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Creative thinking of visually challenged adolescents: A case study

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Abstract
Creativity is different from normal activity in particular with painting, poetry, dancing, singing, playing and learning. No matter what skill one acquires, can be creative and any activity could be creative or uncreative. There is a possibility to paint in an uncreative way, likewise, one can sing in an uncreative way. In the same way one can tidy the place in a creative way, and can cook in a creative manner. Hence the objective of this paper is to bring out the observation of the investigator on creative thinking ability among the visually challenged adolescents. It focuses on the ability of children in creative learning through creative awareness, originality in products and independently exploring in tune with the habit of adjustment in a non-visual world.

Keywords: Creative Thinking, Awareness, Originality, Adjustment behaviour

Introduction

Creativity is application of a person's mental ability to discover something new, ability to relate and connect, and capacity to develop new ideas, concepts, and processes. In other words, creativity is the quality that one could bring to the activity that one is doing. It is an attitude, an inner approach, and refers to how one can look at things. Now, it is clear the first thing to be remembered is to understand that human beings are creative in one way or the other. Every activity may reflect creativity depends upon a person's attitudes. It is the ability to think and design a new way to solve problems. It is to develop an idea based on an original, novel, and unconventional approach. It is viewed as a type of cognition or mental ability of humans to look at things in different perspective and provide newer solutions to existing problems. This paper is about the impact of creative thinking of visually challenged in the learning process. Children are inimitable in terms of age, gender, origin, ability and experience. And from these differences one could form one's identity and individuality. A visually challenged adolescent is first and foremost an individual and indeed creative.

Creativity can be defined in many ways and every definition stresses the elements of novelty in the way of cognitive functioning as it is a fundamental activity of human information processing (Mathew & Raja, 2015a). It is generally agreed to include two significant qualities: The ability to create work that is novel, original and unexpected; and appropriate. It should be useful, adaptive concerning task constraints (Sternberg & Lubart, 1991) [26].

Visually challenged children are differently abled and their creative ability and learning styles depend on the environment in which they grow. A 13 years old girl attempts to uncover the rules of a game of throw-ball that her older siblings have involved her in. Children from early infancy onwards act on the world and make sense of it in the complex social environments in which they live play and learn. The fact that the children adopt to the presence of a visually challenged obviously impinge upon, but do not seize, the momentum to create meanings, to sustain social contacts, to discover rules and relationships, to make sense of the world and how it works (Webster & Roe, 2003) [30]. For these children creativity is the ability to sense something in a new way, to solve problems no one else may know, exists, and to engage in mental and physical experiences that are new, unique, or different. It is a critical aspect of a person's life, starting from inside the womb through adulthood. Researchers have found that the environment is more important than hereditary in influencing creativity, and a child's creativity can be either strongly encouraged or discouraged by early experiences at home and in school.

Revealing from Earlier Studies

Gabora (2002) [11] found that the cognitive process for generating creative ideas does not stem from the unconscious nor follows a rigid procedure, but instead it transforms and evolves a collection of old ideas into new ones. The transformation and evolution may occur through a cognitive shift (Davis and Rimm, 1989) [8] opined that the intelligence and creativity are different entities and the relation of creativity measures with psychometric measures of intelligence have generally found only a moderate to low correlation. Whereas a few studies (Guilford, 1950; Torrance, 1989; Sternberg & Lubart, 1991) [26] found that creativity is connected with giftedness of the children. It is estimated that creativity may be one domain of cognitive ability (Gagne, 1970) [12].

Wallas (1926) [28] proposed that creativity involves four consecutive stages–preparation, incubation, illumination, and verification. At the stage of preparation, a child absorbs information and during incubation, the information settles. During illumination, the solution manifests itself to the child, and during verification, the final product is created.

Gabora (2002) [11] asserted that creative process requires a thought shift from associative thinking to cause and effect thinking. Associative thinking might reveal some relationship between two things, but this relation might not provide a solution and might not be appropriate. It replaces the preparation and incubation stages of creativity. There is a shift to cause and effect thinking which are analytical and searches for a direct solution and for appropriateness. It replaces the illumination and verification stages of creativity.

Kef (2002) [16] revealed that majority of the teenagers with visual impairment had high self-esteem, were generally happy and most had accepted their impairment. Jervis (1959) concluded that there were no significant differences between the blind and the sighted with respect their psychological adjustment while Meighan (1971) found that the blind tend to view themselves very negatively, and partially sighted have greater degree of anxiety, insecurity and loneliness. Sacks (1996) opined that individual with low-vision perceive themselves more negative, expressing feelings of isolation when compared to the blind or sighted.

