

FUNCTIONALITY AND RELEVANCE OF TECHNOLOGY AND HOME ECONOMICS EDUCATION TO NATIONAL DEVELOPMENT

Uzoka, F. A. and Okafor, P. O

Abstract

Relevance and functionality are two fundamental issues in technology education and Home Economics education in Nigeria. Through technology education the populace seeks to improve the productive capacity of societies, their economy and researches. Home Economics is relevant if it cares for the needs and welfare of students and society. The meaning of national development was stated. A technology education is functional if the purpose for which it is designed is fulfilled. This paper reports a scrutiny of technology education and Home Economics education in Nigeria. Problems of technology education and Home Economics education are enumerated. The functionality of technology education and Home Economics education are highlighted. Conclusion and a couple of recommendations are made.

Introduction

Home Economics is a trade as well as a profession according to how one perceives it. Home Economics is a way of living. It is more than a job or a profession. It calls for a kind of educational experience that transcends anything considered as vocational and professional training. Olaitan and Agusiobo (1981) defined Home Economics as an applied science subject involving the study of all the elements of family living, individual development and interpersonal relations. Anyakoha and Eluwa (1991) defined Home Economics as a broad field of study that is primarily concerned with the improvement of the welfare of individuals and families. It deals with all aspects of family life. It draws knowledge from many disciplines such as biological, physical and social science, humanities and arts.

Anyakoha and Osuala (1994) described technology as the way of doing things through application of knowledge derived from scientific investigation to natural forces and materials. It leads to the development processes and devices indispensable to the stable enhancement of the quality of life.

Ezeani and Sindiku (1994) defined education as life-long processes through which individuals acquire skills, knowledge and competence necessary for effective functioning in the society. Education encourages cultivation and practices of virtues such as diligence, prudence, justice, fortitude, patience and patriotism.

Implicit in the above exposition is that Home Economics education is a field of study that provides the necessary knowledge for guiding and assisting human beings towards a more self rewarding and fulfilled life compatible with their society, within the context of home management and family life.

Technology education is primarily a functional education designed to equip man with scientific knowledge as well as practical and applied skill for the service of his society. Enyibe (1987) views technology education as all man's activities which enabled him to acquire a practical skill dealing with scientific, industrial, commercial or even traditional methods and their use so that he may become a productive human being or citizen.

Technology education is a process of harmonizing the individual with the environment in such a way as to enable him develop his practical, mental and emotional abilities for the happiness and welfare of humanity.

The term development has no single universally acceptable definition construction. To the layman, development implies construction of roads, building of more schools, increase in the enrollment of students intake etc. This is inadequate.

In the opinion of Aghadinumo (1997) development is a multi-dimensional process involving the achievement of satisfying the needs for food, health, potable water, shelter, clothing, education security, communication, energy and leisure. Any society that satisfies these needs to large extent is

said to be developed.

National development involve the total mobilization of the resources of a particular country. It is the movement of the country's social system upwards. The new Oxford Thesaurus of English Dictionary (2000) defined functional as practical, useful and serviceable. Relevant is defined as pertinent, applicable, fitting, suitable, proper, connected, appropriate, related and linked.

National Policy on education (1981) stated the aims of technology education as:

- a. To provide trained manpower in applied science, technology and commerce particularly sub-professional grades;
- b. To provide technical knowledge and vocational skills necessary for agriculture for agricultural, industrial commercial and economic development
- c. To provide people who can apply scientific knowledge to the improvement and solution of environment problems for the use and convenience of man.
- d. To given an introduction of professional studies in engineering and technologies
- e. To give training and impact the production of craftsmen, technician and other skilled personnel who will be enterprising and self-reliant.
- f. To enable our young men and woman to have intelligent understanding of the increased complexity of technology.

No doubt the policy statement and objectives of technology education in Nigeria are laudable, clear and achievable, where the problem lies is on implementation. Since its implementation one observes structural and operational deficiencies and inefficiencies, which become barriers to effective technology education in Nigeria.

Problems of Technology Education In Nigeria

Many of our current technology education programmes have failed to prepare the school leavers be it at secondary or at the primary school for useful living. The first International Forum of African Science Educators (FASE) in Harare (1986) recognized that our curricula are rather deficient in technology for the transformation of rural life (Okoye, 1997),

The greatest problems of technology education is this country is inadequate number of useful qualified teachers (Enem, 1998). Teachers are indispensable in an educational system. Acknowledging this, the National Policy on Education stated that no education system can be better than the teachers who operate it. It follows that to get good quality technology education, the teachers and other supporting staff operating the system must be well trained to be able to impart same to the students. Etuk (1987) noted that the quality of technology education depends upon the quality of teachers mainly. All the effort of federal government of Nigeria toward the provision of adequate qualified technology teachers did not produce the desired fruit due to inadequate funding, lack of accommodation, equipment and political instability. Under the atmosphere of unqualified incomplete technological teachers, the objectives of technology education could not be achieved.

