



ENTREPRENEURSHIP DEVELOPMENT IN METALWORK EDUCATION A KEY TO NATIONAL DEVELOPMENT

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ABSTRACT

The economy of nations is developed by quality of high-level man power produced by educational institutions. Thus, educators must prepare individuals for entrepreneurial training that will richly transform the economy, obtain through quality education. This paper tries to discuss entrepreneurship development in Metalwork Technology Education, through quality planning, entrepreneurship development in Nigeria, general attitudes and dispositions expected by Metalwork education, the relevant of practical work in teaching of Metalwork technology, entrepreneurship development role in government and non-governmental organizations, characteristics for success in self-employment, public policy and scientific development, myth of technology and efforts of Nigerian government towards technology entrepreneurship for the attainment of national development as a way forward for self-reliant and success to the national development entrepreneurship. The finding of the paper shows that quality of teachers, students is a factor of influence, and is obtained through proper planning to analyze capabilities of resources with effective use of teaching learning approaches. Recommendations was made on equipping students to live effectively on modern age of science and technology through implementation of policies on curriculum designed, use of resource materials facilities with adequate funding of entrepreneurship education to enable Metalwork more entrepreneurial.

INTRODUCTION

Metalwork is the study of metals and its properties identification and various ways of making use of them, John and Zakaria (2008). In manufacturing process, the use of welding, forging, extrusion, spinning, casting, pressing, work hardening etc are all an entrepreneurial processes associated with metalwork. Thus metalwork is an act of manipulating metals in entrepreneurship involving such fields like foundry, forging, sheet metal, heat treatment all in an art of skill acquisition in making a living. Education as a backbone to social development and economic

transformation is of no doubt a tool for rapid development. Entrepreneurship remains a vital tool for the enhancement of the economy, the individual and the society. Skills acquisition in metalwork education helps in the attainment of entrepreneurial development. The quality of education is obtained only when quality of learning and teaching in any subject takes place when pupils interest and curiosity are stimulated and motivated. This can only be obtained in a well-planned courses and lessons, using appropriate teaching method, using effective presentation, setting clear targets goals to be achieved, and ensuring pupils needs are addressed. Entrepreneurship has been defined by different authors. Timmons (1994) as cited in Omole (2008), describes entrepreneurship as a human creative act involving the building of an enterprise or organization. Others like Kourilky (1995) cited in Omole (2008), argued that the

true entrepreneurship is characterized by three attributes: opportunity recognition, marshalling of resources and creation of a business venture. Therefore, entrepreneurship is said to be an ability to seize opportunity and turn ideas into action, ability to plan and manage projects.

Quality Planning

In technical education, the quality of both teachers and students can be a factor of influence. Planning is a crucial and has influence on level of attainment. Thus, departments that plan their work take full account of the extent of pupils' prior knowledge and experience. Then they analyze capabilities of resources, and plan their courses in planning and assessing them. Later the use of an effective learning and teaching approaches and procedures with sound advance on appropriate progression in future course choice.

Entrepreneurship Development in Nigeria.

An enterprising mind sets generate models of wealth creation. The dispensation of entrepreneurship education provides the awareness in them after successful completion of entrepreneurship education programme on how to begin a small scale business. Entrepreneurs obtain awareness and some practice opportunities, challenges, procedures, characteristics, attitude and skill needed for entrepreneurship. Now that Nigerian government felt that entrepreneurship is the only way out on the educational agenda due to downsizing, retrenchment and other restructuring programmes. It is believed that as engines of the economy, entrepreneurship education plays a vital role in-shaping attitudes, skills, and culture and by widespread exposure of people to entrepreneurship will make them become entrepreneurs in the future. Today our colleges are producing graduates in specialized skills, in the areas of vocational, technical and business education. The colleges are required to adopt the entrepreneurship education programme of government which shall be compulsory for all the students and specifically to equip students with enterprising attitudes capable of turning them into self-employees on completion of course of study.

General Attitudes and Dispositions Expected by Metalwork Education Entrepreneurs

Landkard, (1996), enumerated the followings as the general dispositions required by technical graduates: ambitions, cooperative/helpfulness, adaptability, resourcefulness, independent, initiative, accuracy, precision, efficient quality of work, speedy achieves results, responsiveness following directives, dependability, punctuality, responsibility, neatness, orderliness, good manners, personal appearance, carefulness, alertness, perspective, dedication, devotion, honesty and loyalty.

Entrepreneurship as described by Sahlman (1987) cited in Omole (2008), as the relentless pursuit of opportunity without regard to the resources currently controlled. In the opinion of Halligan (1989), entrepreneurship is described as reform, innovation, wealth and risk taking. In fact Izedonmi (2006) said only the fools down tools, if you want to remain a poor man, be an employee only; an employee is always a servant and a servant cannot create wealth. In other words, people without entrepreneurial thinking or ability remain at the lower level of the ladder of wealth.

The Relevant of Practical Work in Teaching Metalwork Technology Education Entrepreneurship.

