

## **Mathematics Teachers Motivation, a Veritable Tool for Employment Generation and Sustainability in Nigeria**

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**Abstract:** *The role of teachers is critical to the realization of Employment Generation and Sustainability as it contained in the Innovation and Entrepreneurship: Action Path to National Development. Therefore teachers must be motivated with relevant teaching materials, laboratory, e-library, rewards and fund, if they must serve as it is expected. It is only with well-motivated, informed and adequately empowered teachers that the resources of our environment can be harnessed to achieve Education desired goals. Based on this premise, this paper suggests ways and recommends therefore that teachers should be motivated through provision of laboratory, e-library, electronic classrooms, fund to purchase computer, CD, VCD, DVD, provides in- serve training, workshop, and conferences. This will bring about Employment Generation and Sustainability which in turn will fast track the attaining of innovation and entrepreneurship: action path to national development.*

**Keywords:** *Motivation, STEM (Science, Technology, Engineering, and Mathematics).*

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### **I. Introduction**

Abubakari (2010) pointed out that a constructive way of achieving Employment Generation and Sustainability in Nigeria is through a functional Mathematics Education. The Federal Government of Nigeria has said that education is an instrument par excellence for effecting national development (FME 2013). This is thus reflected in the several revisions of National policy of Education since 1977. This 6<sup>th</sup> edition has a goal of repositioning the Nigeria Education sector to effectively meet the challenges of millennium development goals (MDGs), National Economic Empowerment and Development Strategies (NEEDS) and Education for All (EFA). This will make Education relevant to the need of the Nigeria Economy (which is a desire to reducing poverty and giving priority to small and medium scale enterprises) and create a good society that can compete globally. In a bid to achieve this, trade/entrepreneurship subjects numbering 36 have been introduced to senior secondary schools. In addition, there are Technical and Vocational Education and Training (TVET) centers, Technical Colleges and Vocational Enterprise Institutions (VEIs). The major goal is to provide Manpower in the applied sciences, technology and business particularly at craft, advanced craft and technical levels, and also to provide technical knowledge and vocational skills necessary for agricultural, commercial and economic development to give training to individuals for self reliance economically. These objectives can hardly be attained if the comfort of teachers, a major stakeholder is not put to consideration. This paper therefore focuses its discussions on the following subheadings:

- 1) The Mathematics teacher and motivation.
- 2) The Mathematics teacher and the Curriculum
- 3) Motivating the Mathematics teacher for employment generation and sustainability.

### **II. The Mathematics teacher and motivation**

Education obviously is very central in every human endeavour. In order to realize educational goals of any Nation, there is the need to attend to certain unavoidable variables such as teaching materials, methods of teaching, the curriculum, the students and the teachers. Iji and Uka (2012) believes that Out of these identified variables, the teacher remains the most important. To them, whatever inventions, improvements or achievements in the educational sector, the teacher remains the centre of implementation. Irrespective of technological advancement, the teacher is indispensable. As teacher factor is crucial to achieving educational goals, her wellbeing is imperative. (Alamina and Adaramola 2007). The hierarchy of needs is a theoretical model of five needs, which Abraham.H.Maslow believes every human being has. These needs range from physiology and soft needs to, love and belongingness, self-esteem and finally at the apex of the hierarchy are the needs for self-actualization.

Self- actualization is the most famous concept of the needs hierarchy theory. Self- actualization means using our abilities to the limit of our potential abilities. Elliot, Kratochwill, Littlefield, Cook and Travers (2000) as cited in Abraham (2004) pointed out that self- actualization is a growth concept and that teachers move towards this goal as they satisfy their basic needs. Self- actualization as in Maslow's needs theory refers to that

tendency (in spite of outright satisfaction of lower needs) to feel restless unless one is able to be all that he can be. It is therefore important for policy makers to encourage teachers, recognizes their potential and guide them into activities that will enable them feel both competent and fulfilled. Also, reinforcement theory believes that positive motivation is very important. Motivation can be intrinsic (internal) or extrinsic (external).

