



REVIEW ARTICLE

CURRICULUM INNOVATION IN TECHNOLOGY EDUCATION: THE NEED FOR PROPER  
WORKFORCE PLACEMENT

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ABSTRACT

Curriculum innovation is a welcome idea. This is most acceptable since the society which the curriculum content is made to serve is dynamic in nature. The issue of implementing the new ideas brought into the curriculum content is now the bone of contention. The ability of the curriculum implementers to adapt to changes easily will be of help towards achieving this new idea. Teaching and technical personnel are in the forefront in achieving the curriculum objectives. The paper therefore looks at the way the working personnel can be placed in job positions in technology education. It holds the view that when workers are placed appropriately they will be more productive. The paper also suggests refreshed training for the servicing workers at regular intervals. This will help keep them in tune with new innovations.

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INTRODUCTION

Every business is set up with certain objectives or goals to be achieved. The education industry is set up to give people the knowledge and skills for their survival and benefit to the society. In order to realize these goals, certain resources should be properly harnessed. The set objectives in education are to be achieved using human and material resources. The material resources to be used are dependent to a large extent, on the specifications of the curriculum content of the core subject concerned. Curriculum as we know is the log upon which educational activities revolve. This is followed by the implementation process. The teacher is foremost in the implementation of curriculum. The fact that curriculum content is not static depicts the need for the implementers to be dynamic in their knowledge and skills. It is only when this is done that the expected outcome will be achieved. Education is supposed to train all levels of manpower that would in turn produce goods and services for societal needs. The technology education should aim at developing the primary traits of its users. This can only be possible when the curriculum content is developed in that line. Priority should be given to the teaching of skills, thus braking away from the colonial system of education. It is necessary to recall that the skills, knowledge, and procedures involved in local craft, and vocational industries are not covered in the curriculum content.

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It becomes a burden on how these skills like winding and rewinding of electrical machines, carving, and ceramics works can be successfully taught. It is only the curriculum planners that can ensure that these skilled based areas are included in the curriculum. The human resource is represented with workforce in this paper, workforce is defined as the total number of workers in a specific undertaking. Employed or employable workforce in the implementation process of the curriculum in the school system include teachers, technical workers, and ancillary staff. Thus, the placement of the above personnel charged with the responsibility of defining the objectives in the curriculum, assigning of teachers, and ancillary workers to their respective activities, and when necessary carrying out evaluation activities?. The faction report on human resource management summarizes human resource function to include, responsibility to organize, directing staff, planning for work progress, setting standards to be attained, measuring results, reviewing procedures, and checking of activities and actions. Eneje (2010), held the view that, when workforce are maximally mobilized, it facilitates maximum educational output at a minimum cost. The workforce, since placed at the forefront in goal achievement, the placement of all cadres of staff in our schools should be done with care and dedication. Anada (2012), opined, that management should be very meticulous in recruiting teachers and instructors for the technology education programmes, and such people must be capable of carrying out these functions. Technology education being a skill oriented programme which is aimed at producing graduates who will possess saleable skill

needed for effective adaptation into the present society demands qualified and capable workforce at all levels to achieve these aims.

### **Problems and issues needing attention in implementing curriculum innovations**

There are certain conditions, which have contributed to the ineffectiveness in implementing the innovations, which arise from technology education curriculum. Ranking first is the issue of inappropriate personnel placement and its consequent wrong results in poor infrastructure material provision. Lack of proper knowledge on the part of personnel being used to carry out the changes in technology education curriculum. The persistent poor image of technology education before the society. Lack of incentives and rewards to the working personnel of technology education. There is the problem of lack of retraining programmes for staff development as well as refresher courses. Ali, (2014), maintained that, lack of training and retraining of personnel to develop their innate abilities and achieve their full potentials in their place of work will make the attainment of the set objectives a mirage. The poor language or lack of proper expression ability. These resulting in incorrect and poor expressions. The learners' family background is another factor. Some come from poor, rich, literate, illiterate families, some are brought up in the rural areas and others in the urban. The constant personnel turnover and workforce mobility witnessed in the education industry as a result of lack of qualifications and interest.

The fast globalization syndrome imposes a challenge on the education industry. The ever-changing society and its effect on the curriculum content and the school system. The poor work ethics shown by the personnel on the system. The ever changing curriculum content and its demanding adjustments. The personnel transfer style is always to the detriment of locally positioned schools. The inability of the workforce to adapt to changes easily.