Another barrier to effective Technology Education is inadequate provision of facilities, equipment and tools. Technology Education needs equipped workshop facilities, laboratory and adequate textbooks. This is because course content and practical exercise go hand in hand. Oranu (1994) discovered the problem of workshop equipment, materials and textbooks and other technology material in a data collection trip. He reported an astonishing discovery of some workshop equipment and material rusting away in the containers they were brought from by the suppliers in some schools visited. Adeife (1993) also noted that the first problems confronting technical institutions in Nigeria is that of providing adequate facility, equipment and tools. The problems experienced in education revolves around poor finance. A sound technology policy is only achievable when there is adequate funding or student projects, research and development funds are also needed to procure adequate and up-to-date workshop equipment, tools and other essential materials. For meaningful training, the students have practice in laboratories and workshops that are well equipped with modern machines and equipment. These inadequacies need to be addressed to realise the aims and objectives of quality control of technology in Nigeria.

The National Policy on Education (1981) although provided for technology education but liiled to provide precise direction/guidelines for its implementation. Otubclu (1987:23) slated that lack of sense of direction made it that: "In Nigeria, we do not seem to have a sense of direction in the

area of technical and technological development since we neither seem to identify our technological status nor do we know our technological destination". If technical education is limited to dropouts of Grammar Schools as provided for in education policy there is the danger that talented people will not be attracted to that field of technology. This could lead to stagnation in the field of technology.

Vocational Education

According to the Federal Republic of Nigeria (FRN, 1981) vocational Education is a form of education obtainable at the technical college, whose programmes are geared towards preparing individuals to acquire skills, basic scientific knowledge and attitude required as craftsmen and technicians at sub-professional level. National Policy on Education goals for vocational education include to:

- a. Provide trained manpower in the applied sciences, technology and business particularly at craft, advanced craft and technical levels.
- b. Provide technical knowledge and vocational skills necessary for agricultural, commercial and economic development.
- c. Give training and impart the necessary skills to individuals who shall be self-reliant economically.
- d. To give an introduction to professional studies in engineering and other technologies.

Ogunyemi (2001) stated that Vocational Technical Education is an area of study that covers instructions in technical and Vocational Education programmes offered at the Universities, Polytechnics and Colleges of Education for the production of technologists, technicians, craftsmen and or artisans.

The above definitions boils down to the fact that Vocational Technical Education (VTE) has its primary philosophy as to train people for gainful employment and to make them self-reliant economically, politically and socially. It is therefore that phase of education programme that seeks to help individuals acquire specific manipulative skills required to function effectively in a rapidly changing society like ours. By implication, a student on completion of a VTE programme is expected to have acquired basic expertise in a particular vocation, which will help him to be gainfully employed and become a usual citizen of Nigeria. It then stands to reason that VTE is given its rightful position! in the Nigerian socio-economic and educational policies and programmes, the issue of functionality would be adequately checked.

Home Economics is part of vocational education. It is a skill-oriented course. And the effective implementation of this subject at all levels of education must take cognizance of this and expose students to extensive practical experiences while still emphasizing theory. This demands that there should be a good supply of both consumable and non-consumable teaching materials. Evidence however abound that there is serious scarcity of facilities for teaching Home Economics at all levels of education (Uzoka 1998).

Major Constraints to the Implementation of Home Economics Education in Nigeria.

(1) **Ignorance:** Many Nigerians still view Home Economics as subject for females or homemakers alone. It has always been seen as a subject that cannot take us outside the four walls of the home and kitchen, since it is culturally reserved for women. Secondly, many are ignorant of job opportunities for home economists in related industries that is why the subject should be done by both male and female hence place it as a minor subject in school curricular for everybody male and female (Uzoka 2002). Boys do not perceive themselves as home-makers. They find it embarrassing to sit and be taught skills related to cookery, sewing and home management; since they believed that their skills are socially and culturally relevant to women alone. They're in this belief that home economics refers to seamstress, housemaids, female cooks, future wives and another.

The world is presently experiencing information technology, the family cannot be left out and so Home Economics must not be left out. After all, many families today own computers. Home Economists must be familiar with e-mail, Internet, world wide-web (www)

information technology of hardware, soft ware and media for collection, storage, processing, transmission and presentation of information. (Ialero and Guadette 1995)

Through information technology individuals can access information from any part of the world hence the new expression "the global village" Home economist cannot be left out, we must be computer literate in order to access and utilize the enormous data being made available by the new information technology.

(2) **Nature of home Economics Curriculum**

The Home Economics Curriculum for the junior secondary school is poorly arranged: it is over-crowded, over loaded and appears monotonous in content in some places. Where teachers are to follow the scheme as presented, teaching is bound to be boring to the children and the resultant effect will be counter-productive.

(3) **Industrial Attachment**

Anyakoha (1988) noted that industrial training gives the students opportunities to practice what they have learnt in the classroom and school laboratories. It is necessary for students to appreciate the scope of their task in home economics educational programmes. Looking through the programme for the junior secondary schools, this important aspect is not reflected. That what children at this stage need is gingering up their interest and debunking male and adult prejudices about the subject. This can be achieved by excursion to cottage industries related to home economics-food processing plants, breweries, good hotels, service and textile industries.

