

# IMPROVING CREATIVITY AMONG JUNIOR SECONDARY SCHOOL STUDENTS THROUGH TEACHING OF BASIC SKILLS IN FUNCTIONAL EDUCATION FOR INTERNATIONAL RECOGNITION

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## **Abstract**

Though recent curriculum reform of Nigeria includes creativity as one of the major learning objective, however, creativity enhancing teaching methods is seldom adopted in real classroom practice. This paper presents a systematic method for improving creativity among junior secondary school students through teaching of basic skills for functional education. It also suggests measures to ensure that skills acquired are internationally recognised.

There is no universally accepted definition of creativity. However, Simonton (1999) defines it as production of a product that (1) must be original, and (2) must prove adaptive in some sense. This is similar to Kagan's (1978) definition where he states that a creative intellectual product must be a constructive and appropriate solution to a problem which fuses known elements into a new and coherent synthesis. In children, especially in JSS, the creative process is likely to be expressed broadly as they are likely to have a broad range of interests and have not settled in to a specific domain of interest. Creativity at JSS level can be evaluated by comparison to age peers. As pointed out by Coleman & Cross (2005), one becomes more experienced and committed to various areas of knowledge and the manifestation of creativity is likely to become more domain specific. There is an increasing recognition today that a key component of giftedness is creativity. It is not sufficient to simply know a lot of "stuff" regardless of the discipline. Rather, it is what we do with what we know that is important, particularly how we are able to come up with new solutions, products and applications. Despite an increasing awareness of the importance of creativity, a number of fallacies continue to circulate. Below are a few of the most common, followed by the corresponding fact:

1. Fallacy-- Some people are naturally creative and some are not. Fact--Although some people are naturally more creative than others, everyone has some degree of creativity. Further, creativity can be developed and even increased through a combination of effort and experience (Davis & Rimm, 2003).
2. Fallacy-- Creativity is mostly associated with the Fine Arts. Fact-- Creativity can also involve problem solving in any domain such as science, math, societal and world issues.
3. Fallacy--Creativity correlates strongly with measures of intelligence. Fact--There is some correlation between IQ and creativity up to a certain point. Beyond that, there is not. Thus, it is unlikely to find a very creative person who is not at least, of high average cognitive ability but one does find people with high IQ scores and limited creativity.
4. Fallacy-- Creativity is a free-flowing gift that manifests itself spontaneously and without great effort. Fact--Creative production requires self-discipline, practice, overcoming obstacles and planning. In the words of psychologist Jerome Kagan, "Creativity is not an

unconstrained expression of ideas that acknowledges no boundaries and addresses itself to no particular problem” (Kagan, 1978).

### **Creative Abilities**

There are a number of sub-abilities that seem to relate to creative potential. For the purpose of this paper, the four listed by Torrance (1995) and Guilford (1967) are covered which are:

**Fluency:** The ability to produce many ideas in response to a problem or question.

**Flexibility:** The ability to take different approaches to a problem, to think of ideas in different categories, or to view a situation from several perspectives.

**Originality, uniqueness & elaboration:** The ability to add details to, embellish, and implement a given idea.

**Problem finding, problem sensitivity and problem defining:** An ability to comprehend the “real” problem, see a problem more broadly, and discern missing information.

In order to improve creativity among junior secondary school children, there is need for teachers to provide activities that give room for the students to develop the above mentioned creativity potentials and abilities.

### **Characteristics Related to Creativity**

Winebrenner (2001) cautions that many creative thinkers do not do well in school. At the same time, people who have made the most significant contributions to humankind generally exhibit the characteristics of giftedness. It is often these non-conformers who have profoundly affected our lives. Winebrenner (2001) lists the following characteristics related to creativity