As seen from above studies it can be stated that a creative child has curiosity, questioning, inquisitiveness, willingness to take risk, desire to see things differently, willingness to experiment, desire to learn, positive discontent, tolerance of ambiguity, joy of discovery, wonder, and desire to interrelate. A visually challenged child may acquire one or more of these abilities, but often not taken notice of by the adults, parents and teachers.

Creative Thinking

Creativity is the ability to produce work that is relatively novel, high in quality, and appropriate to the task at hand (Sternberg and Lubart, 1995; Amabile, 1996; Zhu and Zhang, 2011). Feldhusen (2002) [10] believes that creativity has much to do with the person's existing knowledge, especially within children. In the same way, creativity is something that deviates from past experiences and procedures (Michalko, 2000 in Ramalingam, 2013). The very act of generating solutions to problems requires the creative process of going beyond previously learned concepts and rules. (Crowl *et al.*, 1997) [6].

A creative person is always alert and curious, seeks problems, enjoy challenges and complex problems, always positive and optimistic, able to suspend judgment and make wise decision, comfortable with imagination and diversity, looks problems as opportunities, looks problems as interestingly as possible, problems are emotionally acceptable, looks futuristic vision, perseverance and works hard, high achiever and always does something different. The pertinent components related to creative thinking could be:

Clarity that leads an action to solving problems very effectively; while thinking specific accuracy in the data to be included, the test equipment has to be attuned, and assumptions should be challenged; specific precision is required while thinking, which include acceptable tolerances for diverse pieces of information, and the error bars or confidence bounds on experimental or analytical data; all relevant factors have to be weighed like environmental, and redundant details that are inexplicable, and important interrelationships have to be identified; specific depth of models has adequate complexity and detail; specific breadth of full range of options have to be explored, interactions with other systems to be fully considered, and the environment is different from what one expect; the design decisions are supported by good analysis and unstated assumptions which involve logical validity should be challenged; the divergent views are given due consideration or fairness and the environmental/ safety impacts are appropriately weighed (Ramalingam, 2013). (Davis 1997) focusing initially on the positive aspects of high creativity and adverse aspects of high creativity, identified some of the specific qualities among creative children.

Children who exhibit high creativity could be identified as having the abilities of originality, independent, risk-taking, energetic, curious, sense of humour, aware of creativeness, attracted to complexity, abstract, open-minded, needs alone time and intuitive. The adverse aspects of high creativity includes: indifferent to conventions and courtesies, challenges rules and authority, rebellious, uncooperative, capricious, careless, disorderly, absentminded, forgetful, argumentative, cynical, sarcastic, egocentric, tolerant, tactless, temperamental, emotional, overactive physically and mentally (Ramalingam, 2013).

In addition to the complexity of creativity is evident in its myriad of forms and functions. Individuals can be creative in any part, or all parts, of their personal, educational, and adult professional lives. Cognitive and non-cognitive traits must combine to orient students towards creative thinking, some have small-scale creative insights, others have it in large-scale, creativity can be forced for some but it also happens suddenly and unpredictably. The creative innovation may stem from hard work and planning; it may also be from sudden inspiration and insight. Creative talent of a child will remain repressed and hidden without a psychologically safe social and cultural environment that supplies opportunities and reinforcement for creativity and problem finding is a hall mark of creative accomplishment. Creativity itself consists of four 'Ps-'components: the creative process, the creative product, the creative person, and the creative position.

Visually Challenged Adolescents

Individual with disabilities are still considered a burden to the Indian society and are neglected (Ghai, 2002 & Halder, 2008). A child who is visually challenged may be exposed to very many challenges and adjustment problems. The societal pressure on adolescents who are visually challenged is believed to contribute to loss of self-esteem and maladjustments (Kef, 2002) [16]. As a result, their creative mind undergoes stagnation in comparison to the sighted individuals. Kef (1997) found that adolescents who are blind and attended regular schools had the smallest network. Evans *et al.*, (1992) revealed that the number of social interaction between students with and without disabilities in an inclusive setting declined as the school year progressed. However, Sale & Carey, (1995) had contradictory findings

indicating that increased learning and social competence of children with disabilities occur from placement in integrated settings.

