WAYS OF UNLOCKING CREATIVITY IN SCHOOLS FOR SUSTAINABLE DEVELOPMENT

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ABSTRACT
Creativity has been shown to contribute to good mental health; successful living, professional performance, and the process of civilization. This paper has made an attempt to explore different methods of enhancing creativity in schools. These methods are: creative environment, development of creative personality traits, creative teaching, and teaching of creative thinking skill, creative counseling, and thinking curriculum. It concluded that fostering of creativity calls for early recognition of creative potentials and cultivation of learning habits such as spirit of discovery. It also recommended that all children should be exposed to many interesting experiences and exciting materials that will stimulate their senses inspire their growing power of expression and appreciation for sustainable development.

INTRODUCTION
Knowledge both constructive and destructive is developing rapidly, and there is a need for genuinely creative adaptation, if man is to keep abreast of the changes in the world. Thus, the ability of human beings to find creative solutions to problems is essential for the well-being of human race. On a social level, collective creativity provides the opportunity to improve quality of life. In organizations in particular, creativity is essential to ensure a firm ongoing effectiveness in a changing world. On a personal level, creativity can help an individual to break out of routines (Buolden, 2002). The creative scientist seeks the discovery of a new form or pattern in a multitude of ways. Those engaged in architecture, engineering and construction are concerned with the production in a practical way. Organizations, decision making and planning are vast fields challenging the politician, the industrial manager and the social scientist. Olton (1969) stressed that all children regardless of intelligence or initial level of creative ability demonstrate a level of creative thinking far below their potentials. The creative abilities in children are thought to increase or decrease according to how the educational environment places value on creativity. If this is true, it would appear that the creativity of some children may be so repressed by their education and experience that cannot be recognized. In a similar way, Torrance (1965) opines that failing to use mental resources is wasteful to both the individual and the society. As a whole, we may say that the society's mental health bill is made up of the difference between the potential and the operational level of every single person in the population. The person who fails to use his potential becomes psychologically unhealthy or mentally ill. As a matter of fact, numerous psychologists have been emphasizing the point that the creative person and psychologically healthy person may be one and the same thing. It is therefore vital to identify creative skills early in children and nurture it to maturity for greater social and economic development. Creativity according to Baron (1968); Csikszntmihalyi (1990); and Robinson (1990), tends to
focus on the person, the process or the product, to varying degree. Conducive context activities, characteristics and features which help to foster creativity and its output such as tolerance of divergent thinking, experimentation, risk-taking and self-motivation are relevant factors that can help students' engagement. Akinboye (2003), notes that creativity is the most viable solution to Nigerian numerous problems in education, science and technology, industrialization and governance. He further reiterates that human knowledge acquired through meaningful, constructive, functional and practicable education is the new key to, expandable source of economic prosperity. In other words, there is a need to apply creativity and innovation in areas where things are not working well. Ortese (2009) also asserts that creativity can be used effectively to bring wealth creation, self empowerment, success and prosperity. It can also prepare Nigerian students who will be of use in the labour market. Therefore, the by-products of creativity make it such an important area worth developing. Nevertheless, in education we tend to develop conformists rather than freely creative original thinkers. Despite recognition that educational environment plays an important role in developing students' creative expression, we have not yet achieved our full potential simply because every child's creativity is not properly natured. The critical role of imagination, discovery and creativity in a child's education is just beginning to come to light, and within the educational system, many still do not appreciate or notice its vital role. Creative work pulls together ideas which previously seem illusive, it involves hard work, rather than following existing norms to solve problems, it seeks new ways to arrive at final product. Yet this art of creativity is absent in our school system. This paper therefore sets out to identify different ways of unlocking creativity in schools for sustainable development.

