

READINGS IN VOCATIONAL EDUCATION

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LIBRARY RESOURCES FOR EFFECTIVE TEACHING OF INTRODUCTORY TECHNOLOGY: IMPLICATION FOR VOCATIONAL EDUCATION

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ABSTRACT

The purpose of this study was to determine the problems faced in the teaching of introductory technology in Secondary Schools in Akwa Ibom State. The study answered three research questions. The population consisted of 300 respondents. A structured questionnaire was used for data collection. Mean and percentages were used in the data analysis. The findings revealed among other things, deplorable library resources as affecting the effective teaching of introductory technology in Akwa Ibom State.

INTRODUCTION

Introductory technology is the solid foundation for technical and vocational education. It is defined as a pre-vocational subject which includes woodwork, metal work, electrical, electronics, mechanical, automobile, plumbing, welding, carpentry, building and computer training (Ozoro, 1973). Technical education on the other hand is defined as a course of study that provides training and imparts skills leading to the production of technicians.

Technical and vocational education had failed to receive sufficient attention before the 1991-1995 plan of action. Fafunwa (1974), writing on the serious omission in the Nigerian educational system, gave a number of reasons why technical and vocational education had not received due attention:

“....technical and vocational education was thought of belonging to people who were not intelligent enough to do academic work, and the practical result of that type of thinking was that technical workers were paid poorer wages than clerks...”

This paper therefore attempts to discuss the problem faced in the development of introductory technology in Akwa Ibom State: assess students attitude towards introductory technology; and assess the availability of library resources for introductory technology and determine the relationship between the availability of library resources and effective teaching of introductory technology.

Critics of the Nigerian educational system have hammered on the danger association with the scarcity of vocational training centres, and technical colleges (Okoro, 1993, and Osuala, 1995). This led to the introduction of introductory technology into the curriculum of the Junior Secondary School (JSS) under the 6-3-3-4 system of education from September 1982. The overall aim was to exploit the existing scientific and technical knowledge for development. But there are problems of introducing introductory technology in schools in Akwa Ibom State.

The new subject, introductory technology has a problem of acceptance by the school children. The importance of the subject as a gate that opens the way for self-reliance and self actualization is still not easily appreciated. The implication is that students take it casually as one of those subjects to pass examinations. Okorie (1988) observed that the perception of students on introductory technology is strongly influenced by attitudes. Most students have a negative attitude. Parents rarely arrange extra coaching classes for their children in introductory technology as they do in other subjects. Osuala (1995) put forward that the educational opportunities of Nigerian children are clearly related to the socio-economic status of the parents. Highly placed parents discourage their children from emphasis on introductory technology. This leads to a negative attitude of students towards technology education and its regrettable neglect as a means of establishing the dignity of labour.

There is also the problem in the teaching of introductory technology in Akwa Ibom State Secondary Schools such as lack of workshops, laboratories and equipments. Sometimes where there are equipments. Sometimes where there are equipments, there is no electricity, materials and manuals to operate them. Technology equipments were supplied to institutions in Akwa Ibom State as at December 1987. But lack of accommodation for these equipments rendered them unserviceable. He reported that millions of Naira worth of equipment bought for introductory technology was still lying uninstalled. Principals of schools affected mentioned amongst other things, lack of electricity, water and workshops for proper teaching of introductory technology.

In addition technical personnel and teachers constitute an important factor in achieving the aims, goals and objectives of introductory technology. Fafunwa (1994) argued that the equality of students produced in institutions is a direct reflection of the calibre of teachers. Factors responsible for lack of technical teachers include the drifting away of the teachers because of poor salary, irregular payment, and lack of incentives or motivation.

One of the aims of vocational education is to give guidance to students about occupations. If students are to make wise vocational choices they should be provided with information about the various occupations and their entry requirements.

Brochures, handbooks and guides published by Universities, polytechnics, colleges of education provide information which enable secondary school students to choose appropriate subjects which can qualify them for entry into post secondary courses of their choice.

Industrial and business establishments often use handbooks, product guides and advertisement leaflets showing items that they produce and the services they render.

Such product guides may indicate the production processes employed, working conditions in the industry and business and the type and qualifications of workers needed. Such publications enable students to appreciate the variety of jobs available and so sharpen their interest in their choice of such occupational areas.

Reference books like "Dictionary of Occupational titles" are useful in guidance because they provide information on a large number of occupations which may be of interest to vocational students.

Newspapers and magazines often carry advertisements of vacant positions. Such advertisements usually state the positions advertised, the skills and qualifications required, the nature of the job, duties to be performed by an appointee, salaries and allowances attached to the position. Such publications give students a realistic picture of the employment situation.

Government publications and edicts often indicate government's area of emphasis and need. For instance, if government is interested in obtaining a large number of science teachers in secondary schools, students could be guided to consider seriously choosing science as a teaching subject option in a college of education or university. This study, therefore, was designed to: determine the problems faced in the teaching of introductory technology in secondary schools in Akwa Ibom State.

Research Questions

In the conduct of this study, three research questions were formulated:

1. What are the problems faced in the development of introductory technology in secondary schools in Akwa Ibom State?
2. What are students' attitudes towards introductory technology?
3. What are the available library resources for introductory schools in Akwa Ibom State?

Methodology

The geographical area of the study was Akwa Ibom State.