Creativity involves selecting the relevant aspects of a problem and putting pieces together into a coherent system that integrates the new information with what a child already knows (Sternberg & Davidson, 1995). Creativity entails discovering and solving problems. Innovative approaches are used to accurately evaluate shortcomings, and actions are taken to remedy those weaknesses. It overlaps with other characteristics such as intelligence, academic ability, dependability, adaptiveness, and independence and can evolve within each of the seven intelligences (Crowl *et al.*, 1997) [6]. Creativity requires many of the same conditions for learning as other higher order thinking skills. The learning processes are enhanced by supportive environments and deteriorate with fears, insecurities, and low self-esteem. Creativity deteriorates with extrinsic motivation, restraint on choice, and the pressure of external evaluation. When using the creative thinking (Webster, 1990) [31] emphasizes the shift to the process of creating, rather than on external influences, such as creative potential, of giftedness where creativity is natural outcome.

The Case: Creative mind of Athul

The investigator has done a direct observation on Athul (name changed to abide research ethics) a ninth grade boy of 16 years, from Tirunelveli district, Tamil Nadu, who is visually challenged. He spends his free time listening to music and painting. Listening to music facilitates his retaining in learning. He loves to be in a solitary place and engages himself in reflection. He is interested in painting and produces beautiful piece of work and it enhances his consentration.

The investigator carried out the study based on the creative thinking abilities given by Ramalingam (2013).

Aware of creativeness: Atul is aware of his surroundings even in the midst of games and noisy situations. He says 'I can identify every footstep of my teachers in the school campus and recognize the voice of every student and teachers in my school without the feel of touch'. It clearly states the creative awareness of Atul in the real sense.

Original: Atul is a creative artist. He distinguishes the crayon colors, by smelling. For each colour he says can feel a particular smell. He surprises everyone by this unique character. The pictures show how he makes a paper-made tea-poi and adds colour to it. Creativity comprises what one commonly means by innovation and entrepreneurship. In recent years researchers and educational writers have extended the general meaning of creativity so that it incorporates ideas about inventiveness and imagination (Chappell, 2007) [5]. Atul uses his imagination and tries to produce meaningful pieces of artistic work.

Independent: Physical independence, including mastery of daily-living skills are more important to the visually challenged individuals. One of the prime targets for teachers and parents is to move the visually challenged children from dependence to independence. Not surprisingly, one of the cornerstones of independence is freedom of physical movement from place to place. If one must depend on others for daily living activities, it is bound to foster dependence or frustration in the best adjusted person (Bukhari, 2013) [3].

He prefers to work on himself without dependence. His classmates and teachers encourage him to produce new items and he loves to work at his own pace. Being independent is the nature of a creative mind. Usually visually challenged children need continuous help and guidance from their teachers, in order to function better. But, Atul performs better being alone and independent. He enjoys the freedom of independent functioning.

Energetic, curious and sense of humour: The boy seems to be enthusiastic and exhibits eagerness in learning. His academic performance is far better compared to his peers. He enjoys humorous jokes and has a sense of humour.

Adjustment behaviour of Atul

Adjustments may be defined as the process by means of which the individual attempts to maintain a level of physiological and psychological equilibrium; or more simply, adjustment refers to behaviour directed towards tension reduction (Bukhari, 2013) [3]. Implied in this, does a state of harmonious relationship exist between the individual and the environment, so that adjustment is a matter of the interaction between the capacities of the individual and the demands of one's environment? Adjustment is specific to a given individual under specific conditions and the term adjusted is meaningful only in terms of 'adjusted to what?'

The investigator observed in Atul the following adjustment behaviour patterns: He shows signs of irritability while working, indifferent to people around him, at times uncooperative in group activities, secludes himself from his peers, and become emotional in matters that displease him; however, appears to be sensitive to people around him and is willing to listen to teachers and friends.

Adjustment for him is related to such factors as the particular culture in which he lives. He is from lower socioeconomic family, parents having chronic illness, and finds it hard to provide him with necessary support. His refusal to fight may be considered as maladjusted. Thus his adjustment depends basically on socioeconomic background, whereas the boy of a higher socioeconomic group who fights may also be considered maladjusted by the standards of his social group. Adjustment is only relative and temporary. (Kef, 2002) [16]. It is impossible for the child to become adjusted for no matter how contented he may be over the facilities provided at school, he can be out of harmony with his environment in a matter of hours, if the teachers and peers are not supportive. Furthermore, he almost invariably has problems in connection with his personal life, (being visually challenged) that disturb his adjustment. When the teacher tries to promote adjustment on the part of the child, one mean that one is trying to develop the child's capacity for adjusting on assumption that, if he can learn to face in an adequate manner the problems with which he is confronted today, may be expected to be adequate in meeting the problems of tomorrow.