Creative Environment Creativity is best fostered in stimulating, rewarding, resourceful, neat, and orderly and stress-free environment. The creative environment does not necessary teach a child what to think but rather assists him or her in how to think, a stimulating environment provides intrinsic motivation for a child to become a miniature researcher through the process of reading and recalling. This is echoed by Brunner (1962) who emphasize that when a child is motivated intrinsically and with the right environment, his mental functioning through the learning process is high, he develops curiosity and competency in knowledge of solving problems and creativity is enhanced. This implies that all environmental barriers are to be eliminated in learning situation. Tucker (1996) suggested that learning environment should include the following: Enough space should be provided to move self and materials freely, leave an unfinished work to continue the next day, space that has natural, harmonious colours, comfortable and child-sized areas and seats, a space to store their work. Such a space will help inspire them to do well at creating original work. The classroom should be enriched with enough resource materials for students to play, manipulate and explore in their creative work. The materials include paper, writing and drawing tools, construction materials, sculpting material and water. It should also reflect the teacher's encouragement and acceptance of mistakes, risk taking, innovation and uniqueness along with amount of noise and freedom. This does not mean acceptance of chaos in the class. The students should be given enough time to explore and do their best. By dealing with each child is an integrated way as a whole person, the school can help him express his
potentials for creativity. The most natural and flexible way to do this is by encouraging play from the very beginning in the school. Through play children explore the classroom, they begin to cope with situations and materials provided by the teachers, they master alternatives and begin to recognize their gifts and interest; through an aspect of play which might be called ‘playing out’ children can become aware of the nature of their own thoughts and feelings and begin to shape their inner energies to a constructive end. Similarly, Mead (1998) opines that it is necessary for learners to be actively involved in the process of their own learning. This presents an approach to designing the classroom as a stage so that learning experiences and situations become life related and purposeful. The idea often helps to bridge the gap between the world of adult and the child’s play through the interplay of carefully planned child-centered lessons, creative classroom environment and various levels of purely creative activity. To a certain degree, the curriculum becomes what Frazer (1976) refers to as a product of creative learning and interactive teaching rather than a curriculum of structured content, in which both learning and teaching are intended to be largely passive in character. Development of Creative Personality Traits According to Lynch (1970), enhancement of creativity involves development of creative personality traits. He stressed that the students should be helped to develop their personality characteristics in the following ways:

- Ability to produce creative ideas through divergent thinking
- Creative original stories, plays, poems, games and sketch
- Use of materials, words or ideas in new ways
- Display superior evaluative capacity
- Demonstration of precision of synthesis
- Have at least average intelligence
- Set for themselves higher standard and goals
- Have a wider vocabulary
- Be intrinsically motivated
- Ability to put two or more ideas together to get a new idea
- Ability to explore an experiment to get answers.

Creative Teaching According to Tucker (1996), creative teaching is the teacher’s ability to foster not just knowledge in learners but also attitude and cognitive skills necessary for their creative and innovative performance in real life. He insists that the teacher should not be satisfied with the students grasp of facts and their recall, but should insist on the diverse ways of arriving at facts, by deduction induction, problem solving, discussion, observation and experimentation. He should not make the students to be conformists or just imitators, but people who should think for themselves. They should be given freedom to try out things for themselves especially in drawing, painting, music, dancing, writing stories, dramatic performance. Furthermore, Wayne (2006) asserts that teaching creatively might be described as teachers using imaginative approaches to make learning more interesting, exciting and effective. On the other hand, teaching for creativity might best be described as using forms of teaching that are intended to develop students own creative thinking and behavior. It can
involve more time and planning to generate and develop ideas and to evaluate whether they have worked. It also gives confidence to improvise, and take up unexpected opportunities for learning. Teaching with creativity and for creativity include all the characteristics of good teaching including high motivation, high expectations, ability to communicate, listen, engage and inspire. So teachers need techniques that stimulate curiosity and raise self confidence and self-esteem. Carolyn gave the following suggestions on how teachers can encourage students' creativity:

- Give the students extended, unhurried time to explore and do their best, do not interfere when students are productively engaged and motivate to complete tasks in which they are fully engaged.
- Create an inviting and conducive classroom environment. Provide students with space to leave unfinished work for later completion.
- Provide interesting and useful materials and resources.