- Displays original ideas and products
- Is fluent in idea generation and development
- Is able to elaborate on ideas
- Demonstrates flexibility of ideas and points of view
- Experiments with ideas
- Has a good sense of humour
- Is impatient with routine and predictable tasks
- Has a tremendous capacity for making unexpected assumptions
- Challenges accepted assumptions
- Says what he thinks without regards for consequences
- Has a great imagination; daydreams often
- Dresses in non-conformist ways
- Can persist at one task to the total exclusion of others
- Is a brilliant thinker but absent-minded
- Is passionately interested in a particular topic or field of endeavour
- May be talented in the fine arts
- May do better on standardized tests than class work leads the teacher to expect

Clearly, in the classroom, the creative child can be both a joy and a challenge or some combination of the two. Not infrequently, a teacher is called upon to make wise judgments about when conformity is reasonable and necessary and when it will needlessly impede and frustrate a student. Knowledge about the nature of creativity, personal empathy and experience all help to develop this wisdom. Two

very interesting characteristics that are very solid indicators of creativity in secondary students or adults are having an imaginary playmate as a child and involvement in the theatre (Davis, 2003).

Albert (1998) listed a number of cross-cultural personality traits that are indicative of creativity. Included in these are: impulsivity, attraction to complexity and unconventional ideas, moderate rebelliousness, high ego, strength and passion.

In effective aspects, Williams(1980) taxonomy of creative thought suggested that curiosity, imagination, challenge-taking and risk –taking attitudes are conducive to creativity development and motivational factors like interest, confidence and value in creative thinking are all important determinants. Some creativity-enhancement programmes also involve the learning of specific idea-generating heuristics like brain storming, mind-mapping, forced association, check listing, creating metaphors, creative dramatics ( Starko, 2001). While the above mentioned scholars concentrated on the general aspects of creativity, some scholars believed that creativity is domain-sensitive (Baer, 1999). The former might believe that there exist a set of general creative attitudes and abilities that influence individual's creative behaviour across domain and through nurturing them, the overall creativity of a person can be enhanced. In contrast, the latter suggested that training in creativity cannot be transferred across domain.

### **Internationalization**

Internationalization means different things to different people. With the growing interest in and use of the term, the varieties of interpretations and meanings have increased. Internationalization in the context of higher education is often used interchangeably with globalization and is also used as a synonym for international, global, intercultural and multicultural education. Internationalization is an increasingly important issue in higher education around the world. Global education should no longer be narrowed to higher education, but must recognise the need to develop secondary education so as to produce graduates who can cope creatively with modern, interdependent world.

According to Francis(1993), Internationalization is a process that prepares the community for successful participation in an increasingly interdependent world. The process should infuse all facets of the post-secondary education system, fostering global understanding and developing skills for effective living and working in a diverse world.

This is one of the most comprehensive definitions proposed to date but it has been criticized by individuals involved in the study. There was a sense that the definition was too inward and campus –focused, and that an outward vision to the world was more important and relevant.

Arum and Van de Water (1992) based their search for a definition of international education on analysis of concepts and definitions used in the United States over the past 30 years. The definition they favoured was proposed by Harari in 1972. It combined three main elements 1) international content of the curriculum; 2) international movement of scholars and students concerned with training and research; and 3) international technical assistance and cooperation programmes. They have built on these perspectives and developed their own tripartite definition which refers to it as “the multiple activities, programmes and services that fall within international studies, international educational exchange and technical cooperation”.

The purpose and meaning of internationalisation varies from institution to institution, but typically involves a range of activities, policies and services that integrate international and intercultural dimension into the teaching, research and service functions of the institution (Knight, 1994). Secondary institutions have a key role in developing awareness, knowledge and skills among

Nigerians so that they are able to work and live in an environment that is both local and global in nature.

While secondary education had shown increased interest in and commitment to internationalization, the question now facing them is how to integrate creativity and internationalisation for functional education which will be globally recognised. Internationalization is an issue of critical importance. Therefore, it is important for secondary schools to integrate an international dimension into teaching, training and research activities in order to produce students who can live and compete in an increasingly interdependent world and can ensure Nigeria's economic, scientific and technological advancement.

Knight (1993) introduced an evolutionary or process-oriented view of internationalization and defined it as "the process of integrating the international dimension into the teaching, research and service function of an institution of higher education".

