

Approaches for Enhancing Graduates of Agricultural Education Work Skills Towards Social and Economic Transformation in Nigeria

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Abstract

Agricultural revolution is a fundamental pre-condition for economic and social transformation of a nation. The new agricultural education curricular emphasized on the acquisition of productive work skills by students for paid and self-employment to enable them live effective and meaningful lives and be able to contribute towards the development of society in which they find themselves. For graduates of agricultural education to be functional and saleable in the society, they need improvement and their skills must be relevant. It is in this regard that this paper has considered some approaches for enhancing graduates of agricultural education work skills towards social and economic transformation of Nigeria. The paper identified lack of adequate land as a factor of production, poor funding of agricultural education programmes, inadequate equipment and training infrastructure, irrelevant and outdated curriculum as factors hindering acquisition of work skills by students of agricultural education. It was recommended that teachers need to change their focus on teaching to learner centred approach and that extra-curricular programmes in agricultural education should be revived as this will ensure that every learner has the opportunity to gain work skills at any point of their studies.

Keywords: Enhancing, graduates, agricultural education, work skills, transformation.

Introduction

Education has been the instrument in the development of man to enable him live an effective and meaningful life and to be able to contribute towards the development of society in which he finds himself. One of the reasons for graduates' unemployment seems to be lack of adaptability between graduates abilities and skills needed by labour market. Students' education therefore, must become more purposive, since it must now relate to their areas of work and to employment opportunities in the society.

From the pre-colonial era, agriculture has been the most important economic enterprise in Nigeria with regards to the number of people practising it. According to Agbulu (2008), agricultural education at this period was vocationally and occupationally based. With increasing awareness in education and subsequent movement of more children to school, the responsibility of imparting agricultural production skills to children shifted from homes to school. In schools, there was a shift in the way agriculture was perceived and learnt (Weor, 2011). According to Weor (2011), agriculture was no longer valued as functional sector, but as an arts subject where knowledge can be acquired only for office jobs. Agricultural education, however, should not be restricted to classroom and laboratory; it must go beyond these to affect the society positively. Ogen (2007) noted that the aim of agricultural education is to assist people to develop skills, abilities, potentials and other forms of behavior of positive value to the society in which they live. It encompasses the skills, knowledge and competencies that enhance worker's ability to secure and retain a job, progress at work and cope with emerging challenges (Ochi, 2004).

The new agricultural education curricular emphasized on the acquisition of productive work skills for paid and self-employment through prescribed activities and projects which are inherent aspects of agriculture. Thus, the relevance of agricultural education programme depends on the suitability of the impacts that its graduate make in relation to requirements of the world of work and socio-economic development in general. Work skills are a key outcome of education and high quality training. Effective agricultural education for students can contribute to developing work skills for employment. Enhancing graduates of agricultural education work skills is a double-edged sword. They are empowered to engage in their own livelihoods, while at the same time, they can also provide these skills to the rest of the community as barefoot extension workers.

Career options for graduates of agriculture have been to be employed in public jobs or be self-employed (Ogen, 2007). For graduates to be functional and saleable in the society, they need to acquire relevant productive skills. Agbulu (2010) emphasized the need for individuals preparing for an occupation particularly self-employment to acquire work skills and competencies in different areas of the occupation. This would involve learning and training in organizational and management skills required for the smooth operation of the enterprise. However, graduates of agricultural education are rarely found in agricultural production industries. The few graduates available in crop and livestock farms encounter difficulties in the production of crops and livestock. Therefore there is a need to prepare this generation and place them at the fore front of global strategies for food

security, rural development, social and economic transformation of the society.

