

CURRICULUM ISSUES AND CURRENT TRENDS IN WOOD WORK TECHNOLOGY

¹SHIITU, B. K, ²ADAMU, A.A, ³OKWORI, R. O, ⁴HASSAN, M.A & ⁵MOHAMMED, B. M.

¹Department of Woodwork Technology Education
Federal College of Education (Technical), Gusau, Nigeria

²Department of Woodwork Technology Education
Niger State College of Education, Minna, Nigeria

^{3,4&5}Department of Industrial Technology Education
Federal University of Technology, Minna.

Abstract

Curriculum as a group of courses or planned experiences in a proper sequence of topics is designed and prepared for the individual, or group of learners for efficient, effective and skillful service in a specific vocation. Therefore, it should be flexible and simple for Interpretation so as to achieve the target goal. The paper highlighted on curriculum review as a form of educational reform, issues in planning, development and implementation of curriculum, curriculum innovation and creativity in woodwork technology and current trends in woodwork technology. The concepts of woodwork technology, curriculum, and curriculum issues in woodwork technology were judiciously discussed. The paper revealed among others that, inadequate number and types of machines both stationary machines and the portable power tools necessary for teaching and learning; the large number of students offering courses related to machine woodworking; and inadequate trained woodwork technology teachers dedicated to the programme are some of the issues confronting the design of appropriate curriculum for woodwork technology. The paper recommends that, the National Board for Technical Education (NBTE) should address the curriculum challenges noted in woodwork technology curriculum by the inclusion of current trends in woodwork technology; and Teachers of woodwork technology should embrace the current trends in teaching so as to acquaint students with innovations in woodwork technology.

Keywords: Woodwork technology, curriculum issues and current trends.

Introduction

Woodwork Technology is seen as the activity or skill of making objects from wood by woodwork craftsmen. Woodwork Technology has areas of specialization and these include carpentry, joinery, cabinet making and wood machining (Hornby, 2000). In the same vein, FRN (2013) identified areas of woodwork as follows: Upholstery, carpentry and Joinery, wood machines and furniture making. Woodwork technology is one of the vocational subjects studied in technical colleges in Nigeria. The goal of Woodwork technology in technical colleges according to National Board for Technical Education (NBTE, 2006) is to produce skilled craftsmen for self or paid employment in the world of work. The skill areas for employment in woodwork include: machine Operations, Furniture Making, Upholstery Design and Construction, Carpentry and Joinery. All these areas of woodwork technology are changing rapidly and as such demand that practitioners should have flexible skills and be able to easily adapt to changes. Like every other practical oriented disciplines, Woodwork also has saleable skills and business opportunities that abound in the trades. It emphasizes learning by doing through cognitive and psychomotor skills (Omeye, 2013). It is one of the major trade components of the curriculum of Technical and vocational Education.

Curriculum is the offering of socially valued knowledge, skills and attitudes that may be available to students through a variety of arrangements during the time they are at school, college or university. Ibrahim (2011) defined curriculum as a group of courses or planned experiences in proper sequence of topics designed to prepare an individual for efficient service in a specific vocation. This, therefore, suggests that the curriculum for a programme should be adequately planned to enable the achievement of the stated objectives. Ibrahim (2011) looked at curriculum as the planned and guided learning experiences and intended outcomes formulated through systematic reconstruction of knowledge and experiences under the auspices of the school for the lecturers continuous and willful growth in personal social competence.

It is the process and content designed to effect learning of educational values. Ben-Yunusa (2000) maintained that, the curriculum of a subject should be determined by the most fundamental understanding of what could be achieved and the underlying principles that give structure to be the subject. Ben - Yunusa (2000) equally looked at curriculum as the set or sequence of potential experiences set up in the school for the purpose of disciplining children and youth in group ways of thinking and acting. This implies that curriculum is the programme of activities designed for pupils to attain by learning certain specific ends or objectives

Curriculum Review as a form of Educational Reform

Curriculum is central to education at all levels in the world. It is the director, indicator, the light and instrument for possible education. Alade (2016) defined curriculum as a programme of education prepared for definite group of learners within a time frame in order to achieve the intended behavioural outcome. Okundaye (2014) described curriculum as the engine that propels educational achievement for both the individual and the society what they hold up as prize. Curriculum is the medium through which educational institutions seek to translate the societal values into concrete reality. Through it, educational institutions actualize what the society considers as desirable learning.

