

Towards Qualitative Teaching of Vocational Subjects in Secondary Schools in Nigeria

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Abstract

The teaching of vocational subjects in secondary schools has become paramount to achieving the entrepreneurship goals and realizing the objectives of the functional educational system. This paper examined the need for ensuring qualitative teaching of vocational subjects in secondary school, with great emphasis on methodological procedure of development of learning content. Various vocational subjects that were purported to be taught in schools as stated in the NPE (2004, 2008) were highlighted. Problems and prospects of teaching vocational subjects were identified and the various useful methods for teaching vocational subjects were explained. Recommendations on possible strategies to ensuring qualitative teaching of vocational subjects in secondary schools were suggested.

Introduction

Vocational Education is that aspect of education that exposes the learner to acquire demonstrable skills that could be transformed into economic benefits. It is any form of knowledge acquisition whose primary purpose is to prepare persons for employment in recognized occupations. Vocational education encompasses all practical and skillful knowledge, which an individual/society requires to enable her triumph over economic backwardness (Awanbor, 2005).

Vocational education therefore, is to provide skills, knowledge and attitude necessary for effective employment in specific occupations. This form of education is organized for the purpose of updating, refreshing, renewing and refurbishing the skills and knowledge of skilled workers in industry, business or commerce in order to retrain in entirely new occupations in which they are better adapted technologically and psychologically.

Secondary education as spelt out in the National policy on Education (2004) Section 5 sub-section 20-22 is the education children receive after primary education and before the tertiary stage. The broad goals of secondary education are to prepare the individual for:

- (a) Useful living within the society; and
- (b) Higher education

And in specific terms, secondary education shall:

- (a) Provide all primary school leavers with the opportunity for education of a higher level, irrespective of sex, social status, religious or ethnic background;
- (b) Offer diversified curriculum to cater for the differences in talents, opportunities and future roles;
- (c) Provide trained manpower in the applied science technology and commerce at sub-professional grades;
- (d) Develop and promote Nigeria languages, art and culture in the context of world's cultural heritage;
- (e) Inspire students with a desire for self-improvement and achievement of excellence;
- (f) Foster national unity with an emphasis on the common ties that unite us in our diversity;
- (g) Raise a generation of people who can think for themselves, respect the views and feelings of others respect the dignity of labour, appreciate societal values and live as good citizens.
- (h) Provide technical and vocational skills necessary for agricultural, industrial, commercial and economic development.

Vocational Subjects in Secondary Schools

Secondary education is a six-year duration given in two stages: a junior secondary school stage and a senior secondary stage; each is three years duration.

The junior secondary school is pre-vocational and academic. According to NPE (2004) it is meant to be tuition free, universal and compulsory. The pre-vocational elective subjects include:

- (a) Agriculture
- (b) Business studies
- (c) Home economics
- (d) Local crafts
- (e) Computer education
- (f) Fine arts
- (g) Music

While the senior secondary school is comprehensive with a core-curriculum design, every student is to take a minimum of one and a maximum of two from the list of vocational subjects' electives which includes:

- (1) Agriculture
- (2) Applied Electricity
- (3) Auto-mechanics
- (4) Book-keeping and Accounting
- (5) Building Construction
- (6) Commerce
- (7) Computer Education
- (8) Electronics
- (9) Clothing and Textiles
- (10) Food and Nutrition
- (11) Home Management
- (12) Metal Work
- (13) Technical Drawing
- (14) Woodwork
- (15) Shorthand
- (16) Typewriting
- (17) Fine Art
- (18) Music

Problems of Teaching Vocational Subjects in Secondary School

Although, vocational subjects as listed above have been specified as elective subjects by the policy, which means that, in some secondary schools, there could be cases of students not selecting some of the subjects during senior secondary school certificate examinations (SSCE or NECO). However, the present conditions of vocational education programmes at the secondary schools have not been sufficiently articulated to encourage acquisition of the related skills (Mbah, 2006)

The under listed problems are still hindrances to achieving the objectives:

1. Inadequate facilities and suitable structures in schools and other centers provided for the teaching of vocational subjects.
2. Lack of trained manpower to teach vocational subject at these level
3. Inadequate practice of the curriculum provided for vocational education subjects.
4. Shortage of personnel to match the teaming population of secondary school students.
5. Lowered moral of vocational subject teachers as a result of endpoint placement cadre.
6. Societal perception of vocational subjects in a society of academic proliferation and white-collar job dichotomy.
7. Lack of re-structuring and enhancement of teaching skills for teachers and techniques for teaching vocation subjects.