Studies by Akinlua (2011) and Boukary (2014) revealed that the educational level of worker accounts for his performance. Greater productivity could be achieved through improved skills or knowledge which could be achieved through proper training and development. Despite the fact that the Federal Republic of Nigeria (FRN) (2009) recognizes the relevance of agricultural education programmes in the school curricular, it appears that the effects of such policy are yet to be clearly visible in the career and self employment intentions of the graduates of agriculture. Perhaps this could be due to low emphasis on the development of work skills in students, hence the need for approaches to enhance graduates of agricultural education work skills toward social and economic transformation of Nigeria.

The Concept of Agricultural Education

Agbulu (2010) defined agricultural education as the provision of systematic learning which are designed to equip students with skills, competences, abilities, techniques, attitudes, knowledge and meaningful practical training required for use in vocational agriculture. Orohu (2011) stated that agricultural education provides learner with sound academic knowledge and skills as well as ample opportunity to apply his knowledge through classroom activities, laboratory experiments, project participation and supervised agricultural experiences.

Agricultural education is a course of study which integrates knowledge and skills in farm programmes and activities aimed at exposing students to the occupation and vocational opportunities in agriculture. It assists in developing skills which individuals need in order to be established and successful in agricultural activities. According to Ochi (2004), agricultural education are those courses or training provided by the various Colleges of Agriculture, trade centres, faculties of agriculture of the universities/ polytechnics and training provided by the universities of agriculture. In the same way, Osinem (2008) described agricultural education as education and training given in agriculture from primary school through secondary and special school to the university.

The primary purposes of agricultural education at all levels of education are to prepare students for careers in agriculture and to prepare for further education in agriculture. Therefore, the teaching of agriculture at all levels of education is meant to prepare learners in vocational agriculture for proficiency in farming. The objectives of vocational agricultural education according to the FRN (2004) include the following:

- i. to develop skills and have scientific knowledge and competencies required in agricultural education;
- ii. to develop an understanding and appreciation of career opportunities in agricultural occupation and the preparation required to progress in production agriculture, agricultural business and other careers in agriculture;
- iii. to develop the ability to secure satisfaction in the placement and advancement in agricultural occupation through programmes on continuing education;
- iv. to develop leadership qualities, attitudes, thrifts scholarship co-operations, citizenship and patriotism by participating in experiences and activities of agricultural programmes;
- v. to develop competencies required by individuals engaged in agriculture; and
- vi. to develop practical skills and competences in agricultural research.

From the above objectives, we need to rethink Nigerian agriculture as an economic activity, which not only requires technology, good climate, markets but one in need of adequate and sustained human capital. The work skills not only prepare the generation for meaningful participation in agriculture, they also provide them with a platform to contribute to the development of the country.

Social and Economic Transformation

There are different conceptions of social transformation. For Dahal (2007) social transformation is a process of wide-ranging change in the thinking, nature, structure, institution, technology and cultural patterns of society through human actions. It is about the elimination of class distinctions and the promotion of mass participation in society. In effort to achieve equity and social justice, the marginalized groups need holistic education. The notion of social transformation, therefore, is all about the integration of the different sections of the society and the establishment of democratic culture engaging both minor and major groups in nation building. The process of social transformation can be explored at both the personal and structural levels (Patil, 2012). Patil (2012) stressed that at one end of the spectrum, social change is seen as an outcome of the development of individuals achieved through education, training and access to material resources.

Economic transformation on the other hand is defined as a dynamic process through which a country's economy, society and institutions modernize and move to a more developed level (United Nations Economic Commission for Africa (UNECA), 2009). Economic transformation is correlated with economic growth through the improvement of productivity in agriculture and other sectors of the economy. Studies by Akinlua (2011) identified the drivers of economic transformation to include:

- a. utilization of improved technologies;
- b. investment in higher educational and skills levels for the labour force; and

c. more efficient allocation of resources.

The concepts of social and economic transformation are inter-linked and mutually re-enforcing. Social transformation implies an underlying notion of the way society and culture change in response to such factors as economic growth and political upheavals. To Adah, Enemali and Negedu (2016), social and economic transformation mean a complete change in the ways people and communities behave profitably in terms of trade, industry and development of wealth or anything worthwhile.