Population and Sample

The population of the study was made up of secondary school students in Introductory Technology of the area of study. The population was randomly selected.

Fifty students from each of the six secondary schools from different local government areas made up the sample. By this selection, a cross section of the three senatorial districts of the state was covered, such that the findings could be generalised.

Instrument

The instrument for data collection was a structured questionnaire on the development of Introductory Technology (QDIT). The instrument consisted of two sections A and B. Section A sought information on name of school, sex, age and class of student. While section B surveyed problems of developing introductory technology; assessed students' attitude and the availability of library resources. It also assessed students' view of the relationship between the availability of library resources at students interest in introductory technology.

Data Collection and Analysis

A total of 300 copies of the instrument were sent to the subjects out of which 300 were completely responded to and returned means and percentages were employed in data analysis.

Results

Table 1

Problems of Introductory Technology Development

No.	Problems	Great Extent	Moderate Extent	Slight Extent	Negligible Extent
1.	I do attend the workshop for introductory technology regularly	- -	205 (68.3)	- -	95 (37.7)
2.	Programme emphasises more theory than practice	- -	145 (48.3)	- -	135 (51.7)
3.	My school has a good introductory Technology workshop	- -	260 (86.7)	40 (13.7)	- -
4.	I have sufficient materials to practice with during practical	- -	170 (56.7)	130 (43.3)	- -
5.	The equipment and facilities in my introductory technology workshop are functioning	- -	190 (63.3)	- -	110 (36.7)
6.	We have trained introductory technology teachers in my school	- -	180 (60.0)		120 (40.0)

Tables 2

Students Attitudes to Introductory Technology

No.	Attitudes	Great Extent	Moderate Extent	Slight Extent	Negligible Extent
1.	I have encouragement from my parents on my choice of introductory technology as a course of study	-	200 (66.7)	100 (33.3)	-
2.	I was guided by a guidance counsellor before I became interested in introductory technology	205 (68.3)	95 (31.7)	-	-
3.	Introductory Technology is a difficult subject	115 (38.3)	- (86.7)	185 (61.7)	-
4.	Introductory Technology is interesting	210	90	-	-
5.	Introductory Technology is burdensome	100 (33.3)	200 (66.7)	-	-
6.	If I had a choice I would give up introductory technology school	90 (30.0)	210 (70.0)	-	-

Table 3**Library Resources Available in Secondary Schools**

No.	Library Resources Available	Number of Yes Responses	Percentage of Yes Responses
1.	School library as a separate building	100	33.3%
2.	One classroom used as a building	200	66.7%
3.	Library chairs and study carrels	50	25.0%
4.	Textbooks	185	69.7%
5.	Reference books - Dictionaries, bibliographies, encyclopaedias etc.	40	13.7%
6.	Brochures, Handbooks and Guides	110	36.7%
7.	Business Directories and Company Guides	150	50.0%
8.	Current Newspapers and Magazines	35	11.7%
9.	Government Documents and Publications	65	21.7%
10.	Non-book materials e.g. Maps, Photographs, Televisions and realia	235	78.3%

Findings and Discussion

Table 1 shows responses on the extent of library resources available in the schools while Table 2 shows students responses on the extent library resources has affected their interest in the learning of introductory technology and hence the relationship between the availability of library resources and the effective teaching of introductory technology.

Table 1 shows that only 33.3% of respondents have a library as separate building housing resources. This percentage represents only two schools out of the six surveyed. Others have a classroom improvised for library materials which shows that it is not a faculty planned for the school as a matter of policy. Other library resources with more than 50% availability are Business Directories and company guides and non-book materials. But the mean percentage of total availability of library resources in the six schools is 33.7%- very much below average.

Table 2 shows the extent the availability of library resources helps the development of students interest in introductory technology. Responses to

all the four test statement shows a great extent relationship between the availability of library resources and the teaching introductory technology. This calls for an appraisal of library resources to secondary schools.

Technical secondary schools, commercial secondary schools and the conventional grammar schools are no longer in existence in Nigeria. They have been abolished and replaced by a single type of secondary school as prescribed by the National Policy on Education (1977). In the new education system, often referred to as the 6-3-3-4 system, the secondary school programme places emphasis on technical, commercial and grammar school subjects. All students in the junior secondary school are expected to take at least two pre-vocational subjects selected from agriculture, introductory technology, Business studies and Home Economics, students in the senior secondary school are expected to take at least one vocational subject in their final senior school certificate examination. The vocational subjects which include Technical Drawing, Metal work, Woodwork, Electronics and Typewriting. The major aim of the new policy is to make senior secondary leavers easily employable and this, the policy hopes, will be achieved by making every senior school student take at least one vocational subject before graduation.

The objectives of the new policy on education cannot be achieved without library resources as support facilities for effective teaching.

CONCLUSION

This paper has tried to discuss library resources as a factor for effective teaching of introductory technology in secondary schools. Problems of the development of introductory technology have been outlined and the variety of library resources is necessary for vocational education enumerated. A report of a survey of the availability of library resources in secondary schools in Akwa Ibom State shows a deplorable 33.3% availability while students have indicated a very strong relationship between the availability of library resources and their interest in the learning of introductory technology.

There is therefore evidence to show that the provision of more relevant library resources could enhance the effective teaching of introductory technology and hence support the new policy of education.

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