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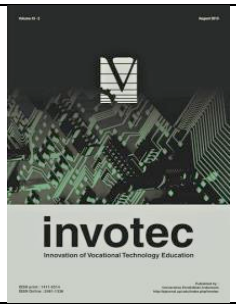

Influence of home-school related factors on students' schooling attitude towards basic technology in Nigeria

Ibiwumi A. Alade*, Olusiji Olaseni Lemo
[1]*Department of Curriculum and Teaching, Faculty of Education, University of Eswatini, Swaziland*
[2]*Department of Industrial Technical Education, Tai-Solarin University of Education Ijagun, Ogun State, Nigeria*

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Authors email: aiabiodun@uniswa.sz

ABSTRACT

Students' readiness to receive what is taught in classroom is a condition of attitude influenced by many factors, and Basic technology in Nigerian junior schools is often affected by many factors. For the subject in schools not to go into extinction therefore, and for the future career prospects embedded in it, this study explored influence of home-school related factors on students' schooling attitude towards basic technology in Nigeria. Two research hypotheses were tested in the descriptive survey, and 250 junior secondary schools III students were randomly selected in Agege Local Government Area of Lagos State. Students' Schooling Attitudinal Factors' Scale (SSAFS) (r = 0.82) was used for data collection while multiple regression statistical tool was used for data analysis. The findings recorded joint (80.8%) and relative influences of home environmental status (0.229, P < .05), school facilities (B = 0.227; P < .05), peer group (B = 0.215; P < .05), teachers' personality (B = 0.104; P < 0.5), and type of school (B = 0.102, P < 05) on students' schooling attitude towards basic technology in junior secondary schools. The results imply that the identified factors among others should be given adequate attention by all stakeholders of education.

1. Introduction

One of the constructs embraced by United Nations for an envisioned development is the concept of sustainable development. That is, a kind of development initiated and pursued by giving attention to the needs of the present generation without compromising the needs as well as preservation of the future emerging generation. An integral part and a means in the educative process for achieving sustainable development therefore is vocational education. Education is recognized as the bedrock of any meaningful development while vocational education in particular is the cornerstone for any sustainable technological development programme (Abiola, 2017).

A significant portion of vocational technical education fostering human resource development, productivity and economic orientation at the pre-vocational level is introductory technology now known as basic technology. It is an integrated subject and component of vocational technical education (VTE) which comprises woodwork, metalwork, building technology, auto mechanics, electrical/electronics and technical drawing which is taught at the junior secondary school level.

(Abimbola, Akorede & Sodunke, 2016:183). Basic technology curriculum thus becomes necessary due to technological development and national policy orientation to the teaching of technology as an integral part of world globalization trends in education (Alade, 2010).

In the National Policy on Education (Federal Government of Nigeria, 2013), it is envisaged that the training for occupation at the junior secondary school level is to provide a pre-vocational orientation and enhance the learning and comprehension of the subject matter of basic technology in a more practical way. By so doing, the learning-by-doing will be initiated for further training in vocational technical subjects/courses at the higher level .In the end, students would be able to demonstrate trade skills and market their saleable skills as employees and employers of labour later in their career choice as they advance in vocational- based programmes. As stated in the government revised National Policy on Education (NPE), basic technology as one of the pre-vocational subjects is offered to students at the junior secondary school level for the purpose of: introduction to the world of technology and appreciation of technology towards interest and choice of a vocation at the end of junior secondary school and professionalism later in life; acquiring technical skills; exposing students to career awareness by exploring usable options in the world of work, and enabling youths to have an intelligent understanding of the complexity of technology. In order to achieve the specific target as stated in the National Policy on Education, the subject must be sustained, and the schooling attitude of students towards the learning of the subject is very important.

In the light of the stated purposes for basic technology at the upper basic level in Nigerian secondary schools, attention should be paid to strengthening the bridge between education and schooling and preparation for the world of work with attention paid to improving vocational education and training in Nigeria. The purposes for which basic technology is installed in junior secondary schools would only be achieved if it is effectively taught and learnt in classes by students. This in the end is expected to improve technological manpower of Nigeria as a country where such products could work productively as participatory citizens with skills and related knowledge to the needs and problems of their immediate environment. Observation however shows that the reverse is obviously the case in Nigerian public schools in recent times. Osibanjo (2016) reported that despite governments' efforts to encourage the study of Basic Technology, students do not seem to be interested in the subject.