Vocational subjects are practical oriented, therefore would need adequate preparation in terms of structures to accommodate equipment and tools for practice. Most secondary schools do not have laboratories designed for these subjects (Olatunji, 2004). In most cases, where classrooms are converted, the needed tools or equipment would not be provided. The subjects end up being taught as other circular subjects without demonstrable skills.

Similarly, some secondary schools do not have trained teachers in specific vocational subject area, and other teachers with fair knowledge or no knowledge at all is coerced to teach related or combine her vocational subject area with another e.g. a Home Economics teacher being asked to teach agricultural science or vice versa.

Osifeso,(2004) observed that, most vocational subject teachers are classified as those with little or no academic proficiency other than apprenticeship in vocational skills, who cannot read or write but can only do things with their hands. She noted that these classifications brings in lowered morals amongst the teachers who in turn would look for a way of diverting to areas they feel have higher acceptance level in terms of academic prestige. By so doing, dwindling in vocational training and retraining proficiency would set in which eventually would affect the availability of vocationally trained personnel or manpower.

In addition, Olatunji (2004) observed that the endpoint cadre placement of graduates from technology universities and colleges if not reconsidered by the government would continue to dwindle the growth of vocational education in the country. This is simply adduced to the fact that money has been classified as an icon of superiority in a social environment, therefore if among two graduates, one spends a larger duration in training and receives lesser salary and placed lower in cadre to her contemporary, the simple explanation is that she is less superior to the other. This issue is critical and must be seriously addressed.

Finally it is generally noted that the provision of learning aids, vocational tools and equipment still remain a major problem in teaching of vocational subjects in secondary schools. The government and all stakeholders must be apt to responding to the needs for adequate implementation of vocational programmes (Awanbor, 2005)

Prospects

The wind of change in vocational proficiency should be made to equate the placement cadre. There is a great need to abolish certificate discrimination so as to motivate and reinforce vocational integrity among the vocational subject aspirants.

The reform agenda in education by Ezekweili (2006) seems to be addressing this issue critically. The intended transformation of two polytechnics (Yaba College of Technology and Kaduna polytechnic) into universities raised a new hope for vocational and technology education in Nigeria. This effort was jeopardized and never materialized due to socio-political debate. However, there is hope, that there is a lot of prospects for vocational subject teachers, as several variables are being introduced into vocational teaching such as vocational guidance, gender issues, poverty alleviation, population education and information communication technology.

Emphasis is not only on the traditional vocational skill as it is being referred to in the primitive age but we are now in the technological advanced era where emphasis lies on what you do with your hands to earn a living using modern technical tools and equipment.

Various Techniques of Teaching Vocational Subjects

There are several techniques, which secondary school teachers can employ in teaching vocations subjects Odumosu (2004) highlighted the following:

1. Demonstration
2. Project method
3. Discovery method
4. Discussion
5. Assignment method
6. Field trip

Demonstration method

This method involves the presentation of procedures and processes to be learned. Demonstration is a means of simplifying high standard for the process being presented. It creates a high degree of attention, concentration and exploits the students' interest. The skills acquired through demonstration enables the learner to develop poise and the ability to talk

and act at the same time. Demonstration provides a concrete and realistic visual picture of what is being presented to supplement word images and usually results in a more lasting impression. It conserves time and can be used with small or large groups of any age under controlled conditions.

However, demonstration requires careful planning, detailed preparation, and consideration to make it effective. Without proper direction and guidance, students may concentrate upon the teaching aids and ignore the lesson itself. Demonstration may involve the use of expensive materials that may not be easily obtained or managed.

Procedure for use of demonstration

- A theme is selected and the content of demonstration defined
- Basic objectives are stated
- Adequate and appropriate equipment and materials are provided
- The key points to be demonstrated are outlined
- Ensure that the above listed procedure is orderly arranged

Starting the Lesson (Introduction)

- The purpose and expected outcomes of the lesson is explained to the students
- Seats are arranged to ensure a clear view by all students e.g. teacher, student.
- All distractions re-removed

Presentation

- Demonstration should be simple and brief
- All materials and equipment must be functioning and arranged in proper order of presentation
- Demonstration can be supported with instructional materials like pictures and charts to aid students' comprehension
- Evaluation at every stage of the demonstration is necessary to ensure clear understanding

When can demonstration be best used?

- The demonstration method is good for both small and large groups
- For both indoor and outdoor instructions
- For vocational, technical and science subjects
- For skills that might be too ambiguous for students to learn
- For easy understanding of contents and instructions

Project method

The project method involves getting students to imbibe practical knowledge and sense of cooperation among them. The teachers' task in project is to guide the students. He encourages them by showing a lively interest in their work, and assisting the value of the project by the quality of learning shown in the project.