Olaitan (2001) describes - learning by doing as a method of imparting knowledge help to match theoretical with practical knowledge. Thus, practical work assist in developing potential that will enable them to discover relevant new ideas and techniques. Therefore theoretical knowledge is only valuable with adequate practical work. As such metalwork is a practically oriented trade with entrepreneurial teaching. Uwameiye (1998), regards vocational and technical education as a medium of providing youth with employment in industries, commerce and other enterprises by exposing them to experiences that provide the manipulative, cognitive, and attitudinal skills that make them to qualify for a job or career. Thus, skill training remains to be the central focus of practical work in metalwork entrepreneurship. Practical work molds the minds of students about the world of work, and so explore various areas of self-employment.

Entrepreneurship Development Role in Government and Non-Governmental Organisation

The establishment of institutions for man-power development at various levels, result in oriented policy objectives as a Nigerian's strategy to plan human resource for economic development and

to promote entrepreneurial activities and develop investor confidence. The considerations to look in includes:

1. Making the economy market – driven and private sector.
2. Ensuring safety of lives and properly through fighting the increase crime wave across the nation.
3. Encouraging ventures that will create jobs and alleviate poverty.
4. Promote production and security for the populace.
5. Rehabilitation of collapsed infrastructure resulting from prolonged military rule-roads, power, power supply, pipe-born water, health facilities, educational facilities, telecommunication etc.
6. Setting up strategies for action against corruption.

Characteristics of Success in Self Employment

The necessary characteristics for a successful entrepreneurship development are as follows:

- i. Entrepreneurs must pose confidence to make decisions. This helps to determine success or failure.
- ii. Entrepreneurs must have determination and persevering.
- iii. Entrepreneurs should possess creativity and innovating
- iv. Successful entrepreneurs should have a need to achieve. This helps constantly achieving new goals.

The Federal Government of Nigeria set up industrial development centre in various states of the country aimed at development viable and modern small-scale industries for the realization of millennium development goal and to improve the existing small-scale industries through efficient techniques of production and better organization and management methods. The point here is that the place of small scale industries may have a strong link to the boost of large scale industries. They help in reducing extreme poverty, hunger, promote gender equity and empower women thereby leading to environmental sustainability. The main functions of industrial development centres is to:

- i. Provide employment opportunities
- ii. Provide training of entrepreneurs and staff including management and staff.
- iii. Applied research into industrial products design.
- iv. Provide industrial extension services.

Public Policy and Scientific Development

Science and technology has been the greatest intellectual adventure of our age, and great hope of our troubled and restless world. Science represent the best and greatest hope for mankind. There is clear cut between the world of politics – a world of hate and danger of irrational beliefs and fears of mass manipulation and disgraceful blots on human history. In contrast science different values international in scope, forging friendship and working relationships across national boundaries and political system encouraging habit of thought, and ultimately leading to fresh knowledge and technology that would benefit all mankind. The connection between science and policy become increasing due to scientific education among the public rise in specialized advocacy groups which have been effective in getting publicity and shaping policy. Scientist best serve public policy by living within the ethnics of science, not those politics.

The Myth of Technology and Efforts of Nigerian Government Toward Technology Entrepreneurship.

Metalwork as a technology based serve as a cause of social development to the developing countries must stand a chance of becoming true elements capable of helping develop a new civilization. In an effort towards fostering technology entrepreneurship, the federal government of Nigeria invested and controlled some vital projects which were fundamentally crucial in expanding economic absorption capacity of technology. This explains why government invested heavily in oil, refineries, fertilizers and petro-chemicals etc. Other infrastructure federal government plays role in nations technology includes the road construction, water and sea transport development, ports development, electricity and manpower, telecommunication. In addition, bilateral cooperation were made with industrialized nations to form profits aims at transferring technology to Nigerians in iron and steel complex Ajaokuta, machine tools at Osogbo, Peugeot automobile, Steyr (Nigeria) Limited and Volkswagen of Nigeria, Lagos. To this, the effort towards the myth of technology to Nigerian entrepreneurship has been past dreaming

Conclusion

The entrepreneurship in metalwork technology is of no doubt science and technology based through manipulation and turning ideas into action. When planned, and by setting clear targets will lead to an enterprising through which small and large scale business will strengthen individual, and the economy of the nation. The uses of practical skill knowledge assist in developing the potentials with mold of minds leading to success in self-employment. The advent myth of science and technology efforts however helps greatly in metalwork entrepreneurship in various fields of endeavours like foundry, forging, welding, sheet metalwork, heat treatment, extrusion, casting to mention but few, this helps in economic transformation and social development. The quality of an enterprising mind depends on the characteristics that may help in

constantly achieving the goals desired for. The setup of development centres by federal government on governmental and non-governmental organizations helps greatly towards entrepreneurial development in Nigeria especially in metalwork technology.

Recommendations

The followings are recommendations made by the researcher.

1. The curriculum designed should equip students to live effectively in modern age of science and technology.
2. The curriculum should be diversified to cater for all talents to participate in open opportunities.
3. Need for proper implementation of policies e.g. UBE programmes.
4. More credit unit load should be allotted to entrepreneurship courses.
5. There should be provision of resource materials infrastructural facilities, development and utilization.
6. Employing successful entrepreneurs helps teach students on how to succeed in business.
7. Adequate funding of entrepreneurship education
8. Provision of interest free loan facilities to the graduates to enable them enterprise in their choice.
9. Gender disparity should be discouraged to the bearest minimum level.

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