

# THE IMPACT OF BASIC TECHNICAL SKILL LITERACY EDUCATION THROUGH INTRODUCTORY TECHNOLOGY EDUCATION IN THE CHOICE OF TECHNICAL SUBJECTS IN TECHNICAL COLLEGES IN DELTA STATE

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## Abstract

The study was actually carried to ascertain the influence of basic skill literacy and functional vocational education through integrated introductory technology colleges. The population was made up of all the students in the Government Technical Colleges in Delta State. Questionnaire was used for data collection. The instrument was validated by five experts. The Instrument was also tested for reliability which rated 0.82 by Cronbach Alpha. The data was analysed by the use of percentages and mean. Findings indicates that there is a high positive influence on the career option in technical colleges to the students by a quantitative functional literacy vocational education called introductory technology. Recommendations were made and conclusion was also drawn.

## Introduction

Federal Government introduction of 6-3-3-4 system of education in 1977 which vocational subjects are inclusive in the reforms, defined technical education as that aspect of education which leads to the acquisition of practical and applied skills as well as basic scientific knowledge. The 6-3-3-4 system requires that the secondary school programme is of six years duration, divided into a three year junior secondary school and a three year senior classes. There is a reasonable emphasis placed on technical, commercial and general subjects in the first three years (Okoro, 1993).

All students in the junior secondary school are expected to take at least two pre-vocational subjects selected from agriculture, introductory technology business studies, home-economics, computer education. The next three years that is the senior class is the time a student is expected to take at least one vocational subject which will definitely determine his future career.

Olaitan (1990) stated that one of the objectives of introductory technology is to develop career awareness among the junior secondary school students so that they can contribute towards self dependability in terms of job and employment as well as enhance the nation's economic development. Anaele (1998) said that the nation's level of technology depends on the extent to which current scientific knowledge is put to practical use. Elekwa (1984) in Anaele's paper saw technology as cultural method developed in human communities for dealing with the physical and biological environment. Thus any way in which our nation can copy the examples of China, Japan, India and other Eastern European nations in terms of developing technology from the grass root prevocational level will help us to actualize our fast eroding dreams. This is an indicator that no nation can achieve economic and technology greatness with out directing considerable effort and unbiased attention to his potential would be workforce.

It was in realization of the import of these that Federal Government of Nigeria introduced introductory technology as a prevocational subject of the junior secondary school. Though the stage of pre vocational education is more of expository stage which helps to enhance and draw students attention towards technology and all its values to the nation and man kind. It will also in learning experiences designed to expose that level of students to certain occupations so as to appreciate its value and determine, whether any of the occupations fit their interests, needs and abilities.

Thus Makanjuola (1988) was of the view that knowledge of introductory technology is very essential if students are to have solid foundation in pre-vocational subjects. Olaitan (1996) identified the following objectives for introductory Technology.

To provide pre-vocational orientation in technology.

To provide basic technological literacy and stimulate creativity among secondary school students.

Okeke (1996) stated that it was poor technological orientation in the pre-vocational level in our national curriculum programme and implementation that has made this nation to be backward economically. Anaele (1998) stated that there is need to inculcate in the students the habit of seeing technology as what they can develop on their environment. It is therefore necessary at this time to call

for reappraisal of our system of education especially as it involves vocational education. Okorie and Ezeji (1988) stated that personal interest and ability, parental influence, economic benefit, social influence and peer group play a major role in determining an individuals' choice of occupation. And since the children are the future hopes of tomorrow. It is therefore necessary to study once more the impact of prevocational subjects through technology education to the choice of technical subject in senior classes.

### **Research Questions**

The following questions guided the study:

1. To what extent does the basic skill literacy developed through introductory technology affect student's choice of technical subjects?
2. To what extent does the workshop practice of introductory technology affect student's choice of technical subjects?
3. To what extent does awareness of job opportunities offered by the students of introductory technology affect student's choice of technical subjects?
4. To what extent does awareness and education of parents affect them to encourage their children towards choice of technical subjects in schools?

### **Population**

The population consisted of all the students in the technical colleges in Delta State. The technical colleges are Located at Sapele, Agbor, Ogor and Issele Uku. The students did introductory of the junior secondary and have chosen a craft option (of study) as an area of specialization in the senior secondary college secondary part of his/her study in the technical colleges. There are 650 students in the college used for the study. No samples for the study since the entire students were used for the study. The teacher counsellors were also used without any sample. The number of teacher counsellors were 50.

### **Instrument**

The instrument used for data collection was a 40 item structured questionnaire based on the research questions and literature. The instrument was validated by five experts from Delta State University, Dept of Vocational and Technical Education. The instrument was also subjected to reliability test through cronbachalph. A correlation coefficient of 0.82 was obtained.