It is quite clear that the issue of interest or no interest in the subject (basic technology) could not be diffused from attitude. Attitude plays an important role in determining people's reactions to situations (Al-Zaidiyeen, 2010). It exerts an influence directly or indirectly upon the individual's response to all objects and situations with which it is related (Allport, 1935, cited in Al-Zaidiyeen, 2010). In this respect, schooling attitude of students in junior secondary schools no doubt, would have positive or negative emotional reaction towards classroom instruction of basic technology. Such reaction is very likely to have a carry-over effect on the sustainability of basic technology in schools as well as the career choice of prospective senior secondary school students in their very near future. The predisposition of students to schooling and classroom instruction in the contemporary Nigeria has often resulted into an enduring syndrome of response consistency with regard to how students perceive basic technology as one of the pre-vocational subjects in Nigerian Junior Secondary Schools.

The focus of this paper thus has footing in the theories of… The focus of this paper thus has footing the theories of attitude. Attitude is a function of people's assumptions about the probability of various consequences arising from the performance of behaviour and evaluations of how good or bad those consequences are (Trafimow, 2004). This claim falls with expectancy-value attitude theories proposed during the 1950s and 1960s. Specifically, expectancy-value theory is a theory of motivation that describes the relationship between a student's expectancy for success at a task or the achievement of a goal in relation to the value of task completion or goal attainment (Mathew, Bright,, Barrero- Molina & Hawkins, 2022). As a result; the value attached to schooling by students largely determines their learning of basic technology. Similarly, when one has learned a definite subject, one is expected to think and behave in a different way from then on, and one's values have been differentiated (Kara, 2010). The disposition of upper basic technology students towards

schooling is bound to have carryover effects on how basic technology subject integrated in upper basic education in Nigeria would be valued and even sustained on the school curriculum.

Moreover, experts have found that school connectedness is very important in both health and learning. Students who feel connected to school are more likely to attend school regularly, stay in school longer, have higher grades, and test scores (Adewumi & Ogunlade, 2010). Students' willingness to attend school regularly, participate and adjust in school programmes are very likely to have direct or indirect influence on sustainability of the school subjects, especially where the choice of each subject at a level determines the choice of similar subject at higher level. These explanations affirm the deduction from expectancy value theory that there is always a connection between what is valued and what is expected. In order to buttress the explanation on school connectedness, Abbot, Donnel, Hawkins, Hill, Kosterman and Catalano (2008) cited in Adewumi and Ogunlade (2019) deduced that school climate is related to school connectedness, because without a positive and welcoming school climate students are unlikely to experience connectedness. In the same manner, the schooling attitude a student put up largely determines his attitude to classroom instruction of school subjects including basic technology.

In the light of connectedness among the factors that relate to schooling and learning of school subjects, many factors affect schooling attitude towards every school subject in both developed and developing countries of the world. 'For instance, achieving meaningful teaching and learning in the field of education can be influenced by many factors. One of these factors is teachers' attitude. Research shows that the success of technology use in the educational settings largely depends on teachers' attitudes towards technology use (Albirini, 2006). For the teaching of basic technology, Osibanjo (2016) observed that the situation in most secondary schools in Nigeria reveals the poor state of facilities and lack of well-equipped laboratory.

Also, obvious observation showed that schooling attitude of students towards instructional sustainability of basic technology over the years has not been encouraging -.It is often classified as a part of vocational-based subjects meant for below average students. Thus, there are several factors affecting students' attitude to classroom instruction of basic technology and its status among the other junior secondary school subjects. In respect of mathematics, Osarumwense and Oyedeji (2011) recorded that one of such factors which affects learning is environment of students. Learning environment comprises so many factors like social environment, structural environment, human resource, political environment and cultural environment of learning. Ammasahun (2011) also opined that personality, social and genetic factors affect classroom instruction. Further, available literature is replete with a plethora of possible factors that are responsible for negative learning behavioural outcome including students' attitude to school subjects. Many factors are thus influential to how effective classroom instruction is before the outcomes are measured. Adekola (2012) posited that school factors such as teachers' low level of competence, lack of incentives for teachers, and learners' unserious attitude, to mention just a few affects students' achievement. Aside these factors, cultural experiences provided by the parents (Home factors), parental methods of cultural, intellectual and language activities also influence a child's intellectual development. Another factor which influences students' life, and attitude towards any entity is peer-group. Peer-group appears to be fundamental among other factors that propel learners' influences on fellow learners (Alade, 2011). Many a time, peer group usually share common views and promote their wish for or against an issue e.g. schooling attitude and interest in any subject of choice by any member of their group.