Work Skills in Agricultural Education Programme

Work is an activity involving mental or physical effort done in order to achieve a result. Work performance has to do with possession of skills. Skills as basic ability are the means by which man adjusts to life. Egbe (2005) defined skill as an ability to do something expertly well. Agboola (2004) stated that skills are such a phenomenon that is largely upheld in work organization in Nigeria today. He stressed that skill acquisition is born on the premise that every work or activity in work place requires an amount of competence to be displayed irrespective of the nature and kind of service involved.

Work skills are generally classified into employability and technical skills. Iorbee, Ochedikwu and Tema (2013) refer to employability as a key outcome of education and high quality training; and that employability skills are those basic skills necessary for getting, keeping and doing well on the job. They include attitudes and actions that enable workers to get along with their fellow workers, supervisors and to make sound and critical decisions. Technical skills according to Onifade (2005) in Iorbee, Ochedikwu and Tema (2013) involve more than purely physical activities as conceived by others, but involve mental activity as well. He classified technical skills into the following abilities:

- a. Identification of tools, materials and equipment.
- b. Use of tools, materials and equipment.
- c. Speed and accuracy of work done.
- d. Job planning and analysis of tasks.
- e. Utilization of relevant principles and information
- f. Understanding summative evaluation of overall work done.

In the context of this study, work skills are the abilities of graduates of agricultural education programme to take appropriate decisions and set goals in agricultural enterprises, organize available resources, utilize technical skills in agricultural production, manage risks and take informed decisions toward maximizing profits. This is in consonance with Adah *et al.* (2016) who pointed out that farming skills acquisition is a process by which the business or practice of growing crops or keeping livestock on the farm is properly or well done out of learning and practice for profit maximization.

Relevance of Agricultural Education in Achieving Social and Economic Transformation of Nigeria

In the world, people go to school with the belief that education will enable them participate meaningfully in the society. Full participation in the society requires vocational agricultural education at all levels of our educational system which recognizes the different skills and abilities and provides equal opportunity to all children to prepare for work. No student can acquire all the skills needed in every aspect of the economy. Therefore agricultural education practitioners have a role to play in terms of observing and monitoring students' behavior, attitudes and actions within the environment for proper skill alignment. Equipping graduates with the right skills and providing them with the opportunity to contribute to agricultural development is the first step towards social and economic transformation.

School is indeed an institution of instruction and education has direct positive impacts on economic and social transformation. The study of economic history provides us with ample evidence that an agricultural revolution is a fundamental pre-condition for economic and social transformation. The Brazilian experience is, of course, a striking example of how agriculture can advance beyond its primary function of supplying food and fibre.

The social and economic transformation of a nation is contingent on the quality of skilled human resources in the pool. Agricultural education provides students with work skills that will make them to be productive entrepreneurs as it engenders creative and innovative ideas; enlarges the economic pie and increases personal freedom. The agricultural business environment is changing at a fast pace due to the rapid emergence of technology and globalization. As a channel for entrepreneurial skills acquisition, agricultural education plays the role of improving the economic situation of Nigeria through enhanced production of goods in different areas of specialization. This is achievable through the training of the students in different fields. In the long run, this will help the students to establish their own enterprise. This is in line with the views of Patil (2012) who stated that "for a country to advance socially and economically, its citizens must be creative and productive with a majority becoming job creators rather than seekers"

Building the capacity of Nigerian people and social institutions to create a prosperous society will require a

vast increase and access to knowledge at all levels of our educational system. According to Dahal (2007), participation in the system and structures of society is an essential pre-requisite for social and economic transformation. Dahal (2007) maintained that it is not enough for people to be mere beneficiaries alone; they must be far more involved in decision making process.