Curriculum straddles all societies from the literate, pre-literate to the illiterate. It is the heartthrob of development and progress. By and large, in a passage of time, some communities and ethnic groups know certainly that skills and occupations grew in them on a broader perspective. The informal curriculum in the indigenous society emphasize the development of occupational skills needed as preparation for work in the training given to people (Ivowi, 2013). The productive and competent ability manifested in the recipients and skills became the identity for productivity and employment security. It was the form of education Nigerians knew before the arrival of the colonial missionaries and was geared towards skills acquisition with a view to fighting unemployment, and enhancing the economic well-being of the recipients.

Issues in Curriculum Development

Issues are mostly related to difficult decisions and disagreements that most a time causes debate. If there are divergent opinions on the inadequacy and the planners inability to answer many critical questions underlying the curriculum it becomes an issue. Naeem(2013) believed that, problems and issues are similar because both problems and issues cause debate, concern, and conflict. He further opined that 'Problems can be solved by asking how can something be solved and if the problem cannot be answered easily and people are divided over the problem then it becomes an issue'.

Curriculum development is a continuous process that requires proper planning, a well-planned set of activities, choosing learning experiences and evaluation procedures among others. In woodwork Technology Education, there are a lot of issues ranging from inadequate funding;

obsolescence of training facilities and equipment, lack of integration of the curriculum to what is obtainable in the labour market and lack of proper investigation of the nature of individuals for which curriculum are meant. In essence, it is apparent to note that the basis upon which woodwork technology curriculum is to be planned must cover economic, social, psychological and philosophical aspect of the society.

Issues in Curriculum Planning and Implementation

Nigeria as a developing nation requires a morerobustcurriculum that will enable her to actualize her dream to become one of the world's biggest economies. It is important to note that many countries have gradually moved away from traditional subject-based curriculum to learner-centred curriculum.

In Rwanda for example, there was a major curriculum reform in their educational sector. There was a paradigm shift from knowledge-based curriculum to competency-based curriculum. Ernest and Helen (2016) reported that, in Rwanda, an important shift was made from a knowledge-based curriculum to a competence-based curriculum and from knowledge and skills acquisition to knowledge creation and application. They further pointed out that the aim is to develop students' independent, lifelong learning habits; appropriate skills and knowledge; and applications to real life situations.

In line with the above discussion, there is the need for our country to stop relying on east or west to define us rather we should define what works for our country today, tomorrow and even 100 years to come. Nigeria as a nation should move away from primitive way of teaching to what is obtainable in the present day.

In curriculum planning, if you want a child to become world class furniture maker, car manufacturer, software developer, computer manufacturer etc, you need to start building that right from elementary school and secondary school.

The huge reform that Nigeria needs is to embark on moving away from traditional subject/content-based curriculum to learner-centred curriculum. Basically, there are three forms of curriculum: Subject-based curriculum, Learner-based curriculum and Problem solving-based curriculum. Therefore, it is of utmost importance for anywoodwork technology curriculum to focus on what learners need for them to function effectively in the labour market after graduation. Most of the countries that perform very well have a curriculum that is learner-based. In China for example, their students are being engaged in practicing how to create equipment and gadgets.

Curriculum innovation and creativity in woodwork technology

Curriculum innovation in woodwork is more of content-driven and examination-centred rather than practically based activities (nature of the trade). Teachers' efforts are geared towards covering the content of the curriculum within approved timeframe of the school calendar. Both the teachers/instructors and the learners work towards ensuring that the examination syllabi are covered. The implication is that there are strands of evidence of deficiency in the creativity, competence and innovation in the learner (Huang, 2013). The Nigerian woodwork students are faced with the challenge in the use of modern equipment/machinery (digital based), in the industry and the workplace of the twenty-first century that requires manipulative skills and a much great ability to solve problems on their own than it has been in the past (All, 2013).

furniture can make or break a space. Choosing the right upholstery—either custom-made or whatever can make your home look unique and beautiful.

Current Trends in Cabinet Making

Cabinet making is one of the components of woodwork technology that has new design trends. Monique and Lucia (2019) featured some of their 'go-to designers' 2019 kitchen designs that reigned supreme which include: never concealed storage cabinet, pewter and gunmetal hardware, open shelving, vintage vibe, colored upholstery, use of wood cabinet, colored cabinetry, contrasting textures, raw materials cabinetry, integrated appliances cabinetry, pendant light fixtures, hunter green kitchen garners, tall backsplashes clad, lather and wood drawer pulls among others. Open kitchen shelves and wall cabinetry have undergone radical changes than at any time in the past. But with good organization and the right kind of shelves, well designed and constructed they can create a unique style for your kitchen. Bryan (2019) Opined that 'open shelving has plenty of benefits. It introduces a light and airy feel offering the illusion of more space which is especially great in smaller kitchens. It is also efficient, since you can see and grab what you need without taking the time to open cabinet doors to look inside'. He further highlighted that there are nine hottest trends that will dominate cabinetry in 2018 which include: Open shelving, color customization, increased use of oak wood, transitional styling, clean aesthetics, and multiple finish color in one kitchen, move over double bowl sinks, storage solution for smart tech, and under cabinet lighting.