Further, Alade (2012) in his study on contributing factors to effective teaching and learning with implications for curriculum development and quality technical teacher production in Nigeria found out that technical education, students' gender, area of specialization, college type, technical education, lecturers' qualifications, working experience, college facilities and methods of teaching relatively and jointly influence the acquisition of basic knowledge, vocational skills and attitude to technical teacher production. In addition, Ajayi, Ucha & Zubaru (2014) found out that gender and school typology had significant effects on the utilization of instructional materials for teaching and learning.

On the basis of observations from the available literature, and to sustain classroom instruction of basic technology and future career prospects of the students in vocational trades,, vis-a-vis to

improve the societal image being accorded basic technology as a pre-vocational subject, this study examined joint and relative influence of home-school related factors on students' schooling attitude towards basic technology in Nigerian junior secondary schools. The study therefore examined influence of home-school related factors on students' schooling attitude towards basic technology in Nigeria. The conceptual framework for the study captures the influence of home environmental status, school factors, peer group, teachers' personality and type of school (The predictor variables).and students' attitude towards basic technology (The dependent measure) as presented in figure 1.

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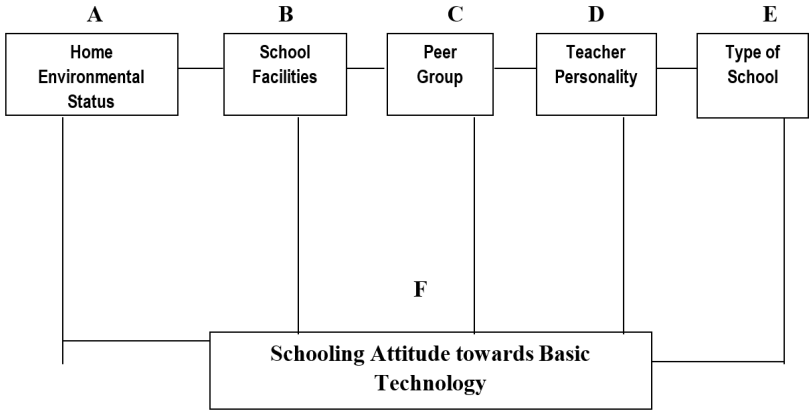

Figure 1: Conceptual Framework: - Home-School Related Factors and Students' Schooling Attitude towards Basic Technology

As shown in figure 1, the identified predictor variables (A to E) have joint influence on the dependent measure (F). Likewise, each of the predictor variables has relative influence on the dependent measure (F). All put together make up the conceptual framework of the factors considered in the study.

2. Purpose of the Study

The main purpose of the study was to examine the influence of home-school related factors on students' schooling attitude towards basic technology in Nigeria. The specific objectives of the study were to examine the:

a. Joint influence of home environmental status, school facilities, peer group influence, teachers' personality and type of school on students' schooling attitude towards basic technology in junior secondary schools.
b. Relative influences of home environmental status, school facilities, peer group influence, teachers' personality and type of school on students' schooling attitude towards basic technology in junior secondary schools.

3. Research Hypotheses

The following research hypotheses were raised and tested at 0.05 level of significance.

Ho_1: The joint influence of home environmental status, school facilities, peer group influence, teachers' personality and type of school on students' schooling attitude towards basic technology in junior secondary schools is not significant.

Ho_2: The relative influence of home environmental status, school facilities, peer group influence, teachers' personality and type of school on students' schooling attitude towards basic technology in junior secondary schools is not significant.

4. Scope of the Study

The geographical scope of the study was limited to public and private junior secondary school III students in Agege local Government Area of Lagos State in Nigeria. The content scope covered

students' home environmental status, school facilities, peer group influence, teachers' personality and type of school as correlates of students' schooling attitude towards instructional sustainability of basic technology.