Atul's adjustment implies that he must satisfy his needs within the framework of rules, regulations, and practices of the social group in which he lives. For, unless he can satisfy his needs in ways consistent with the standards of community, he is likely to find that his behaviour involves him in conflict with the social order and leads to further problems of adjustment. The adequacy of the adjustment which the child makes depends in considerable measure upon the severity of the adjustment problems with which he is faced. If the situations, to which he must adjust in relation to his creative abilities, he could satisfy his needs without undue difficulty. He is less likely to resort to asocial behaviour and more likely to be adjusted.

Educational insinuation

Celeste (2006) [4] found in a case study that the child, who is blind demonstrated limited play behaviours and compromised social interactions. The results reinforced the social competence skills in young children with visual impairments. Mishra (2004) revealed that the adolescents with visual impairment who receive parental encouragement excel in their adjustment. To understand the creative mind and adjustment behaviour of a child, one must be open to the idiosyncrasies of personality (Warren, 1984). There is much to learn by focusing on the individual and the specificities of self-adjustment (Spacial cognition 2006 conference held in Bremen, Germany in Schinazi, 2007). The visually challenged adolescents are highly intuitive and artistic. They seem to have imaginative ability which enables them to be more creative. There are several ways and means possible to encourage children in the classroom for creativity. The teachers must allow the children be spontaneous in the class. The teachers are the creative art centre of the classroom. They have to allow children to freely explore and discover on their own with easy materials available to them in the classroom. Teachers have to allow independent access based on the age of the children they teach. The materials may be kept in such a way to use different groups of children based on their ages.

Teachers have to encourage in the creative process of children so as to enjoy the stage of creative processing. Encourage children to play musical instruments while they sing. The children who are musical are able to retain attention for a longer period. Teachers are called for promoting the children to expand creativity into other areas of the curriculum. At the early stages, diversified activities such as drawing, singing, playing and other activities can be encouraged giving space for creativity. Teachers need to give due appreciation of pat and praise to children to foster their creative mind (Mathew & Raja, 2015b). The more a child receives appreciation, the better the child perform in any activity.

Creativity requires patience and a willingness to work for a creative outcome rather than simply wait for enlightenment (Bukhari, 2013) [3]. At the personal level, a programme to improve creativity may include: To generate a solutions within three months of the routine activities, to come up with an original solution for problem at hand within two to three weeks, to practice generating new ideas by daily brainstorming, to find out new ways and means to utilize effective time management. The second stage is reaching the goal. The typical criteria are- to find out that the generated ideas are novel, for the particular context, they are useful, they solve the problem or meet the challenge and it can be implemented within a particular time frame. The third stage is to read and learn about creative techniques. The information can be gathered from books, teachers, and experts. The fourth stage is sharing the ideas with friends and colleagues and lastly in celebrates the progress in reaching the goals and tries to help others.

With respect to adjustment of visually challenged adolescents, depends on the severity of the adjustment problem with which the child has to cope up. It would depend on factors as: the nature of the need being denied; the extent to which it is being denied, the extent to which their creative needs are also being denied; the possibility of substitute goals and partial satisfactions; and the child's security and the degree of one's awareness of the frustration of his needs (Bukhari, 2013) [3]. The teacher plays the pivot role in moulding children into well-adjusted individuals who are imaginative and creative. To a great extent the development of their creative ability lies in awakening their interest and motivation.

It is imperative that teachers and parents take seriously the challenge of preparing adolescents who are visually challenged to be creative thinkers. Because it will enable them to succeed in a world of igniting information, accelerate change, increasing challenge, and unprecedented new opportunity (Mathew & Raja, 2015c). Creativity among visually challenged children is increased by acknowledging that it exists and by nurturing it. For it, a sensory stimulating environment is must. Creative children can make wonders in the world and make the routine things into diversified nature of creative things. The visually challenged are differently abled and their sense of intuitiveness and imagination could fetch laurels to oneself and to society. Only in a state of equilibrium could a child think creatively and the result would be an innovation or a discovery. Perhaps, the visually challenged children will then, be able to shed their inhibition on creativity and develop into fully functioning human beings who are the guiding stars for the future generations (Beaty,1992) and the society need many more creative minds like that of like that of Helen Keller who ignites the world of darkness with the fire of perseverance.