Create a classroom climate where students feel mistakes are acceptable and risk taking is encouraged. In teaching of specific subjects, Fisher (1990), Tucker (1996) maintained that in sciences, the creative teacher should use the discovery method. This method has the potential to promote a high level of motivation; it involves presenting students with problems and allowing them to work on them, reflect, ask questions and experiment on them, and also help them to draw conclusions. He should not restrict their work to classroom or laboratory, but should take them out at times. In mathematics, the teacher should not give them merely mechanical sums following a worked-out pattern in the book, but should rather give problems, especially geometry to teach not only convergent thinking, but divergent thinking. As for social sciences, the teacher can embark on field trips. Field trips allow students to discover or see things for themselves. For any field trip to be effective, Okorie (1979) notes that it must be carried out on a business-like manner and not for the sake of relaxation or entertainment. He suggests that the students can be asked to compare and contrast data, discuss certain problems and even find solutions as they may suggest. In languages, the teacher can use role playing method to enhance creativity in students. Role playing gets students to act out a problem or a structure situation for the purpose of teaching a particular skill, concept or attitude. Oyetunde (2010) recommends that it can be used in combination with discussion or questioning methods. The students could also be made to write original stories, find two or three plots for the theme of a story, and find different endings for the well-known stories to be read out to them. They could also be taught to listen creatively, read creatively and to write creatively.

In addition, Gable (2000), states that creative teaching involves teacher's ability to do the normal subjects teaching in class in order to encourage creative thinking in subjects as:

- Encourage fantasy and fun (play);
- Encourage divergent thinking;
- Recognize and value creative traits in students;
- Encourage problem-solving approach;
• Reward original work;
• Evaluate students' work constructively;
• Encourage idea generation activities;
• Encourage manipulation of ideas and objects;
• Encourage curiosity, persistence and open-mindedness;
• Encourage exploration, manipulation and experimental skills;
• Teach how to test ideas;
• Create creative classroom atmosphere;
• Entertain and respect questions, suggestions, and opposing or sound view of people;
• Provide stimulation environment that will engage learners' senses.

It is vital to consider that children have the feeling of wanting to destroy and needing to repair or restore, and if their creativity is to be fostered, they must first and foremost be allowed to explore (Winnicott, 1975). By dealing with each child in an integrated way as a whole person, Simonton (1994) stated that the school can help him express his potential for creativity. The most natural and flexible way to do this is by encouraging play from the beginning in the school. For children who had a satisfying home, life play makes a natural connection to the new kinds of experience which the school will offer; for those who have not, it provides necessary compensation, support and a chance to explore the full range of their resources, may be for the first time. Through play, children explore classroom, begin to cope with situations and materials provided by the teacher, they master alternatives and recognize their own interest and capability. By making use of play in various forms, the teacher can encourage discovery, allowing the children to reveal and master their inner forces in order to be able to approach new ways. The above ways, activities and responsibilities require training of teachers in the area of creativity as rightly observed by Tucker (1996) that if teachers are to encourage creativity in students, they themselves must be creative, and otherwise they may even suppress creativity in their students. They may consider the creative student a nuisance in class. Therefore, they should try out the exercise that can train them in divergent thinking, exercise which will train them to solve problems, practice creative listening, creative reading, creative writing and creative thinking. If only teachers and parents are themselves convinced of the importance of creativity, they will make efforts to develop it in children.

