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EVALUATION OF EDUCATIONAL INPUT, PROCESS VARIABLES AND LEARNING OUTCOME AS DETERMINANTS OF QUALITY EDUCATION IN NIGERIA

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Abstract:
This study is designed to examine the composite and relative effects of educational input, process variables and learning outcomes on quality of secondary school education among selected employers of labour in south west, Nigeria. Descriptive research design of correlational type was employed to investigate the relationship that exists between the educational input, process variables and learning outcomes on quality of secondary school education among the selected employers of labour in south west, Nigeria. 518 employers of labour in south west, Nigeria were used for the study with 323 males and 195 females. Primary data were collected from the concerned individuals using questionnaire tagged "Perception of Employers' of Labour on input, process variables and learning outcomes on quality of secondary school education in Nigeria". This instrument was divided into five sections viz the demographic, input, processing, product and quality of secondary school education sections, all together has a test-re-test reliability coefficient of 0.71. Correlation and multiple regression analysis were used to analyze the three research questions that were raised at 0.05 levels of significances. The result revealed significant composite effect and relative contributions with curriculum as the most potent predictor ($\beta = 0.544$; $t= 7.692$; $p< 0.05$), followed by teachers quality ($\beta = 0.531$, $t=12.767$, $p<0.05$) followed by school friendly environment ($\beta = 0.445$, $t= 5.696$, $p<0.05$) followed by evaluation of learners ($\beta = 0.405$, $t= 3.924$, $p<0.05$), followed by learners support ($\beta = 0.107$, $t= 1.987$, $p<0.05$) and learners' discipline ($\beta = 0.176$, $t= 2.369$, $p<0.05$). Based on the findings of this study, it was recommended that parents should see to the education need of their children early enough. Also, that

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teachers' quality should be looked into on issues of teaching-learning; curriculum implementation, learners support and learners discipline. Also, that curriculum should be prepared so as to make it relevant to individuals, cooperate existence and at large for national development.

Keywords: evaluation, input, process variables, learning outcome, quality education

1. Introduction

Education is the universal phenomenon which allows all human societies to develop the prerequisite knowledge, experience and skills for their preservation and growth. It is a tool for imparting knowledge, a process by which an individual acquires the physical, social, intellectual and moral capabilities required to function effectively and become a useful member of his/her society. It is an instrument par excellence for effecting national development (FRN, 2004), as well as for individual socio-economic empowerment and poverty reduction. For education to be useful in proper manpower development, it has to be qualitative. Qualitative education is not only essential for meeting people's basic needs, but is also fundamental in fostering the conditions for global peace and sustainable development. All young people need to learn in active, collaborative and self-directed ways in order to flourish and contribute to their communities. Along with the basics, they need to acquire attitudes, values and skills as well as information. Their teachers, peers, communities, curriculum and learning resources must help prepare them to recognize and respect human rights globally and to value global well-being, as well as equip them with the relevant skills and competencies for 21st century employment opportunities. To achieve this, it is not enough to measure what learners learn: it is essential to target the classroom experiences that fundamentally shape student learning, and emphasize the range of skills required for lifelong well-being and societal cohesion like- quality of teachers, frequent evaluation, learners support, school friendly learning environment and learner's discipline.

A. Quality Content

Quality content refers to the intended and taught curriculum of schools. National goals for education, and outcome statements that translate those goals into measurable objectives should provide the starting point for the development and implementation of curriculum (UNICEF, 2000). Research on educational practices and projections about future needs in society contribute to current understanding of the structure of school curriculum. In general, curriculum should emphasize deep rather than broad coverage

of important areas of knowledge, authentic and contextualized problems of study, and problem-solving that stresses skills development as well as knowledge acquisition. Curriculum should also provide for individual differences, closely coordinate and selectively integrate subject matter, and focus on results or standards and targets for student learning (Glatthorn & Jailall, 2000). Curriculum structure should be gender-sensitive and inclusive of children with diverse abilities and backgrounds, and responsive to emerging issues such as HIV/AIDS and conflict resolution. In all content areas, curriculum should be based on clearly defined learning outcomes and these outcomes should be grade-level appropriate and properly sequenced. The specific content of school curriculum, however, depends on local and national values. In the main subject areas of primary education, which include language, math, science and social studies, little variation is found among different regions in the developing world.