Harari (1989) suggested that international education must encompass not only the curriculum, international exchange of scholars/ students, cooperative programmes with the community, training and wide array of administrative services, but "distinct commitment, attitudes, global awareness, an orientation and dimension which transcends the entire institution and shapes its ethos."

The four basic approaches being used to describe internationalisation as given by knight (2004) are:

i. The process approach as a process which integrates an international dimension or perspective into the major functions of the institution. Terms such as infuse, integrate, permeate, incorporate are used to characterise the process approach. A wide range of activities, policies and procedures are part of this process.

ii. The activity approach as curriculum, scholar/student exchange and technical cooperation.

iii. The competency approach process of developing new skills, attitudes, knowledge in students, faculty and staff. The focus is clearly on human dimension not on academic activities or organisational issues.

iv. Organisational process as a process that focuses on developing an ethos or culture in the secondary or university/colleges that value and support intercultural and international perspectives and initiatives. This last approach is closely linked with the process approach.

### **Strategies to Enhance Creativity**

There are many strategies that teachers can use to promote creativity in students which also have the added benefit of increasing a teacher's personal creativity! Some are specific to school and some are more general.

#### ***School Strategies***

The following strategies are suggested by a group of teachers and quoted in Fleith (2000):

Cluster groups based on student interest, providing options, Drawing, Brainstorming, Open ended activities, Hands on activities and Creative writing.

Others include:

Mentoring with a creative person or professional, Recognizing and valuing creativity in students, Allowing "incubation time" for students to formulate answers to divergent questions, Encouraging risk-taking as well as modelling it and Being enthusiastic.

### **Developing General Creativity (Teachers)**

- A Teacher needs to Keep a creativity journal—personal, makes efforts to observe other peoples creative ideas etc.
- Teachers need to do something different everyday .Even small things like taking a different route to school or ordering something different from a menu.
- Teachers need to set goals in creative ideas, both personal and professional, or in the case of students creative talent.
- A creative teacher can Travel to different localities in other to be acquainted with raw materials to improvise the instructional materials needed for the teaching.

### **Significance of Creativity**

Creativity is very significant in JSS level of education because the world needs more and more compassionate creativity to solve difficult problems confronting us. Creative people do not have answers but think about alternatives and improvements. They discover and invent possible answers. They habitually ask better questions. They have optimism. When combined with empathy and compassion, creativity is bound to be a force for good.

Teaching creativity to everyone is vitally important if when desire a good life for all. Creativity is typically seen as an inherited disposition because many teachers and parents are not convinced that creativity can be taught. This position is unacceptable. Creativity could be seen in all kids with healthy brains. They learn what works to stimulate comfort, affection, entertainment, and so on. If we actively engage students they will be motivated to seek more engagement and enjoyment. They begin to feel more empowered and more apt to adapt to seek new experiments and learning experiences.

In many cultures, families and most schools where a lot of negative behaviour management is used, children of secondary school age grow up in a highly controlled environment with too many prohibitions and only a few of them manage to persist and retain their natural creativity.

Anything as crucial as creativity needs to be taught in every learning domain. Creative readers, whatever they teach, coach, or nurture, will recognize their own lessons and projects in what I describe. In the development of the human mind, the ability to imagine and test our scenarios is among the most advanced of all human traits. Why would any teacher want to ignore or even squelch the imagination and ways to discover truth, goodness, and beauty?

### **Some Suggested Ways of Generating Creative Ideas**

By not showing examples in advance, the teacher is forced to think and articulate ideas and assignment goals better. He or she is obligated to provide preliminary practice sessions and explain goals in terms the students can understand. There is the need to ask questions to verify that they are thinking and that they understand. The teacher can achieve this by using the grouping criteria to get as much diversity of skill, interest, and background as possible in each group. Using a group of diverse experts is known as synectics. Students may not be experts, but they are each encouraged to contribute from their unique experiences. They are expected to present their ideas to the group and ask for help adding features, new ideas, and so on. This entails taking each other's listed ideas and adding them to their own ideas to see if still more or better ideas develop. In today's world, most tasks require complex solutions that only collaborative efforts can achieve. Beginning in junior secondary students can learn to be collaboratively creative learners and teachers of each other.