Intrinsic Motivation is a psychological feature that arouses an organism to act towards a desired goal and elicits controls to sustain certain goals towards directed behaviors. It can be considered a driving force; a psychological drive that reinforces an action toward a desired goal. (Wikipedia 2012). Extrinsic Motivation on the other hand refers to the performance of an activity in order to attain an outcome, whether or not that activity is also intrinsically motivated. Extrinsic motivation comes from outside of the individual. Common extrinsic motivations are rewards (for example money or grades) for showing the desired behavior, and the threat of punishment following misbehaviour. (Wikipedia,2006). In Comparing Intrinsic and Extrinsic Motivation, Social psychological research has indicated that extrinsic rewards can lead to over justification and a subsequent reduction in intrinsic motivation such as the threat of punishment, against performing an activity (Wikipedia, 2012). This buttressed the reason why teachers become discouraged in Nigeria after Independence. Before Independence Ogunkunle (2007) recorded that once upon a time teachers guarded their professions and the pupils they are teaching jealously. They were both efficient and competent in carrying out their duties. Today, Nigeria certificate of Education (NCE) and Bachelor of Education (B.Ed.) certificate teachers teach Mathematics in Schools without the capability of providing students the good foundation required for further studies in Science, Technology and Mathematics (STM) related courses. The reasons are not far fetched. This could be traced partly to some policies made by the "Government in power" at every point in time. The Governments' policy on education between 1966 and 1975 led to "Brain drain" in the 70s (Nigeria at 50 compendiums). The lecturers in various higher institutions got employment outside the country and left for greener pastures. Also *from* 1983 to 1993, National Economic Emergency was declared, the budget was cut down and a return to farming was encouraged. Structural Adjustment Programme (SAP) came up in the 80s in order to reschedule National debt. The Local Governments Councils were given the mandate to pay teachers salary. The unfortunate result of the policy was that majority of them could not meet up the obligation. Thus, teachers took to another means of taking care of their families. In major cities in Nigeria, most females' teachers became traders and their male counterpart contractors. From 1993 to 1998 the economy suffered further decline and political institutions were abolished. Most landlords will not rent out their buildings or apartments to the teachers because teachers salaries are no more paid regularly. The society no longer respects the worth of teacher and so teachers' morale fell and they do not labour tirelessly for their students any longer. All these and more has led to the downward trend of teachers' discouragement and thus negative attitude to the profession. This and more are evident in constant poor results recorded by students in Mathematics over the years.

### **III. The Mathematics teacher and the Curriculum**

There is need to thwart this trend if Nigeria will attain the NEEDS goals. Akale (1991) opined that one of the major problems originating from the study of curricula development effort is the recognition that the teacher is a key factor in determining the quality and success of the curriculum. Lassa (1985) posited that no matter how good a curriculum is, without motivated teachers, there will be no achievement of desired goals. Motivation is the stage of being induced to act; a drive, desire or force that moves individual towards achieving set goals. Positive motivation generates and sustains interest. Thus, when a teacher is well motivated, he/she performs his/her duties actively and conscientiously. Now that the Nation needs Employment Generation and Sustainability, the country needs a very strong positive motivation to bring back the discouraged teachers.

### **IV. Motivating the Mathematics teacher for employment generation and sustainability**

It can be pointed out that well motivated teachers are good human resources that can also produce excellent learners or manpower for the nation's development. Therefore they need motivation to be able to contribute their quota to millennium development goals (MDGs), National Economic Empowerment and Development Strategies (NEEDS) and Education for All (EFA). Adetula (2012) opined that introduction of electronic classroom mechanism can motivate teachers. This implies that there will be production of mathematics *soft wares* (lessons) into different media like CD, VCD, DVD, memory card etc.

Also, teachers' must be technologically sound and ICT literate. Construction of laboratories and e-libraries are good motivator for teachers because they will aid teaching and learning electronically and ease stress for teachers. Modern Equipment like magnetic board, white board, smart board and Internet facilities should be provided in the schools to facilitate teaching.

Simon, Love and Costly (2011) believed that adult and non-formal education seeks to empower adults with requisite knowledge and skills for personal improvement and maximum participation in the development of their communities. A teacher that is well equipped through further training and retraining will participate properly and positively in Employment Generation and Sustainability. Teachers should be encouraged to further

their levels of education through In-service trainings or attend seminars, workshops, refresher courses and conferences for improvement at their employer's expenses.

Funds should be made available for textbooks, computers, CD, VCD, DCD, and any other useful equipment for teaching and learning at all levels of Education in Nigeria. Salary should be revisited and soft loan made available to build their own houses. Ugwu and Etiubon (2011) pointed out that teacher remain a very crucial element as far as Nation development is concern. No nation can grow above her education, teachers remain determinant factor to educational development hence teachers motivation is crucial. (MDG Africa Steering Group 2008).

## V. Conclusion

In this paper, it is being pointed out that teacher motivation is one of the major keys to the success of Employment Generation and Sustainability in Nigeria. This should be in terms of good laboratories and workshops for technical teachers, e-libraries, electronic classroom mechanisms, improved teachers competence, promotion, and provision of in-serve education courses, bursary awards for education students, seminars, workshops and conferences. Finally, make soft loan available for teachers to own their buildings.

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