B. Teachers Quality

There is need to more attention on educational processes — how teachers and administrators use inputs to frame meaningful learning experiences for students. Their work represents a key factor in ensuring quality school processes. This affects educational quality since student achievement, especially beyond basic skills, depends largely on teachers' command of subject matter (Mullens, Murnance & Willett, 1996) and their ability to use that knowledge to help students learn. Whether a teacher uses traditional or more current methods of instruction, efficient use of school time has a significant impact on student learning. Teachers' presence in the classroom represents the starting point. The highest quality teachers, those most capable of helping their students learn, have deep mastery of both their subject matter and pedagogy (Darling-Hammond, 1997). The preparation that teachers receive before beginning their work in the classroom, however, varies significantly around the world and even within the least developed countries. Teachers are the main key to improving learning. They have a powerful impact on the quality of student learning. However, many countries, particularly the developing countries, are facing an acute shortage of qualified teachers, while serving teachers are paid poorly (and sometimes irregularly) and, because of the scanty qualifications needed to enter, suffer from low social and professional status. The teachers in quality education must put the child in the centre and helps it to reach his or her full potential. Quality Education requires children's active participation and the teacher is leading drive.

C. Frequent Evaluation

Good teachers are skilled not only in instructional methods, but also in evaluation and assessment practices that allow them to gauge individual student learning and adapt activities according to student needs. This process should include both performance

assessment and assessment of factual knowledge. Observations in Guinea and India found that teachers are very poorly trained in evaluation techniques, and the reality is far from the continuous evaluation procedures recommended by official programmes (Carron & Chau, 1996). Indeed, many teachers and educational systems continue to rely almost exclusively on traditional paper-and-pencil tests of factual knowledge that tend to promote rote memorization rather than higher order thinking skills (Colby, 2000). Regular, reliable, timely assessment is a key to improving learning achievement. The goals are to give learners feedback and improve learning and teaching practices. Formative assessment is needed as a complement to formal examinations. How can we provide quality education? A detailed answer to this question is beyond this study; however, the following observations elicited from the review report give direction for quality primary education in our schools. The current state primary school curriculum comprises a commendable mix of areas of knowledge that offer opportunities for the holistic development of individual pupils. The curriculum areas include English, Maltese, mathematics, religion, science and technology, social studies, physical education, expressive arts (drama, art and design, music, movement) and personal and social development. All these areas are important as they cover the multiple intelligences identified by leading educational psychologists (Gardner, 1983).

D. Learner's Support

Parents may not always have the tools and background to support their children's cognitive and psychosocial development throughout their school years. Parents' level of education, for example, has a multifaceted impact on children's ability to learn in school. In one study, children whose parents had primary school education or less were more than three times as likely to have low test scores or grade repetition than children whose parents had at least some secondary schooling (Willms, 2000). Parental education not only influences parent-child interactions related to learning, but also affects parents' income and need for help in the home or field — help that often comes at the expense of keeping children in school (Carron & Chau, 1996). Parents with little formal education may also be less familiar with the language used in the school, limiting their ability to support learning and participate in school-related activities. The effects of schools in poor areas can often outweigh the impact of family background and practices (Willms, 2000). Further, although many constraints exist, schools can play a role in helping parents to enhance the 'home curriculum' and improve the quality of parental involvement in their children's education. Strategies include, for example, partnering with organizations that can affect parenting in the pre-school years such as public health providers and non-governmental organizations (NGOs); asking parents to participate in assessment of their child's progress, offering clear, regular, non-

threatening communication; and including parents in decision-making groups at the school (Redding, 2000). Healthy children with positive early learning experiences and supportive, involved parents are thus most likely to succeed in school. Quality teachers need similar support for their tasks in schools.