### **Date Collection and Analysis**

700 copies of the questionnaire were distributed to the respondents. All the copies were returned duly filled. The data collected were analysed using mean based on five point Likert scale. Any item with a mean of 3.50 and above was accepted.

### **Findings**

1. Ten means which the basic skill literally developed through the study of introductory technology influenced students choice of technical subjects (see Table 1.)
2. 15 ways the workshop practice of introductory technology influenced students' choice of technical subjects (see Table 2)
3. Ten ways awareness of job opportunities offered by the study of introductory technology influenced students' choice of technical subjects (see Table 3)
4. Five ways awareness and education of parents by the teacher counsellors affects them to encourage their children in the choice of technical subjects (see Table 4)

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**Table 1: Mean Responses of Students on the Basic Skill Literally Developed Via Introductory Influence on Choice of Technical Subjects.**

S/NO	Items	X	Remark
1.	Ability to identify some types of lines used in Drawing	4.10	Accepted
2.	Ability to Identify some drawing instruments are basic	4.22	Accepted
3.	Ability to identify some symbols and signs in wood work	3.96	Accepted
4.	Being able to draw basic objects with scales	3.81	Accepted
5.	Ability to identify some signs and symbols in building tech	4.16	Accepted
6.	Being able to identify some electrical signs and symbols	4.12	Accepted
7.	Identification and recognition of electronic symbols and components	3.90	Accepted
8.	Identification and recognition of metal work symbols and signs	4.00	Accepted
9.	Being able to identify and name some symbols and components of motor	4.20	Accepted
10.	Ability to identify and do some free hand sketches of some components	3.84	Accepted

**Table 2 Mean Responses of Students on the Influence of Introductory Technology Practical In The Choice of Technical Subjects.**

S/No	Items	X	Remark
1.	Teaching with demonstration makes me to like Intro tech lessons	4.00	Accepted
2.	I am more Interested in practical work of Intro tech	4.12	Accepted
3.	Practical in Intro Tech makes me to understand it well	4.20	Accepted
4.	Practical in intro tech make me to know the importance of technology to mankind	4.08	Accepted
5.	Practical in Intro Technology makes me to value and appreciate every product around me.	4.00	Accepted
6.	It makes the course contents relevant to life	3.96	Accepted
7.	Things learnt in Into Tech practical are not easily forgotten	4.41	Accepted
8.	Field Trips and excursions to Industries and plants makes me to identify with Intro Tech	4.50	Accepted
9.	Operations of machines and equipment stimulates my interest in and love for technology	4.13	Accepted
10.	Use of hand tools promotes interest in technical subjects	34.84	Accepted
11.	Film shows and projectors of some practical works make students of Intro Tech to be proud of technical subjects	3.88	Accepted
12.	Practical makes students of Intro Tech to be in love with Technical Drawing	4.14	Accepted
13.	Designing and sketches become my best subject because of practical in Intro Tech.	3.81	Accepted
14.	Because I was taught how to produce some tools like T squares, openers etc in Intro Tech that promotes my zeal for technical subjects	3.79	Accepted
15.	Intro tech Teachers always repair machine tools and their motors and these increased my interest in technical subjects	3.75	Accepted

**Table 3 Mean Response of Students on How Awareness of Job Opportunities Offered by Intro Tech Influences Their Choice of Technical Subjects**

S/No	Items	X	Remark
1.	Technical subjects help to curb mass unemployment	3.88	Accepted
2.	There are high employment opportunities for technicians	3.96	Accepted
3.	There are scholarships in technical subjects	4.00	Accepted
4.	There is high demand of technical workers by the industries and companies.	4.11	Accepted
5.	Technical subjects provide opportunities for self-employment and self reliance	4.80	Accepted
6.	Technical subjects are give preference admission in tertiary institutions in Nigeria	4.50	Accepted
7.	Technical subjects help to hence the economy of this nation	4.30	Accepted
8.	Technical workers are better paid than other workers	3.53	Accepted
9.	Government encourages technical workers by given them logistic support through poverty alleviations programmes	3.60	Accepted
10.	Government creates job more and more to encourage people in to technical subjects	3.58	Accepted

**Table 4: Mean Responses of Teachers Counsellors on How Awareness and Education Influence Parents To Encourage their Children in the Choice of Technical Subjects.**

S/No	Items	X	Remark
1.	Production of key, holders, keys, openers etc made parents to develops interest in technical subjects	4.18	Accepted
2.	Parent/ teacher seminars on importance of technology helped	4.00	Accepted
3.	Production of technical subjects are offered jobs easily	4.10	Accepted
4.	Govt/ Counsellors propaganda on self rename / self	4.33	Accepted
5.	The students in technical subjects are usually offered employment in the final year	3.91	Accepted

### Discussion of the findings

The finding of the study on the influence of basic skill literacy developed through the study of introductory technology agree with the findings of Olayinka (1977); Osaky (1986); Makanjuola (1988) and Anaele (1998), that the study of Introductory Technology would help to enhance the knowledge and craft skills of students which influences the students in the choice of Technical subject and retention on the subjects as a future career. The items on technological basic literacy with mean values rate of 3.81 to 4.22 as indicated in Table One shows that technological basic literacy through the study of subjects. This is in line with Kroll (1988) on the career education and influence of basic prevocational education on the children. Though this study contains more explicit items in the instrument, that help to look closely on those competences actually acquired by the products that makes them to admire technical skill education and this agrees with Anaele (1998).