5. Methodology

This study adopted a descriptive survey research of the ex-post-facto-design approach. The design was considered appropriate because the approach allows information to be obtained from a representative sample of the population in actual situation as they exist. The population was all junior secondary schools (JSS) students in public and private secondary schools in Agege Local Government Area of Lagos State. Five public secondary schools and five private secondary schools were purposively selected out of the available thirty public secondary schools and fourteen fully registered private secondary schools in the Local Government. Based on a minimum of twenty years of establishment and consistency in the teaching of basic technology in those schools without any gap. Available records showed that there were 875 junior secondary school lll students in the public schools and 125 junior secondary school lll students in the private schools totaling 1000 students out of which 150 students and 100 students were randomly sampled due to their readiness and availability during the period of data collection. The sample for the study is 250 junior secondary school III students' altogether. A self-developed Schooling Attitudinal Factors' Scale (SSAFS) with consideration of existing literature on the factors considered in the study was used for data collection. The SSAFS has two sections – Section A is basically on the demographic information of the students (respondents) thus – gender, class and type of school. Section B of the research instrument is divided into five parts - 1-5. Part 1 identified five cogent items on students' home environment; Part 2 has five items on status of school facilities; Part 3 identifies five characteristics influence often experience in peer group, while Part 4 contains five items on basic technology teachers' personality indicators . Part 5 has ten items on attitude of students towards basic technology as a subject in terms of interest, likeness of basic technology assignment and feelings towards basic technology class work among others. The spread of o (pinions identified are strongly Agree (SA), Agree (A), Disagree (D), and strongly Disagree (SD). The validity of the SSAFS was determined by three experts in technical education who critique it in terms of the relevance to the factors considered in the study, phrasing, coverage of the items in line with the study variables and simplicity of the items for the respondents' (students') understanding. Upon an administration of twenty copies of the research instrument to JSSIII students outside the study location at two weeks interval consecutively, Pearson Product Moment of Correlation Statistical tool was used to determine the reliability index. The reliability index (r) of 0.82 obtained implying 82% was considered very high enough as the suitability level of the SSAFS. The data were collected by the researcher, two research assistants and some secondary school teachers who teach in the school selected for the study – The data collection lasted for about two weeks and half weeks. The data analysis was done by using inferential statistics of multiple regression analysis to test the null hypotheses for significance at the level of 0.05.

6. Result

Ho_1: The joint influence of home environmental status, school facilities, peer group influence, teachers' personality and type of school on students' schooling attitude towards instructional sustainability of basic technology in junior secondary schools is not significant.

Table 1: Multiple Regression Table Showing the Joint Influence of the Identified Factors on the Prediction of Students' Schooling Attitude towards Basic Technology

Model	Sum of Squares	Đf	Mean Square	F	Significant
Regression	164.203	5	101.750	3.423	.000(a)
Residual	506.207	245	.073		
Total	670.410	250			

(a) Predictors: (Constant). Home environmental status, School facilities, peer group influence, teachers' personality and type of school.

(b) Dependent Variable: Schooling attitude towards basic technology

a. Model Summary

Model	R	R-Squares	Adjusted R-Square	Std. Error of the Estimate
1	0.901[a]	0.812	0.808	0.25661

(a) Predictors: (Constant). Home environmental status, School facilities, peer group influence, teachers' personality and type of school.
(b) R = 0.901; R^2 = 0.812; R^2 (Adjusted) = 0.808; Standard Error of the Estimates = 0.25661

b. ANOVA[b]

Model	Sum of Squares	Đf	Mean Square	F	Significant
Regression	164.203	5	101.750	3.423	.000(a)
Residual	506.207	245	.073		
Total	670.410	250			

The results in Table 1 a and 1b indicate that home environmental status, school facilities, peer group influence, teachers' personality and type of school jointly significantly influence students' schooling attitude towards of basic technology in Junior Secondary schools (R =0.901; R^2 = 0.812; R^2Adjusted = 0.808; F (5,245) = 3.423; P =<0.05). This implies that the predictor variables jointly accounted for a variation of about 80.8% or 81.2%, while other extraneous variables or factors accounted for about 8.8% of the criterion variable. The significant result would not have been due to chance. The research hypothesis which stated that the joint influence of home environmental status, School facilities, peer group influence, teachers' personality and type of school on students' schooling attitude towards basic technology in junior secondary schools is not significant was rejected by the findings of this study.

Ho_2: The relative influence of home environmental status, school facilities, peer group influence, teachers' personality and type of school on students' schooling attitude towards instructional sustainability of basic technology in junior secondary schools is not significant.

