteristic of this developmental stage. Arasteh and Arasteh (1976) research studies on creativity stated that the development of talent had proceeded from both childhood and adulthood with an obvious gap in the adolescent period. The recent concern with increasing scientific personnel had highlighted the need for fostering creative endeavour at the high school level. Not only was there a wastage of talent in adolescence, but not much is known of the process of creativity during these years. In the review of creativity, Torrance (1964) has commented that of the different educational levels, the high school years had been the most neglected in creativity research. Information has accumulated concerning the preschool and elementary school years because of interest in

'creative imagination'. Information had accumulated concerning creativity during the college years, because many outstanding creative students, writers and performers of many kinds began their productivity during these years and because it had deemed appropriate for colleges to produce professionally trained people who made creative contributions but no such expectations existed for high schools.

LATERALISATION OF BRAIN

The source of creativity really stems back to the brain. According to Duch (2005) the mystery of the mind and its relations to the brain is slowly being unraveled. Creativity seems to be one of the most mysterious aspects of the human mind and any attempt to elucidate brain processes behind creative thinking at present has to be speculative. Prior to the beginning of the twentieth century, little was actually known about the brain. In the late 1950's and early 1960's some significant research was conducted by Roger Sperry. Sperry's work, which earned him the Nobel Prize for Medicine, clearly showed that the brain is divided into two major parts or hemispheres the right brain and the left brain. His research also identified that each of the parts of the brain specializes in its own style of thinking and has different capabilities.

SELF-CONFIDENCE

Self-confidence is a positive attitude of oneself towards one's self concept. According to Basavanna (1975) it refers to an individual's perceived ability to act effectively in a situation to overcome obstacles and to get things go all right. It is based on both a specified level of attainment and the strength of one's belief that, that level of attainment can be achieved states Pajares (1996). It can influence people's behavior either positively or negatively, based on their perception of their abilities concerning a particular task. It influences the choices people make, the effort they put forth, and how long they persist in the face of obstacles and failure.

Steps to improve self-confidence

Often the prospect of taking on a large or complex task can shake one's self-confidence and raise doubts in one's abilities. By simply breaking down the task into smaller, manageable stages, one can increase confidence as they go through and build on the success of completing each step along the way. Mistakes are the most important element of learning and developing. If something does not give the results one expected, they should look carefully at what they did, and the things they may do better if they had to do the task again. By responding in this way one can build their confidence and ability to grow and learn.

Conclusion

Conformity is operationally defined as a process, or a type of social influence by which people change their attitude or opinion or behaviors in order to adhere or comply with the existing group or social norms which is usually viewed as acceptable or appropriate in our society or group.

Self confidence is operationally defined as a characteristic or attitude or ability which allows individuals to have positive yet realistic views of themselves and their situations, have trust in their own abilities, have a sense of control in different areas of their lives and they do not rely on others approval but take advantage of the opportunities that comes their way.

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