Through this, children can see opportunities waiting for them after school.

(4) **Inadequate Facilities**

Home Economics like other vocational and technical subjects requires basic facilities for effective teaching and learning. A survey of most of the secondary schools would show a gross lack of these basic learning and teaching items. Anyakoha (1988) has reported acute shortage of facilities in the implementation of home economics programmes at all levels of education in Nigeria. The much that is available hardly go round so they reserve it for final year students doing home economics.

(5) **General Apathy**

There is general apathy among educational administrators, teachers and students towards home economics education. Many people do not want to suffer in an extra-ordinary way in order to get things done. Students want it the easier way out. Many prefer subjects that hardly need any practical work because in these subjects, physical and mental efforts are unnecessary to solve problems.

Functionality of Technology Education and Home Economics Education in National Development

Technology education and Home Economics education are functional if the purposes for which they are designed are fulfilled. The primary philosophy of a vocational technical education is to train people for gainful employment and to make them self-reliant economically, politically and socially. It is therefore this phase of education programme that seeks to help individuals acquire specific manipulative skills required to function, effectively in a rapidly changing society like ours. We have to change our attitude towards our work for things to be better in Nigeria. In the real sense of it, anybody that did vocational education is not supposed to be poor because he has acquired a lot of skills to be self-reliant. The individuals are supposed to withstand all the hardships in this our developing country Nigeria but the reverse is the case.

The paper therefore wants to lift barriers against functionality of Technology Education and Home Economics education so that Nigeria can move forward. It is only through acquisition of these survival skills that Nigerians will be able to survive in our present country Nigeria.

Suggestions for Effective Implementation of Technology Education in Nigeria

There should be commitment towards realizing the goals of Technology Education.

1. There should be increased budgetary vote to Technology Education.
2. There should be empowerment of National Science and Technology Fund (NSTF).
3. There should be provision of related equipment/facilities.
4. There should be enhancement of teacher's morale (remunerations)
5. There should be review of Technology Education programmes.

The Following Will Help in Developing Home Economics Facilities

A resourceful, creative and conscientious home economics teacher with imaginative potentials can develop her teaching facilities in the face of scarcity using what could be obtained locally.

1. **Improvisation:** improvisation involves making, providing or doing with the tools and materials at hand, usually to fill an immediate need. Effective teaching of home economics in the time of scarcity of facilities demands that the teacher should improvise as many of her teaching facilities as possible. Such improvisation could, where practicable be carried out with students. The home economics teacher should see it as an opportunity to concretize her creativity, resourceful than students. (Uzoka 2002)
2. Liaising with the Industrial Technical Education Units in developing facilities for the teaching of home economics
3. Developing and utilizing visual aids extensively in the absence of real objects.
4. Identifying, improving and utilizing locally made materials for teaching Home Economics.
5. Fund generating activities e.g. exhibition.

Home Economists in a developing country such as Nigeria have serious obstacles to the use of information technology however we cannot watch development pass us by. The Nigerian Home Economics education curriculum at all levels must incorporate basic issues of information technology. Home economists must necessarily be computer literate. There is also need for research on how to infuse technology into Home Economics education too.

Conclusion

Technology education is widely regarded as a vehicle for improving the living conditions of man through improved resources utilization to satisfy his needs. The developing country like Nigeria, due to low level of technological education bask in disease, famine, ignorance, debt and hyperinflation.

We should have a change of attitude towards our work for Nigeria to develop. Poverty is one of the problems of a developing country like Nigeria. Avenues for making extra money by low income earners is required. Home Economics and technology education can offer new numerous opportunities in this direction. Home economics and technology can devise ways of identifying appropriate income generating ventures for low inners as well as strategies for well articulated sustainable development programmes for populace like adire production, clothing construction, catering businesses, interior decorations and social development. Home Economics provide functional education in cases of unemployment. Home Economist can be self-employed and employer of labour. They turn out to be useful and contributing citizens of Nigeria. They become assets rather than dependant on the society thereby developing the nation.

Recommendation

1. We should have correct attitude towards our work for things to move in Nigeria.
2. There should be the introduction of elementary technology at the very early phases of educational system.
3. Nigerians should be made to understand that technology is culture-bound. There is no need to transfer technology from developed countries to Nigeria. They should develop their own

- technology and thereby incorporate essentials from the technology of advanced countries.
4. Scholarships should be given to brilliant students and teachers to study all branches of science and technology abroad.
 5. There should be technology and science clubs in schools. More science and technical schools should be established.
 6. The curriculum planners and policy makers should accord home economics education its rightful position both in educational policies and school curriculum.
 7. There is also great need to make home economics compulsory for both boys and girls at primary and secondary levels of education.
 8. Home Economics Education curricular for training instructors/teachers need to be monitored and revised to account data any area of study with the development of technology.
 9. It is only from a well organized, clean and healthy home of well nourished and properly groomed parents and children that we can reach out to build a clean and virile nation. Home Economist and nutritionists should be encouraged to participate in developing plans, food and home management research and that they should be invited to participate in conferences in these areas in this way, home economics would have opportunities to contribute to national development.

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