Teaching of Creative Thinking Skill Creative thinking is otherwise known as divergent thinking by Guilford (1966) and lateral thinking by De Bono (2001). To facilitate their universal usage, some are developed into steps or lessons. For instance, the Thinking Programme of De Bono known as Cognitive Research Trust (CoRT) is divided into 1-6. Each CoRT is again subdivided into ten lessons. Notable examples of such instructional programmes include Creative Problem-Solving (CPS), Brainstorming Creative Bulletin (CBB) and Internal Thinking (IT). Studies have shown that these programmes in addition to the numerous creativity techniques, over three hundred (300) in number not only contribute to creative production but also enhance creative thinking in people. Lefrancios (1991) opines that the thinking-skill
teacher does not teach thinking but facilitates it by providing the appropriate thinking tools. Creative Counselling
Creative counseling is that special intervention aimed at empowering the client or developing creative potential of the client. It helps the client develop coping skills, precognitive skills, self-concept and socially desirable values, interpersonal relationships that will help cope with the demanding situations of life. Once an individual is helped to be creative, the person develops flexibility, freedom to learn through experience, freedom to respond appropriately to conventional stimuli and ability to be more permeable, more fluent and motivated. Akinboye (2003) states that creative counseling does the following to the clients:

I. removes the barriers inhibiting human creativity to enhance creative performance;
II. increase an individual’s ability to solve life problems;
III. helps learners to be assertive so as to be creative;
IV. develops individual’s self-concept;
V. helps in preventing their health problems;
VI. helps one to develop personal identity;
VII. helps to harmoniously organize client’s personality.

Thinking Curriculum This is a curriculum which Fisher (1990) stresses that weds the process and the content, a union that typifies real-world situations, that is students are taught content through processes encountered in the real world. Students who engage in a thinking curriculum acquire content as they plan, evaluate, solve problems, make decisions, construct or critique, compose essays. At the same time the content students learned have the power to promote the higher learning process. This approach to curriculum stands in contrast to traditional curricular. In addition to this, Fennimore and Tizan (1990) suggested that a thinking curriculum be adopted for our educational system so that each subject area should review its content and process in line with the dictates of thinking curriculum. The thinking curriculum should be the one with following qualities:

- Basic qualities of knowledge, strategic learning and empathetic abilities;
- Content should include concepts, principles, generalizations, problems, fact and definitions;
- Process should include learning strategies and skills, creative and critical thinking, and thinking about social skills;
- It should treat content and process interestingly;
- Content and process should situate in real world, so that the learner will learn world thinking skills;
- Content and process should link to the learner’s background to make learning meaningful and easier for the learner’s self-development and discovery activities.

In a similar manner, Wayne (2005) had remarked that the curriculum should enable pupils to think creatively and critically, to solve problems and to make a difference for the better. It should also give them the opportunity to become creative, innovative, enterprising and
capable of leadership to equip them for their future lives as workers and citizens. It should enable students to respond positively to opportunities, challenges and responsibilities, to manage risk and cope with change and adversity.

CONCLUSION
It is worthy to note that contrary to the false belief that creativity is neither determined at birth nor the prized possession of an elite few, many people can develop it to various degrees when appropriate techniques are applied. Successful educational reform demands co-operation and commitment of educators and students. So, fostering creativity demands parental patience and determination. It also calls for early recognition of creative potential and cultivation of learning habits such as spirit of discovery, love for knowledge and persistence. Socio-cultural supports among students, between students and teachers, and among teachers are important for an open learning environment. This implies that the richer and more varied the environment is, the better the chances of assimilating experiences and knowledge that will feed the imagination, facilitate the production of new ideas, promote fresh combination of familiar ideas and an imaginative approach to problems; this preparation begins at an early age. So it follows that if creative potential is to be fully realized, the years of early and middle childhood are of great importance. Thus, the child should be exposed to many interesting experiences and exciting materials that will stimulate his senses inspire his growing power of expression and appreciation. It is only by so doing that creativity can be enhanced for sustainable development.

RECOMMENDATIONS
If creativity is to be promoted through educational system, classroom materials and procedures must be selected according to the content. The instructional materials must also be directly geared to teach process of problem-solving. For development to be sustained there is need for continuous quality improvement. That is what has been produced can be improved, not just once or twice. A product, a manufacturing, process, an interpersonal relationship, customer satisfaction, training methods, all these can be improved, regardless of how excellent they already are. Thus, creative people should search constantly for ways to improve the things around them.

REFERENCES


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Iordan, T. A. and Kohol B.


Torrance, E. P. (1965) Pre-school Creativity: Psycho educational Assessment of

