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THE ROLE OF MATHEMATICS EDUCATION IN THE ATTAINMENT OF ENTREPRENEURIAL SKILLS IN NIGERIAN YOUTHS FOR SUSTAINABLE JOB CREATION.

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ABSTRACT

Attainment of entrepreneurial skills in the youths through Mathematics Education is an essential tool for job creation. It is based on this background that this paper examines the role of mathematics education in the attainment of entrepreneurial skill in job creation. The paper discusses the concepts: entrepreneur and entrepreneurship education. It went further to examine the role of Mathematics Education in the attainment of entrepreneurial skills, the role of the Mathematics Teacher and the problems militating against the development of entrepreneurial skills through Mathematics Education. Finally, the paper made some recommendations. One of the major recommendations was that the Mathematics curriculum should be reviewed to include entrepreneurship as part of teacher education at various levels of education so that the products do not only strive for self-employment and self-reliance, but to be employers of labour.

INTRODUCTION

Most nations of the world are faced with various social, economic, political and educational problems. Adetayo (2009) stated that some of the problems are inflation, political instability, ethnic crisis, population explosion, poverty and diseases especially among students and graduate of universities, polytechnics and colleges of education. Unemployment that has become a global socio-economic problem is also common among Nigerian youths. Olatunji (2007) stressed that after graduation most youths in Nigeria depend solely on white collar jobs which has now become a mirage and most Nigerian youths are now facing problem of unemployment. Unemployment is simply a situation where skilled people who are willing and able to work cannot find any work to do (Ozuhu, 2010). Unemployment in Nigeria is a serious problem that has led to increase in different kinds of crime among youths. One major causes of unemployment is the belief arising from our present educational system where the products are 'white collar' job-seekers the type inherited from the colonial masters that do not prepare students for the acquisition of skills that could equip them from schools for self-employment (Adetayo, 2009). The increase in the number of schools established as well as the increase in students' enrolment have made unemployment inevitable since there is no corresponding increase in the number of jobs created in the country. Therefore, since there is problem of job creation, there is the need for the inculcation of self-employment or acquisition of entrepreneurial skills in our youths as an unemployment reduction measure. A re-orientation of our educational system through an entrepreneurship based curriculum could be used to achieve the goals of unemployment reduction and enhance job creation skills among the youths in Nigeria. Among the goals of education in Nigeria stated in the National Policy on Education is the acquisition of appropriate skills, the development of mental, physical and social abilities and competencies as tools for individuals to live in and contribute to the development of the society. (FRN, 2004). Therefore, the attainment of entrepreneurial skills in youths through Mathematics Education for job creation is no doubt a task worth embarking on to be self-employed, self-reliant and, to become successful entrepreneurs.

Who is an Entrepreneur?

An entrepreneur is an individual who establishes and manages a business for the principal purpose of profit and growth (Abimbola, 2008 and Ojo, 2008). Ogbo, (2002) defined an entrepreneur as an individual who creates valuable ideas, which are put into practice to support economic development and job creation. In line with this, Olutoyin (2009) viewed an entrepreneur as a person who organizes and manages a business, undertakes and assumes risk for the sake of profit. He or She intends to start ventures that basically bear on specific skills already acquired either through formal education or in a certain occupation or industry.

According to Ogbo, an efficient entrepreneur is recognized by the following qualities to transform any investment into a viable and sustainable venture:-