After significant effort to get long lists, fine-tuned ideas, and so on, they are asked to rank all ideas according to several criteria. Criteria depend on the project, but they might sort them from innovative to common, from simple to complex, from beautiful to ugly, from useful to non-functional, from durable to temporary, from precious to cheap, and so on. This link describes a class process for getting ideas for artwork using The Conversation Game.

### **A Creative Teacher**

A teacher ought to develop a creative mind towards his or her teaching at every point of time, mostly at junior secondary school where the child still have vacuum for accommodating knowledge .As a creative teacher, it is a responsibility to review the results of a lesson or a unit. when the assesment of the result is done, the teacher has to imagine other ways the lesson could be taught. The similar unit could be be repeated in one year,then necessary correction need to be done. will you remember what needs to be changed? The teacher needs to remember to start mentioning it sooner so that the students' subconscious minds start their homework sooner? A creative teacher needs a good system to record ideas for next year? Thanks for computers that have made things easier. Even though they saw very impressive methods, it is required that their notes and ideas include alternative ways of teaching a similar lesson. Also, their journal must include some critical thinking about the pros and cons of “another way” of teaching what they observe. It is fairly easy for apprentice teachers to learn by imitating their model teachers. However, creative teachers go beyond imitating their role models. They go beyond their mentors. They do this by virtue of critical review of their own teaching – by carefully reviewing what happens and then searching for alternative things to try.

Creative teachers make mistakes, but they also search for ways to overcome mistakes. Each time they try something, they review the outcomes and try to imagine ways to make improvements. An uncreative teacher, may not feel that that there is mistakes, when teaching in the same way used at the beginning. “Nobody can teach correctly for every student in a class and certainly I should not be held responsible for an unmotivated or ‘mentally challenged’ student. Students have to do their part.” If I tend to make excuses for what should be changed in my teaching, I will not be a creative teacher. On the other hand, if teacher has a habit of looking for new alternative methods, the person is likely to be a creative teacher.

Unfortunately, studies show that many school administrators do not rate highly creative teachers as their best teachers. Along with the propensity to be creative, these teachers may be less predictable, and maybe in some cases be less amenable to school policies. Creative people are not only more fluent and flexible. They are also more sceptical and may be less respectful of authority. They may be more impulsive, more brash, more daring, and may be lacking in some social skills. From this, it is observed that not everybody will appreciate creative efforts to the extent of overlooking our personality faults. When one becomes more creative, the person becomes good communicators and graceful colleagues.

Teaching Creativity includes formative assessment and carefully constructed rubrics. The best means for increasing faculty comfort with the lack of linearity in encouraging student inventiveness is to model it first, nurture every step, require supported change, and give faculty tools for assessing. In the realm of creativity, formative assessment always trumps traditional summative assessment. Rather than a final grade, students should be getting regular feedback, constructive criticism, probing (as opposed to leading) questions from their teacher and their peers. This feedback needs to measure

specific aspects of the learning as laid out in the unit or topic goals. Rubrics geared towards creativity need to be clear and based on learning objectives.

### **Creativity as Part of our Learning Process**

According to George and Beth (1993), human beings are naturally creative and grows up to learn to be uncreative. Creativity begins with a foundation of knowledge, learning a discipline and mastering a way of thinking. You learn to be creative by experimenting, exploring, questioning assumptions, using imaginative and synthesizing information. Learning to be creative is akin to learning a sport. It requires practice to develop the right muscles and a supportive environment in which to flourish when you think of creativity, you may think of excelling in the arts. Art is certainly an aspect of creativity. Being creative is about finding innovative ways to solve problems, generating new ideas and finding ways to make things better. Research has shown that enhancing students 'creativity through arts has benefits academically, developmentally and emotionally. The traditional education model has been criticized as hampering this type of thought. There are lots of activities that can be done and strategies which can be adopted to get the creative juice flowing which include word games, visual thinking games, drawing games, etc.