Table 2: Coefficient Table Showing The Relative Influences of Home Environmental Status, School Facilities, Peer Group Influence, Teachers' Personality and Type of School on Students' Schooling Attitude Towards Basic Technology

	Unstandardized Coefficients	Coefficients Std. Error	Standardized Coefficients Beta	T	Significant
Constant	2.263	0.184			.000
				3.108	
Home Environmental Status					
School Facilities	0.486	0.59	0.229	3.626	0.001
Peer Group Influence	0.0510	0.69	0.227	5.137	0.000
Teachers' Personality					
Type of School	0.510	0.048	0.215	5.311	0.006
	0.318	0.019	0.104	5.573	0.000
	0.215	0.080	0.102	4.090	0.000

Dependent Variable: Students Schooling attitude towards Instructional Sustainability of basic technology

The results in table 2 clearly show the various relative influences and level of significant of the predictors (independent variables) to the prediction of students' schooling attitude towards basic

technology in junior secondary schools expressed as beta weights. Home environmental status has the highest beta weight influence (B = 0.229, P<.05) followed by school facilities (B = 0.227, P < .05; peer group influence (B = 0.215, P<.05); teachers' personality (B =104, P<.05) and lastly type of school (B = 0. 102; P<.05). The null hypothesis which stated that the relative influence of home environmental status, school facilities, peer group influence, teachers' personality and type of school on students' schooling attitude towards basic technology in junior secondary schools is not significant was rejected by the findings of this study.

7. Discussion of Findings

In the findings of the study, home environmental status, school facilities, peer group influence, teachers' personality and type of school jointly correlated positively with students' schooling attitude towards instructional sustainability of basic technology in junior secondary schools (R = 0.901; R^2 = 0.812; R^2 Adjusted = 0.808), (table 1a and 1b). This is similar to that of Ajayi, Ucha and Zubaru (2014), Alade (2012) and Adekola (2012) who at various times found out that home, school and learner factors usually contribute to attitude and academic performance of learners at various levels of education. It becomes clear that the home which is regarded as the first socializing agent, has a considerable influence on students' participation in instructional practices. The multiple regression analysis further implies that many factors could work together for effective teaching and, learning and learning of various school subjects. School factors and the nature of peer group students belong to could either motivate or mar their schooling attitude towards what is taught and what is learnt at school.

In relative terms, the prominent contributions of home environmental status, school facilities, peer group influence, teachers' personality and type of school towards students' schooling attitude with implications on instructional sustainability of basic technology as presented in table 2, makes it clear that they are all important factors to reckon with if at all the objectives of school subjects would be achieved, basic technology inclusive. They are indeed very vital for the promotion of qualitative basic technology in Nigerian secondary schools. Also, the continuous teaching and learning of basic technology as a school subject in Nigeria would also determine whether the yearnings and aspirations of prospective students of vocational-based students would be met in the future or not. That is why Abiola (2017) once submitted that attention should be paid to strengthening the bridge between education and schooling and preparation for the world of work with attention also paid to improving vocational education and training. Basic technology thus remains a significant portion of vocational technical education fostering human resource development, productivity and economic orientation at the pre-vocational level.

In order to guard basic technology in Nigerian secondary schools from being swept off our feet by many theoretical- based subjects and the science-oriented subjects, the factors considered in this study should be taken cognizance of by education stakeholders. Basic technology remains an essential subject subsumed in the broad-field of vocational and technical education. Its improvement and sustainability in Nigerian 3-3 secondary school education structure is very important. Modern technological infrastructure well equipped workshops, facilities and the factors considered in this study among others are altogether essential if students' attitude towards schooling and the subject is to improve. It is a subject that could create the interest in students for a career in vocational industrial technical education and allied technology field and trades. Overall, the factors which contribute to schooling attitude of students as found out in this study are among the strong determinants of their predisposition towards basic technology.

8. Conclusions and Recommendations

The teaching and learning of basic technology in Nigerian secondary schools is not independent of students' schooling attitude as significantly determined by many factors, some of which were empirically considered in this study. It is crystal clear as explored in this paper that myriads of factors have much to do in the process of education because they contribute to classroom instruction. They contribute relatively and jointly to the attitude of students to teaching and learning, and must be given adequate attention by all stakeholders of education in the contemporary times.

More sensitization of parents/guardians for good home parenting of school-going youth; and up to date evaluation of the status of basic technology in schools should be made paramount. This is with a view to re-envisioning the subject to stimulate learners towards a career choice in skilled-based trades later in higher education.

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