1. **Intelligence:** An effective entrepreneur must be intelligent, as he should be capable of identifying viable investment opportunities as well as sourcing funds to pursue such projects. He should, as well be properly equipped mentally and physically to meet the challenges.
2. **Creativity and Innovativeness:** An entrepreneur is expected to be creative by developing new ideas, programmes, new markets, identifying the latest methods of production and generating alternative packages to both customers and workers.
3. **Energy and Drive:** An entrepreneur should possess some high degree of energy and drive to be able to carry out the various functions required of venture. Since the survival of the enterprise rests upon him or her, a lot of energy is required in order to cope and sustaining the spirit of other employees during the peak period of activities.
4. **Friendly Relationship:** An individual who hopes to be a successful entrepreneur must cultivate a friendly relationship with his employees and with the people in his environment.
5. **Honesty:** An entrepreneur must exhibit a great sense of honesty as this will strengthen the faith, trust and confidence of others who have dealings with him/her, because this will carry him/her to greater heights.
6. **Discipline and Humility:** An entrepreneur must be a source of inspiration to those around him/her as he/she is expected to be humble and transparent. Discipline is also an important ingredient for the maintenance of peace and order in an organization.
7. **Pace - Setter:** An entrepreneur maintains the lead in most competitive situations and provides the necessary help to others in trouble. He/She pursues attainable goals and objectives and ensures they are accomplished.
8. **Responsible:** An entrepreneur should be responsible in the sense that he/she must be in full control of the resources and ensures that they are not wasted. He/She manages all available human and material resources of the enterprise to the optimum and does not give room for extravagant spending.

Entrepreneurship Education

Entrepreneurship can be described or defined as a clear manifestation of manipulative skills of an individual's intelligence as demonstrated in creative performance. Entrepreneurship education is the education that provides skills acquisition in the process of providing individuals with the concepts and skills to recognize opportunities that others have over looked and to have the insight, self-esteem and knowledge to act where others have hesitated (Umar, 2008). It helps the individual to be self-reliance and self-employed for life. In line with this, Elechi (2009) viewed entrepreneurship education as an instrument that empowers youths to be in control of their future. He went further to enumerate the benefits of entrepreneurship education to include among others:-

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1. **Skill Acquisition:** It will help students to establish bases for knowledge about the function and operation of a business and develop some level of familiarity and comfort with business environment such as technological change, the micro enterprise etc.
2. **Developmental Role:** It will play an important role in the development of the occupational knowledge, job skills and work experience among teachers and students.
3. **Creation of Employment:** It will offer opportunities to students for job experiences and for earning, saving and investing money at an earlier stage of life than their peers and, also enhancing their abilities and sense of self-worth.
4. **Minimizing Unemployment:** There will be a great reduction in the high rate of unemployment (particularly among skilled graduates) in our society: Self-employment and ownership of businesses will be viable for the aspirations of youths in the 21st century and beyond.

The Role of Mathematics Education in the Attainment of Entrepreneurial Skills

Mathematics is the key and backbone of almost all the subjects, it has been known worldwide as a life science because it is the knowledge that is required in many professions in the day by day activities of people (Ojo, 2002). Since Mathematics is a subject needed in many professions in the day by day activities of people therefore, Mathematics education has a vital role to play in the attainment of entrepreneurial skills among the Nigerian youths in the following ways:-

1. There is need for an entrepreneur to have basic knowledge of Mathematics in order to set-up meaningful business outfits viable enough to stand the test of time. For instance, in local businesses like carpentry, tailoring etc accuracy and precision in measurement should be the cardinal skills for excellence.
2. An entrepreneur needs the knowledge of Mathematics to plan and execute his business effectively. The skill of estimation and approximation and even projection are very crucial for effectiveness in routine business activities.
3. An entrepreneur needs the knowledge of Mathematics to know the progress of his/her business. Stock-taking of business affairs applying the basic statistical tools is very essential and fundamental in assessing progress in business and skilled service delivery.
4. With the knowledge of Mathematics, an entrepreneur can invest his/her money wisely and effectively in a business. The knowledge would help greatly through sorting and classification of products, bringing to bear the force of demand and supply to take wise decisions.
5. An entrepreneur with Mathematics education background would know the dimensions of his/her business and assess oneself of progress or otherwise in the business. Prompt inventory of business affairs gives a clear directional focus.
6. With the knowledge of Mathematics, an entrepreneur can keep records of expenditure. Book - Keeping is very crucial and important in any business activity, using various Mathematics tools e.g percentages help to clearly identify the progress being made and prompt action for modification in strategy as the case may be.