The Need to Enhance Graduates Work Skills in Agricultural Production

In order to run any enterprise profitably, the operator requires good knowledge and skills in the activities involved in the production and management of the enterprise. When youths' energies are directed into productive ventures in agricultural production, they would not only immensely acquire the socio-economic gains in it but also reduce restiveness, cultism and insecurity that have bedeviled the nation. Ochi (2014) noted that as agriculture is still an important source of income in the rural areas, investment is needed in special agricultural programme aimed at attracting more young people and that students should be equipped with the agricultural skills to enable them participate in agricultural production. Ochi (2014) maintained that by applying what they have learnt at schools in their villages, they serve as a model for other people, thus establishing their multiplier effects.

Improper use of knowledge is related to low level of information and technical skills of entrepreneurs. Enhancing agricultural education graduates work skills will enable them to cope with the rapid changes in agribusiness environment and run their businesses more efficient and profitably. Recent evidences from the emerging countries clearly demonstrated the fact that knowledge – based economy is liable to bring innovation, create new jobs, generate income and catalyze an inclusive growth and development.

The traditional teaching and learning approaches used to produce public servants for government policies are outdated and do not fit the current end – users needs which are gradually shifting towards problem – solving skills, multi-institutional management capabilities as well as value addition, private sector orientation and market – driven system (Agboola, 2004). This inevitable shift requires an agricultural workforce with new set of skills and competencies, including understanding and mind-set. This agrees with Rao (2006) in Ekele (2013) that skill training is critical for social and economic critical mass of technically and entrepreneurial qualified people who are able to create jobs and increase production.

Approaches to Enhance Agricultural Education Graduates Work Skills in Agricultural Production

We cannot underestimate the power of education to empower people and enable them take charge of their lives. However, we have to be keen to question what kind of empowerment education in present day provides to the young people. We have to concern ourselves with the quality and delivery pedagogy. Education should be made relevant to the learners such that it meets the above mentioned needs and imparts skills useful for application in the learner's environment. Such education should be supported by a curriculum review and or enhancement that focus on equipping the learners for active participation in the society.

Atsumbe and Saba (2008) noted that developing effective work skills in students of vocational education requires a comprehensive training and orientation of both teachers and the students using appropriate modern technologies. He stressed that specific strategic and policy changes thus need to focus on modernizing the curricular, emphasizing analytical skills, problem solving, work skills including Information and Communication Technology (ICT) and teamwork.

Mentoring Approach

Mentoring is a partnership between two people (mentor and mentee) normally working in a similar field or sharing similar experience. Mentoring is now viewed as a way of enhancing young graduates' skills in their career path. It is thought to rest on close inter-personal connections and in some cases, to influence youths through changes in their approach to their careers and lives. Emem and Paul (2015) defined a mentor as a guidance who can help a person to find the right direction and who can help the mentee to develop solutions to achieve his/her goals. Kruger (2009) in Mwara (2011) identified on-farm mentoring as one of the components of agricultural education. On-farm mentoring provides for regular visit by well- experienced and qualified mentors to emerging farmers on the school farm.

Effective mentors are the significant contributors to building successful careers and ventures (Mwara, 2011). He maintained that seasoned professionals already engaged in agricultural development and production, should invest time in mentoring young people into the profession, while parents, teachers and the society should offer an environment conducive for mentoring to take place. Mentoring can be important for a number of reasons such as:

- a. learning the general basis of farming, including both financial and business planning;
- b. training in enterprise in specific financial and operational skills;
- c. dialoguing on what was taught in the formal classroom to transfer the book knowledge to applied experience; and
- d. access to additional resources.