Current Trends in Roofing

Roofing refers to the top covering of a building. There are several materials used for roofing surfaces such as wood, metal, solar shingle among others that provides human comfort. Eagle watch (2019) came up with top four (4) roofing trends of 2019 which include solar roofs, cool roofs, metal roofs and designer roofs. The solar roofs will eventually work by integrating panels into traditional-looking roofing materials while the cool roofs were designed to minimize the amount of heat transferred to building by reflecting some of the heat radiated by the sun. The metal roofing is becoming popular and strong, durable, withstands fires, winds, rain and snow. One of the major advantages of metal roofing is its reflective properties, it doesn't absorb heat and it also gives strong protection, low maintenance, that's why metal roofing becomes a global trend. Lastly, the designer roofs became the most recent trend in roofing industries because of its properties to withstand hurricane force winds and resistance to fire. Green or living roofs are other trends in roofing industries. Chris (2019) noted that these roofing systems have multiple layers such as engineered soil, protective fabric, and waterproof membrane and have a beneficial influence on the environment by creating a natural habitat and reducing acid rains.

Current Trends in Technology Education

The last few years have witnessed a dramatic change in the learning model. The way students are being taught today is very different from the teaching methods that were adopted a few decades back. Technology has brought about various changes in the way education is delivered and received. From subject/content-based to competency-based approach, we have seen technology make a considerable impact on the learning and teaching methodologies. With numerous benefits to offer, digital learning has become an important part of the education system. Schools and universities are trying to implement the latest in education technology in order to improve the teaching and learning process. The following are some of the current trend in technology education: Collaborative Learning, Learning outside the Classroom Environment, Social Media in Learning, Interactivity in Classroom, Data Management & Analytics, Immersive Learning with augmented reality and virtual reality (AR and VR), Gamification in Education, Online Data and Cyber security among others.

Curriculum Issues in Woodwork Technology and the way forward

Most technical institutions in Nigeria are not sufficiently equipped with trained personnel and modern woodwork materials. Ibeneme (2007) stated that the underfunding of technical institutions affects the supply of up to date facilities and equipment needed to train workers of the 21st century. He further stated that there are few trained technical teachers dedicated to the programme. Vocational training has been an integral part of national development strategies in many societies because of the impact on human resource development, productivity and economic growth (Dike, 2007). A good workman must possess the right skill in woodwork for optimal productivity and creativity. He further opined that there are two problems confronting woodwork curriculum in vocational institutions in Nigeria. These problems are those of inadequate number and types of machines; both stationary machines and the portable power tools necessary for teaching and learning and the large number of students offering courses related to machine woodworking. The graduates are looked upon as unemployable, because they lack skills required for good quality performance in industries. Also they could not create jobs for themselves due to lack of skills (Abassah, 2014). This has been traced to poor practical and workshop activities that are not properly implemented. The challenge is to meet the current as well as the future needs of the country. These could be overcome by having a well-planned curriculum reform that will give much emphasis on learners, that is, learner-centered not subject/content-based curriculum.

Conclusion

Functional woodwork technology education requires the manipulation of machines, hand and portable power tools to acquire therequisite skills necessary to function in the labour market after graduation. It was concluded that, there are curriculum issues in planning, development and implementation of woodwork curriculum that call for urgent review of the curriculum to tally with what is obtainable in the present global trend. It also concluded that there are current trends in woodwork technology, cabinet making, upholstery, roofing, as well as current trends in technology education that requires collaborative learning, learning outside the classroom environment, use of social media, immersive learning with augmented and virtual realities among others that requires the teachers of woodwork technology to embrace the current trends so as to equip students with necessary skills that will enable them meet up with modern trends in woodwork technology.

Recommendations

Based on the available literatures reviewed, the study made the following recommendations:

1. The National Board for Technical Education (NBTE) should address the curriculum challenges noted in woodwork technology curriculum by the inclusion of currents trends in woodwork technology.
2. Teachers of woodwork technology should embrace the current trends in teaching so as to acquaint students with innovations in woodwork technology.

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