The Roles of Mathematics Teacher

According to Elechi (2009) the Mathematics teacher has important roles to play in the attainment of entrepreneurial skills in the Mathematics students. Some of the roles are:-

1. The Mathematics teacher should be able to identify students. Some of the roles are:- important for the attainment of entrepreneurial skills.

2. The Mathematics teacher should teach the concepts with a double aim of acquiring the knowledge as well as the skills that can help in setting up a business or trade. Emphasis should be on concepts like Addition, Subtraction, Division, Multiplication, Profit and lost, Percentage, Simple Interest and others.
3. The Mathematics teacher should link up with various existing entrepreneurs/ industries to explore their mode of operations. And with first - hand information from such stakeholders, students would adopt the ideas and viable innovative will be enshrined.

Problems Militating Against the Development of Entrepreneurial Skills through Mathematics Education

Some of the problems militating against the attainment of entrepreneurial skills through Mathematics Education are as follows:-

1. **Lack of Qualified Mathematics Teacher:** A good classroom teaching /learning situation is determined by a good teacher and his role. Unfortunately, in most of our secondary schools in Nigeria, there is the problem of qualified Mathematics teachers. For that graduate of other related areas like Physics, Computer, Engineering and others are employed to teach Mathematics in secondary schools. Such teachers cannot teach or guide the students learning into profitable channel.
2. **Tools / Equipment Resources:** Without the necessary tools needed for teaching / learning to take place even the qualified teachers will be handicapped. For that, there should be availability of the necessary equipment for effective teaching / learning to take place.
3. **Class Size:** Most of the Government schools in Nigeria are over-populated with students. The classes are congested and difficult for a teacher to handle therefore, government should make provision for more classes as well as more teachers for effective teaching and learning to take place and also to impart the knowledge of entrepreneurial skills in students.

CONCLUSION

Entrepreneurship education has the advantage of equipping an individual with skills necessary to be self-reliant and will be able to plan and identify business opportunity, utilize resources with high level of innovativeness, be able to motivate, direct and delegate other sectors to ensure an efficient synthesis of resources, and to be exposed to entrepreneurial skills.

Therefore, to produce self-reliance and competent teachers who would serve as role models and to direct the nation's development through the knowledge of Mathematics education in the attainment of entrepreneurial skills, entrepreneurship education should be made part and parcel of teacher education curriculum. In fact, the Mathematics education should be taught at all levels and the emphasis should commence at the junior secondary school level of education where the foundation of technological, scientific, cultural, political and economic development are laid.

A survey studies on trades like welding, carpentry, tailoring, soap and detergent productions to mention but few were carried out and the findings indeed pointed substantially at the need for formal education, specifically Mathematics education as crucial and fundamental in the attainment of entrepreneurial skills for sustainable job creation among the Nigerian youths.

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RECOMMENDATIONS

The attainment of entrepreneurial skills through Mathematics education, the development of the right type of entrepreneurial skill and the effective enhancement of entrepreneurship education among teachers and students can be achieved through the following:

1. Curriculum should be reviewed to include entrepreneurship as part of teacher education at various levels of education so that the products do not only strive for self-employment and self-reliant but also to be employers of labour.
2. Workshops and seminars should be organized by the government on entrepreneurial skills acquisition and development for teachers and students at all levels of education in Nigeria.
3. Science Teachers Association of Nigeria (STAN) and Mathematics Association of Nigeria (MAN) should specifically organize regular workshops, seminars on entrepreneurial skills acquisition and development for their members.
4. Government should make adequate and sufficient financial allocation available to schools and agencies to enhance the sustainability of introductory technology equipment.
5. Every Nigerian should endeavor to shun all forms of corruption so as to move the nation forward to a greater height in the scheme of national development.
6. Entrepreneurship skills should also be encouraged through the various mass-media.

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