The findings as was shown in tables 2 and 3 show that Introductory Technology practical influenced students choice of technical subjects. This still agreed with Anaele (1998).

The findings as was shown in Tables 2 and 3 show that Introductory Technology practical influenced students choice of technical subjects. This still agreed with Anaele (1998), Makanjuola (1988) and Osuala (1979) that for any solid and meaningful technical base to be made in this nation there must be a sound fundamental skill development and Elekwa (1984) who stated that introductory technology is designed to introduce technology at the beginning of secondary school career in order to expose the students to technical occupations.

The Table 3 equally shows the high level of awareness of job opportunities that are available on the choice of technical subjects and Table 4 equally stated the high level of awareness and education of parents by the teacher counsellors and how it has affected the choice of technical subjects positively. This agrees with Ezeji and Okorie (1988) that occupational information is necessary to students and parents through many agencies. Ogar (1992) stated that there are

employment opportunities for technical workers. Anaele (1998) in support of this, stated that the interest students develop in a particular subject will make them pay more than the usual attention and also influences the choice of such subject or related ones in due time.

### **Conclusion**

The findings of the study shows that introductory technology as a pre (technical) vocational subject influences students' choice of technical subjects and their choice of their career. And this calls for more societal interest and support of technical subjects since it is the determining factor of our future career. And since every well meaning nation is encouraging its citizens towards technology education, it will be wise for our nation also to embark in more awareness and education of the masses on the important of technology to our economy.

### **Recommendation**

From the of the study, the following recommendations were made:

1. The teaching and learning of introductory technology must involve appropriate practical works to enhance students' interest in technology subject
2. Technical subjects be offered in many post primary schools in order to make introductory technology taught in those schools meaningful to the students and that the beneficiaries of the skill can continue with it in the same school.
3. Since technology can only be developed through pre-vocational education, public media and counsellors should intensify publicity on the mass education and awareness of importance of choice of technical subjects to the nation and the public.
4. More technical colleges should be established at least ten in each states of Nigeria to make it grass root based.
5. More incentive should be given to the product of technical subjects and scholarship for student of technical subjects at all levels of education to encourage others.
6. Inspectors should be sent to each school to ensure that functional skill based introductory technology are run in these schools.

### **References**

- Anaele, E. O. (1998) The Influence of Introductory Technology In The Choice of Technical Subject In Enugu State Technical Colleges. *Journal of Vocational and Adult Education* Vol. No.1
- Amuka, L. (1993) Essential Ingredients For Effecting Efficient Vocational Teacher Education. *Nigerian Vocational Association Journal*, Nsukka.
- Bamiro, O. A (1990) *Introductory Technology For Schools and Colleges*. Ibadan: Evans Brothers Publishers Ltd.
- Elekwa, (1984) *Introductory Technology In Schools as a Basis for Technical Learning*. Evans Brothers Publishers Ltd.
- Ezeji, S. C. O. A. and Okorie, J. U. (1988) *Element of Guidance, Vocational and Career Education*. Onitsha: Summer Publisher Ltd.
- Kroll, A. M. (1988) Career Education: Impact on Employment. *The Vocational Guidance*, 24 (3) 29-37.
- Makanjuola, S. A. (1988) *Introductory Technology For Junior Secondary Schools*. Ibadan: University Press.
- Ogar, G. (1982) Career Opportunities in Vocational and Technical Education. *Technical Education Today*, 2, (1)
- Olaitan, S. O. (1990). Vocational Education: Solution to Unemployment and Drop Out Problems Among Recipients of Secondary Education. *Nigerian Vocational Journal*,4, (6), 9-13

- Olaitan, S. O. (1996) Vocational and Technical Education In Nigeria (Issues and Analysis). Onitsha: Noble Graphic Press.
- Olayinka, M. S. (1977) Job States Faction of Youths and Education Aspiration. *West African Journal of Education*, 1 (3).
- Okeke, B. C. (1996) Job Satisfaction and Involvement of Technical College *Graduates* in Delta State Industries Unpublished Ph. D. Thesis Nsukka.
- Osaky, I. O. (1986) Occupational Choice: The Role of The Guidance Counsellor. *Journal of Applied Psychology*.
- Osuala, E. C. (1987) *Hand Book on Vocational, Technical Education for Nigeria*. Oruowolu: Pacific Publishers Ltd.