### **Workforce Placement and New Curriculum Content**

Anada (2012), held the view that, the management of human resource is a difficult exercise. It is relatively difficult when it comes to placement, and good result can only come when the resource is put to proper use. The personnel to be used to implement the curriculum content should be properly placed for duty discharge based on their special areas of training and competencies. Those who acquired teaching knowledge and skill should be placed in teaching occupation. The technical as well as ancillary workers should be placed in proper positions for adequate productivities and maximum outputs. Though, there are few schools with the needed infrastructural materials, the few available ones are often not well managed because most personnel do not appreciate them, and sometimes may not know how to operate them for good results. Anada (2012), continued that, some of the technically trained teachers lack the necessary skills to operate the teaching machines. Such teachers, lack the competencies and cannot exhibit the associated acquired skills. In such situations, in-service training and encouragement by higher and experienced officers are needed. Technology education, as the name implies is a programme with special demand and practices. The field of studies mapped out varies from unit to unit as the field of knowledge. Examples are Electrical Installation and Maintenance Works, Mechanical Technology, Refrigeration

and Air-conditioning, Building Trades, Foundry, Automobile and so many others. The personnel to be kept in charge of each area should be knowledgeable enough and capable, both teaching staff, technical and ancillary workers. The way the public perceive technical education shows the dire need to place competent personnel who will help to give the students the right perception and as well extend it to the general public, what actually technological education involves. The motivation expected by the workers in the form of incentives and allowances are not often provided. Since lack of such can hamper proper foundation of the workers, it will be best to place workers in their very best qualified positions. As a result of the attachment and interests in the job position will help to make the workers ignore those short falls, and continue with their works with interest and endeavour to give maximum output.

The technological education programme always has changes in curriculum content. The working personnel should continue to be productive alongside these development need further empowerment in the form of training or refresher courses. Unfortunately, there is always non-availability of these training facilities. Efforts should be channeled towards provision of these facilities for the training of workers. Isak (2013), opined that, there is high demand for qualified and experienced professionals to teach technology education, but, majority of them prefer to go to industries where the pastures are greener. He emphasized that teaching appears to be the awaiting pool from where people get to other employments. Constant personnel turnover and mobility to entire work force is an issue to be addressed. The working personnel especially the teaching and technical workers cadre always leave when offered other engagements. Thus leaving the teaching field with confusion and constant struggle to cover up such vacancies thereby jeopardizing smooth running of the programmes.

The present globalization trend, which is being reflected directly or indirectly in the technological education curriculum content demands that the teaching personnel and the technical workers be knowledgeable in their content. It is only when they are knowledgeable that they can impart it to others. The curriculum content is flexible and changes alongside the society. This is clear since the products of curriculum content are to serve the society. The working personnel should also be used for the societies needs, as this will help them in implementing the desired curriculum content. The implementers of these programmes should be trained in line with these changes. It is only when this is done that they will teach in such required new dimensions.

To further improve on the implementation of the new curriculum content, the issue of staff transfer and exit of some capable hands from the school system should be discussed. Capable workforce often leave the school for positions in ministries and industries. This they do in order to get better pay. And the result of such drift is the filling of the school system with less competent work force, which calls for immediate replacement to meet the challenges of the new curriculum contents. Nwodo, (2015), emphasized that, the growth of technology education is hindered because of acute shortage of suitably trained and qualified teachers. He further said that as a result of inadequate qualified teachers, it is not uncommon these days to find sociologists, economists and even political scientists teach courses in technology education.

Most of the working personnel because they are not professionals do not understand the ethics of the teaching job. In line with this lack of knowledge they cannot respect the ethics in the course of discharging their duties. People with deep understanding and respect regarding the ethics should be made to take up these job positions. When actually the ethics is respected and imbibed into others, the curriculum content should be better implemented through proper teaching. Instructional resources needed for effective teaching are not always available. Where this is the case, the teachers and instructors should be ready to improvise. Capable workforce that has the ability to adapt to changes without much difficulties and complications should be provided to carry on the teaching and instructing jobs. This ability when possessed by workers will make it easier for the expected results to be achieved. Anoda (2012), held the view that, the operating and putting to use, teaching materials to produce the desired result is very important. Thus, the workforces' abilities, capabilities, and dedicatedness are very important.

Other variables that can help in appropriating implementation of innovations in curriculum include sensitizing the learners. The teacher who succeeds in sensitizing the learners to accept changes can be considered successful in teaching. The implementers of innovations should take cognition of these facts and its implications in learning. The use of local materials while teaching should be preferred to foreign materials. Real objects should be used where it can be seen. If not available, improvisations should be made. The learners should be encouraged to provide their own materials. By so doing, the learners' creativities will as well be promoted. This process eventually leads them to self-discovery.

### Conclusion

The implementation process of any new curriculum content is something worth giving attention. The implementation process involves the use of capable workforce. The workforce includes teaching, technical, and other qualified individuals. Technology education curriculum changes with the society's demand and needs. The engagement of qualified personnel in technology instruction make it easy for the instructional materials to be properly controlled, cared for, and maintained.

Technology education being skill and technically oriented, needs competent qualified personnel to handle it. Using the right qualified personnel to implement the innovations in our new curriculum contents will give a good result. There should be fair and acceptable methods of recruiting the work force needed to implement the technology education programmes. The government should give in-service training and other developmental courses to the serving personnel. Motivation should be given in form of incentives, allowances and bonuses to the workforce. Seminars and refresher programmes should be organized for the work force to keep them in line with the new trends. Efforts and strategies should be mapped out on how to prevent the drift of qualified and capable manpower from the technology education systems.

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