E. Friendly Learning Environments

Learning can occur anywhere, but the positive learning outcomes generally sought by educational systems happen in quality learning environments. Learning environments are made up of physical, psychosocial and service delivery elements. Physical learning environments or the places, in which formal learning occurs, range from relatively modern and well-equipped buildings to open-air gathering places. The quality of school facilities seems to have an indirect effect on learning, an effect that is hard to measure. Some authors argue that "*extant empirical evidence is inconclusive as to whether the condition of school buildings is related to higher student achievement after taking into account student's background*" (Fuller, 1999). A study in India, however, sampled 59 schools and found that of these only 49 had buildings and of these, 25 had a toilet, 20 had electricity, 10 had a school library and four had a television (Carron & Chau, 1996). In this case, the quality of the learning environment was strongly correlated with pupils' achievement in Hindi and mathematics (Carron & Chau, 1996). In Latin America, a study that included 50,000 students in grades three and four found that children whose schools lacked classroom materials and had an inadequate library were significantly more likely to show lower test scores and higher grade repetition than those whose schools were well equipped (Willms, 2000). Other studies, carried out in Botswana, Nigeria and Papua New Guinea, concur with these latter findings (Pennycuick, 1993). The quality of school buildings may be related to other school quality issues, such as the presence of adequate instructional materials and textbooks, working conditions for students and teachers, and the ability of teachers to undertake certain instructional approaches. Such factors as on-site availability of lavatories and a clean water supply, classroom maintenance, space and furniture availability all have an impact on the critical learning factor of time on task. When pupils have to leave school and walk significant distances for clean drinking water, for example, they may not always return to class (Miske & Dowd, 1998). Even when schools do have adequate infrastructure, parents may be reluctant to allow children — especially girls — to attend if they are located too far away from children's homes. In general, parents often consider the location and condition of learning environments when assessing school quality and this can influence school participation. Provision of health services and education can contribute to learning first by reducing absenteeism and inattention. Sick children cannot attend school, and evidence from China, Guinea, India and Mexico shows that children's

illness is a primary cause for absenteeism (Carron & Chau, 1996). Today, the potential of school-based health interventions in improving academic performance is becoming increasingly clear as problems of protein energy malnutrition, micronutrient deficiency disorders, helminthes infection and temporary hunger among children continue to plague developing countries (Levinger, 1992). School-based deworming programmes in Guinea, for example, led to increased achievement outcomes — failing scores fell from 32 per cent to 23 per cent over three years while passing grades improved markedly (Williams & Leherr, 1998).

F. Effective school discipline policies

Well-managed schools and classrooms contribute to educational quality. Students, teachers and administrators should agree upon school and classroom rules and policies, and these should be clear and understandable. Order, constructive discipline and reinforcement of positive behaviour communicate a seriousness of purpose to students (Craig, Kraft & du Plessis, 1998). It is important not to mistake small group cooperative learning for disorder, however; although noise levels may increase, task-orientation and focus on learning signal effective practices. Policies are also needed on bullying, harassment, drug and tobacco use, and anti-discrimination with regard to disabilities, HIV/AIDS and pregnancy. Reducing other forms of discrimination is also critical to quality improvement in learning environments.

2. Statement of the Problem

There was strong argument among sub-group of Nigeria populace most especially the employers of labour, educators and researchers concerning the quality of secondary school education in Nigeria and the trust that people have for our secondary school graduates in Nigeria in terms of quality of education of secondary school. Some school of thought believed that there is nothing wrong with quality of secondary school education in Nigeria whereas some other school of thought believed that a lot is wrong with quality of secondary school educational system. And that secondary school leavers or graduate are not employable due to quality of education received by them when in school. As a results of this argument the researcher embark on this study since quality of education received can be measured in world of works in line with this the employers of labour were considered as the respondents to determine the quality of education received by the secondary school graduates in south west, Nigeria.

3. Purpose of the Study

The study is designed to examine the relationship between the educational inputs, process variables and learning outcome on quality of secondary school education in Nigeria. Also, it is meant to highlight both the composite effect and relative contribution of each of these variables on quality of secondary school education in Nigeria.

4. Significance of the Study

Ascertaining the singular and collective relationship between educational inputs, process variables and learning outcome on quality of education of secondary school in Nigeria will challenge respective stakeholders to appropriately maximize the use of these variables to promote quality of education of secondary school in Nigeria. Also, to determining appropriate educational input, process variables and learning outcome and their correct use will go a long way in enhancing secondary school quality education. When this is done: both teachers and students will be satisfied, huge sums of money spent by parents in engaging their children/wards in repeated examinations will stop, and government's primary objective to produce future patriots who are educationally and technologically sound will be easily realized.