Livelihood Initiative Approach

Woer (2011) explained livelihood initiative approach as an empowerment aimed at enabling the beneficiary to earn a living. According to her, empowerment may be in form of education, land, money and agricultural inputs. The idea behind this is that students should make use of the resources provided to embark on productive enterprise to earn money even while in school. On leaving the school, they are expected to continue with this initial enterprise wherever they go and expand it. The programme is aimed at encouraging students of agricultural education to take up agricultural enterprises as a career for self-sufficiency, increase in food production and decrease in unemployment. The idea behind this is that monetary reward is more satisfying to human beings than any other reward. According to Agboola (2007) in Woer (2011) the implication of this approach is that produce from students' farms should be sold by students for their own benefits in addition to scoring such work for academic assessment. This can be successful if heads of the institutions, teachers, instructors and students cooperate with one another.

Barriers to Using Mentoring and Livelihood Approaches for Enhancing Work Skills in Graduates of Agricultural Education.

Land as a Factor of Production: - It is a well known fact that educational institutions offering vocational agricultural education do not have enough fields for practical to test competencies in skills and may fall short of the expected skills. Crop and animal production are on the land not in the air, but in most of our educational institutions, the administrators most times do not recognize to map out lands for establishment of demonstration farms where students carry out their experimental farm in plots and practicing work skills.

Inadequate Funding of Agricultural Education programme: - Over the years, government has been paying lip service and little attention to agricultural education. Okeke and Eze (2010) stated that insufficient finance is a realistic and practical factor inhibiting the implementation of vocational and technical education sector. According to them, too much noise is made on the pages of newspapers and television about vocational and technical education, but little is done to improve the teaching and learning of the programme in Nigeria.

Inadequate Equipment and Training Infrastructure: - Lack of adequate machines, equipment and tools in vocational agricultural education has created a serious impact to the level of knowledge and basic work skills, which the students suppose to achieve in the area of agricultural production. Okeke and Eze (2010) stated that most vocational education departments, including agricultural education in our higher institutions do not have well equipped laboratories, workshops and usable infrastructures. Where these exist, they are grossly inadequate, obsolete and in a dilapidated state.

Irrelevant and Outdated Curriculum: - The curricular of vocational agricultural education need to reflect the current challenges in agricultural occupations. It needs to be innovative in nature to tally with practical skills for production expected of the graduates from the area of crops and animals for human consumption. Ogba (2014) noted that vocational agricultural education needs to inculcate in the learner the basic scientific knowledge, technical skills innovation in tractor driving, planting crops, harvesting, processing, preservation, storage, market distribution, and fishing and other related aquaculture or livestock. Since the products of this programme will be for the future and present farmers in the society, the knowledge acquired in the programme need to be holistic and comprehensive enough to accommodate the provision for massive agricultural production in Nigeria.

Conclusion

Empowerment of human capital is a pre-requisite for the successful implementation of our development programmes towards social and economic transformation. The conceptional understanding and importance of education in relation to human investment in skill production, reveals the need for vocational agricultural education to inculcate, impact and deliver the needed work skills, and technical knowledge which it supposed to educate the students in order to be employed and become an employer of labour. The traditional training systems used to produce public servants for government jobs are outdated and do not fit the current end-users' needs which are gradually shifting towards problem solving skills, private sector orientation and market-driven systems. Therefore combining principles and good practices of informal and formal education with practical approaches to teaching and learning will not only make agricultural education interesting for the learners but also equips them with work skills that are important for their future.

Recommendations

Based on what has been discussed, the following recommendations are made:

1. Agricultural education curricular should be revised in a way that the teaching approaches should focus on learners. These approaches call for teachers to move from being a font of all wisdom to a facilitator who encourages learners to explore and innovatively interact with the vast knowledge available in their community.
2. Implementation of mentoring and livelihood approaches requires assistance from host institution which indirectly should come from the government and directly from NGOs.

3. There should be allowances for agricultural students who always perform credibly by producing reasonable quantity and quality produce from their programme farm of this vision.
4. Extra-curricular programmes in agricultural education such as Young Farmers Club (YFC), the Junior Farmer Field School (JFFS) should be revived as a way to ensure that every learner has the opportunity to gain work skills at any point of their studies.

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