### **Need for Creative Innovators**

School leaders should be considered to be system leaders working within a frame work of goals, policies, standards, curriculum and accountabilities that are intended to give coherence and consistency to their efforts. A purposeful education is the crucible in which innovations are forged. Promoting creativity and incentivizing innovations through the educational institutions is a first step towards broadening and developing the impact of innovations in the society and economy. In large scale education systems such as catering for a vast population with relatively limited resources is a major challenge. At the same time, with rapid advancement in new technologies, changing need of the economy, and the very presence of the challenges identified above the sector itself presents a fertile ground for pioneering innovations.

Today knowledge is ubiquitous, constantly changing, growing exponentially. Today knowledge is free. It's become a commodity. There is no competitive advantage today in knowing more than the person next to you. The world doesn't care what you know. What the world cares about is what you can do with what you know.

### **Challenges of Creative Education in Nigeria**

Talents recognition and identification of learners' creative areas is a prerequisite for teaching students with talents, strength and interest. Unfortunately curriculum delivery process in Nigeria education system inhibits rather than develop these talents. In most cases, there is high emphasis on paper certificates rather than knowledge acquisition and only the gifted are recognised and empowered while under achievers are neglected and their creativeness untapped. It must be known that no positive social change whatsoever will be made with a system that promotes theoretical knowledge, places emphasis on paper certification rather than stressing the development of the students' creative abilities,

The current situation, to say the least, is disheartening. A lot of computer science graduates of Nigeria's tertiary institutions, for instance, fail recruitment tests for their inability to switch on a computer. Some of them are obviously getting to touch such machines for the first time. Mass

communication graduates struggle to make simple and correct sentences. Engineering graduates, who ought to have conducted researches in the course of their studies, culminating in invention, get to touch most of the elementary engineering tools for the first time, after their graduation. This is a near hopeless situation for a country that targets to be one of the world's leading economies by 2020. The implication of the existing trend is that even though there is a high graduate unemployment rate, most of the university and polytechnics graduates in Nigeria are not employable both nationally and internationally. The loss of confidence in Nigeria's education system is evident in the amount of money that Nigerians who can afford it, spend on their education in other countries.

### **Conclusions**

Creative education is an essential tool for youth empowerment and national development. In the face of dwindling national revenue, it had become imperative that graduates of various institutions of learning must be properly equipped with creative skills so that they will be functional and be able to face the prevailing economic realities of the world staring us on the face. Hence, it is necessary that the fast changing characteristic of the new economy and business environment be accompanied by the change in the learning environment. Therefore, schools must rapidly transform from the traditional model of learning, where curriculum is text-book driven and facts are memorised to a new, transformed education strategy based on freedom of learning, functional education and international cooperation

### **Recommendations**

It had become very important for Nigeria secondary schools to integrate an international dimension into teaching, training and research activities in order to produce students who can ensure Nigeria's economic, scientific and technological competitiveness.

Internationalization of the junior secondary education should be directed at addressing the following points:

1. Establishment of a programme review process by secondary schools to ensure that programmes are internationalised.
2. Review of learning resources including library acquisition to ensure that international research is possible.
3. Establishment of process and means of more Nigerian secondary school students to have international education experiences.
4. Development of scholarship programmes for international students.
5. Adoption of internationalization as a fundamental objective of Nigeria education with the federal government taking a leadership role with the cooperation of the state government.

Likewise the internationalization of the secondary school curriculum is essential for the effective survival of Nigeria. This should be a high priority for Nigerian secondary schools and it must be a high priority for the federal government and the state government. To accomplish this goal will require institutional changes in secondary education such as the review of curriculum to ensure more courses and emphasis the international aspects

The issue of internationalisation should be taken very seriously. Secondary institutions should be encouraged to develop plans to facilitate the internationalization of the secondary schools. This is in view of the fact that there is a shift from resource- based to knowledge and information – based



economy. The accompanying imperative to prepare students for effective global citizenship has confirmed internationalization a necessary priority not a desirable option.

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