5. Research Questions

The following research questions guide the course of this study.

1. Are there significant relationships among the independent variables (curriculum, teachers quality, school friendly environment, evaluation of learners, learners support and learners discipline) and dependent variable (quality of secondary school education?
2. What is the composite contribution of the independent variables to the dependent variable?
3. What is the relative contribution of the independent variables to the dependent variable?

6. Methodology

Descriptive research design of correlational type was employed to investigate the relationship that exists between the educational input, process variables and learning

outcome (predictor variables) and quality of secondary school education (criterion variable). The population for this study consists of the employers of secondary school graduates in various sectors of our economy, the parents of secondary school graduates, teachers and the secondary schools (school facilities and school records). From this population, records on performance in various economic sectors from randomly selected sample of 518 employers of labours were obtained. Research instrument was used to obtain the data from the participants based quality of education received by the learners and the instrument was reliable with reliability coefficient of 0.72 using split half method. On curriculum, teachers quality and evaluation procedure of the students, these three variables are observed from the schools used, using observational technique. Instruments on Learners supports and learners discipline were administered on the parents to obtain data on these two variables. The instrument was divided into three sections. Section A has to do with demographic data while section B was based on learners support and section C was on learners discipline and the instrument was reliable with reliability coefficient of 0.69. All the instruments put together has reliability coefficient of 0.71 using test-re-test method. The sample consisted of 325 males and 193 females. Data were collected from the employers of labour establishments/offices. Data collected were then analyzed using simple correlation and multiple linear regression analysis at $\alpha = 0.05$ level of significance.

7. Results

A. Research Question One

Are there significant relationships among the independent variables (curriculum, teachers' quality, school friendly environment, evaluation of learners, learners support and learners discipline) and dependent variable (quality of secondary school education) among employer of labours in south west, Nigeria?

Table 1: Summary of Test of significant Correlations among Independent Variables and Quality of Secondary School Education in South West Nigeria

Curriculum	1.000						
TrtQuality	0.043	1.000					
SchFriEnv	0.003	0.002	1.000				
Evaluation	0.000	0.022	0.174**	1 .000			
LearnSupp	0.009	0.022	0.127**	0.541	1.000		
LearnDiscip	0.085*	0.051	-0.071*	0.395*	0.546**	1.000	
QualityEdu	0.244*	0.205**	0.286**	0.240**	0.390**	0.264**	1.00

** Correlation Significant at 0.01 * Correlation Significant at 0.05

The results from Table 1 showed that there was a positive and significant relationship between curriculum, teachers' quality, school friendly environment, evaluation of learners, learners support and learners discipline on quality of secondary school education in South west, Nigeria. Quality of secondary school education had significant correlation with curriculum ($r = 0.244$, $p<0.05$), with teachers quality ($r = 0.205$, $p<0.05$), school friendly environment ($r = 0.286$, $p<0.05$), evaluation of learners ($r = 0.240$, $p <0.05$), learners support ($r = 0.390$, $p<0.05$) and learners discipline ($r = 0.264$, $p<0.05$) of the respondents respectively.

B. Research Question Two

To what extent would the joint contribution of the independent variables predict quality of secondary school education among employers of labour in South West, Nigeria?

Table 2: Summary of Regression Analysis of the combined prediction of quality of secondary school education by the six independent variables

R	R Square	Adjusted R Square	Std. Error of the Estimate
0.739	0.553	0.546	11.02166

Summary Regression ANOVA

	Sum of Squares	Df	Mean Square	F	P	Remark
Regression	52835.76	6	8805.96	45.65	0.000	Sig
Residual	98760.76	512	192.89			
Total	151596.52	518				

Table 2 showed that the prediction of all the six independent variables to the dependent variable. That is, quality of secondary school education correlated positively with the six predictor variables. The table also shows a coefficient of multiple correlations (R) of 0.739 and a multiple adjusted R square of 0.546. This means that 54.6% of the variance in the quality of secondary school education is accounted for by all the six predictor variables, when taken together. The joint contribution of the independent variables to the dependent variables was significant ($F = 45.65$; $df = 6$; 512: $p < 0.05$) and that other variables not included in this model may have accounted for the remaining variance.