References

1. Amabile TM. Creativity in context. New York: Westview Press, 1996.
2. Beaty LA. Psychological and social adjustment of visually impaired youth. Counselor Education Programme. Northeastern Illinois University, 1992; 22-23.
3. Bukhari R. The DBS handbook of educational psychology. New Delhi: Prentice-Hall of India, 2013.
4. Celeste M. Play behaviours and social interactions of a child who is blind: In theory and practice. Baltimore, MD: American Foundation for the Blind, 2006.

5. Chappell K. The dilemmas of teaching for creativity: Insights from expert specialist dance teachers. Thinking Skills and Creativity. 2007; 2(1):29-56.
6. Crowl TK, Kaminsky S, Podell DM. Educational psychology. New Delhi: Brown and Benchmark, 1997.
7. Davis G, Palladino JJ. Psychology (3rd edition). Upper Saddle River, NJ: Prentice Hall, 2002.
8. Davis G, Rimm S. Education of the gifted and talented. Eaglewood Cliffs, NJ Prentice Hall, 1989.
9. Davis GA. Identifying creative students and measuring creativity. In N. Colangelo, & Davis (Eds.), GA. Handbook of gifted education. Needham Heights, MA: Viacom, 269 -281.
10. Feldhusen JF. Creativity: the knowledge base and children. High Ability Studies. 2002; 13(2):179 -183.
11. Gabora L. The beer can theory of creativity. In P. Bentley & D. Corne, Morgan Kauffman (Eds.). Creative evolutionary systems. 2002, 147-161.
12. Gagne R. The conditions of learning (2nd edition). New York: Holt, Rinehart & Winston Holt, 1970.
13. Getzels JW, Jackson PW. The highly intelligent and highly creative adolescent. In Taylor CW, Barron F. (Eds.). (1963). scientific creativity: Its recognition and development. New York: John Wiley and Sons, 1963.
14. Guilford JP. Creativity. American Psychologist. 1950; 5:444-454.
15. Jervis FM. A comparison on self-concept in blind and in sighted children. Water town, MA: Perkins Press, 1959.
16. Kef S. Psychological adjustment and the meaning of social support for visually impaired adolescents. Journal of Visual impairment and blindness. 2002; 96(1):22-37.
17. Mathew B, Raja BWD. Social cognition: A higher order thinking. In G.Rexlin Jose & B. William Dharma Raja. (Eds.). (2015). Education in the Digital Era: Channels for Confrontations. Bangalore: Archers & Elevators Publishing House. 2015a, 245-257.
18. Mathew B, Raja BWD. Social cognition and understanding the social world. International Journal of Applied Research. 2015b; 1(7):256-258.
19. Mathew B, Raja BWD. Intricacy in Critical thinking: A learning enigma among visually challenged adolescents. Proceedings in enabling the learning disability. 2015c, 56-59.
20. Meighan T. An investigation of the self-concept of the blind and visually handicapped adolescents. New York, NY: American Foundation for the Blind.
21. Mishra, U. Effect of parental encouragement on self-concept of higher secondary girls. Indian Journal of Psychometry and Education. 35(1):81-83.
22. Sacks, S. Z. (1996). Psychological and social implications of low-vision. In A. L. Corn & A. J. Koenig (Eds.). Foundations of low vision: Clinical and functional perspectives. New York: AFB Press.
23. Schinazi, V. R. (2007). Psychosocial implications of blindness and low-vision. London: University College London.
24. Simonton DK. Artistic creativity and interpersonal relationships across and within generations. Journal of personality and social Psychology. 1984; 46:1273-1286.
25. Sternberg RJ, Davidson JE. The nature of insight. Cambridge, MA: The MIT Press, 1995.
26. Sternberg, RJ, Lubart TI. Defying the crowd Cultivating creativity in a culture of conformity. Cambridge Free Press, 1991.
27. Torrance EP. Torrance test of creative thinking. Princeton. NJ, USA: Personnel, 1989.
28. Wallas G. The art of thought. New York: Harcourt, Brace and Company, 1926.
29. Warren DH. Blindness and early childhood development. (2nd ed.). New York: American Foundation for the Blind.
30. Webster A, Roe J. Children with visual impairments: Social interaction, language and learning. London: Routledge publication, 2003.
31. Webster PR. Creativity as creative thinking. Music Educators Journal. 1990; 76(9):22.
32. Zhu C, Zhang LF. Thinking styles and conceptions of creativity among University students. Educational Psychology. 2011; 31(30):361-375.