The project method makes learning real by presenting a real task for the students to tackle. It puts responsibility on the students and gives scope for their initiatives. It makes learning a social interaction because it is a combined effort, each student contributing his energy and skill to the work of the group so that final object of the project can be attained.

Procedure for use

- A particular project or item is selected
- The objectives stated
- All materials needed are provided
- Schedule of work is appointed
- The outline of the project listed

The objective of the project is clearly explained to the students by the teacher. For example making seams the objective may include:

1. To identify the type of seams?
2. Identify stages in making seams etc.

Presentation

- Materials for making seams are clearly arranged
- Stages e.g. stage 1-4 are outlined
- Students with guidance are instructed on the different stages
- Evaluation of completed project is done by the teacher

When Can Project Be Used

The method is used for individuals, small and large group instruction. It is quite suitable for vocational skills as students are encouraged to participate in project making to ascertain their understanding of concepts

Discovery method

Discovery method is described as the keynotes of modern education. It involves the teacher making a list of activities in his note of lesson of what students should learn.

Students learn best by doing and find interest and enjoyment in participation. Discovery method is quite logical in the teaching of vocational skills because it helps the students through instructional activity to discover and acquire the skill without much guidance. Although teaching by discovery is not an easy task. It requires longer time for the students to form a generalization of their own than it is for them to learn one that is presented to them prescriptively. This means that the teacher must work harder to teach a successful discovery lesson (Odumosu 2004).

A discovery activity is a lesson designed in such a way that a student, through his own mental processes discovers concepts and principles. For student to make discoveries he has to perform certain mental processes such as observing classifying, measuring, predicting, describing, informing, etc. for example a students may discover what a seam is, from the concepts of garment making or stitches. Also a student may discover what a nutrient is from a concept of food group or later may discover a scientific principle that nutrients only come from food (Mbah, 2006).

Procedure for Effective Discovery Lesson

- All the discovery lessons should be activity-based.
- Summary of activities should be done through a sequence of questions drawn.
- The entire class can be grouped into smaller groups.
- Unit of lessons should be broken down into series of questions prepared in a card.
- The question should be based on the various contents of the lessons.
- Each lesson must have a time frame e.g. most Home Economics lessons usually last 80 minutes.
- In discovery, this 80 minutes should be broken down as thus:
 1. The first 10 minutes should be used for the revision of the previous lesson.
 2. The next 5 minutes should be used to explain the objectives of the day's lesson and what then students are to do for day.
 3. Then 40 minutes to be used by the students to work with the activity cards in their various groups and summarize their findings.
 4. The next 15 minutes should be used to merge the group, compare their findings, which will be reported by the group leaders. These findings will be discussed by the members of the various groups and critiqued.
 5. The last 10 minutes will be used by the teacher to summarize the findings of the entire class in line with the development of the content of the lesson.

For example: "MAKING SEAMS". The main idea is for the students to make simple seams (open and flat seams). The objective of the lesson includes:

1. Identify seam.
2. State the various types of seam.
3. State the procedure involved in making seams.

Supposing, there are 70 students in the class of JSSII, and they are divided into 7 groups of 10 students each, the procedure for discovery lesson will involve providing specimens of seams in album or booklet for students to observe and discuss, than a flash card or activity cards containing the under listed questions should be issued to the students:

1. Identify the seams you have seen by describing them.
2. Identify the quality of the seam (near finished or poorly finished)
3. Advance reason for your response in (2) above.
4. Identify the stages of making seams.

Following the above analysis and discussions in the group, collect calico, cardboard sheets, scissors, needle and thread and produce your seams and name them accordingly.

Each members of the group should assess their work and make comments.

Merge the entire group and let them asses and critique the quality of seams produced by other groups.

The teacher should summarize the procedure for well-finished seams and appraise the ones made by the students.

Similarly, other techniques have their procedure, more circular than the ones discussed in detail above. The most important factor in teaching vocational subjects is to ensure that the intended skills are learnt at the end of each instructional process.

Conclusion

Qualitative teaching of vocational subjects in schools is very paramount to achieving the entrepreneurship goals which is the current trend in the national economy. Self-reliance can only be achieved through adequate acquisition of appropriate skills. This therefore concludes that qualitative teaching of vocational subjects should be given a boost by partners concerned.

Recommendation

In response to the problems highlighted in this paper, the following recommendations are suggested:

- The training of graduate teachers in vocational areas should be financially assisted by the government through provision of teaming aids to facilitate practice.
- There should be rehabilitation and finishing of existing laboratories in schools, colleges and universities to enhance practical experience.
- Field trips and excursions should be encouraged and funded by the government via the schools to encourage and enhance practical skills.
- Trainers of vocational teachers should be encouraged to have a retraining for updating of competency level.

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