C. Research Question Three

What is the relative effect of each of the independent variables on quality of secondary school education among employers of labour in South-west, Nigeria?

Table 3: Relative contribution of the independent variables to the dependent variable (Test of significance of the Regression coefficients)

	Unstandardized Coefficients		Standardized coefficients			
	B	**Std. Error**	**Beta**	**T**	**P**	**Remark**
Constant	21.679	3.050		7.107	0.000	Sig
School friendly environment	0.445	0.439	0.031	5.696	0.035	Sig
Curriculum	0.544	0.074	0.072	7.692	0.018	Sig
Teachers Quality	0.531	0.071	0.274	12.767	0.000	Sig
Evaluation of learners	0.405	0.078	0.212	3.924	0.000	Sig
Learners discipline	0.107	0.064	0.189	1.987	0.050	Sig
Learners support	0.176	0.075	0.035	2.369	0.003	Sig

Table 3 reveals the relative contribution of the six independent variables to the dependent variable, expressed as beta weights. The positive value of the effects of the six independent variables is actually determined by positive reinforcement of these six variables. Using the standardized regression coefficient to determine the relative contributions of the independent variables to the explanation of the dependent variable curriculum made the most significant relative contribution to the prediction of quality of secondary school education (B=0.544, t=7.692, $p<0.05$); followed by teachers quality (B=0.531, t=12.767, $p<0.05$); school friendly environment (B=0.445, t=5.696, $p<0.05$), followed by teachers evaluation procedures (B=0.405, t=3.924, $p<0.05$), followed by learners support (B= 0.176, t=2.369, $p<0.05$), and finally followed by learners discipline (B = 0.107, t =1.987, $p<0.05$) in that order among the employers of labour in south west, Nigeria.

8. Discussion of the Findings

Research question one was on relationship between independent variables and dependent variable. The results shown in Table 1 revealed that there was significant correlation between independent variables and dependent variable. There was significantly positive correlation between quality of secondary school education and the

independent variables. The finding of the study supported Glatthorn & Jailall (2000) they found significant positive relationship between curriculum and quality of secondary school education. In related vein, Redding (2000) also found significant correlation between quality of secondary school education and quality of teachers. Carron & Chau, (1996) corroborating with the above findings demonstrated that a significant relationship exited between school friendly environment and quality of secondary school education.

The result in relation to research question 2 shows that, the relative contribution of each of these independent variables on quality of secondary school education among the secondary school students in the study, the curriculum made the most significant relative contribution to the prediction of quality of secondary school education followed by teachers quality; school friendly environment, followed by teachers evaluation procedures and then, learners support and finally followed by learners support in that order. This shows that curriculum as a factor appear as the most potent contributor to quality of secondary school education. This means that input factors of the curriculum and process variables are most important than any other factors in predicting the quality of secondary school education of the participants. This finding corroborate Willms 2000) and Fuller (1999) who discovered that, curriculum, teachers quality, school friendly environment, learners support, learners discipline and evaluation of learners factors have significant impact on quality of secondary school education. Also, this finding is in line with the finding of Craig, Kraft & du Plessis (1998) who found that curriculum as a factor is more significant in predicting quality of secondary school education in Nigeria.

9. Conclusion

Considering the findings of this study, it was concluded that there was significant relationship between the independent variables and the dependent variable. The finding of the study shows that there was joint effect of the independent variables on the dependent variable. This suggests that independent variables are critical variables that determine quality of secondary school education. The independent variables relatively contributed to the variation of quality of secondary school education. The significant relationship between the independent variables and the dependent variable implies that these variables enrich the tendency of stakeholders to improve quality of secondary school education. Curriculum has shown to have the most potent significant effect on the quality of secondary school education.

10. Recommendations

Based on the findings of this study the following recommendations were made that parents should stay together with their children to ensure that their welfare is properly catered for and should try to support the children in promoting quality education. Government should provide free and compulsory education to children without social family support and help the less privileged parents with financial support by empowering them. In addition government should provide basic learning infrastructures to enhance quality education. Public enlightenment on issues of parental skills, family planning, family values and child discipline could be done regularly, as this would make for an intact family and enhance quality education since it will go a long way to allow children to be attentive in the classroom while learning. Teachers should be told to adopt pedagogy that will promote understanding of curriculum content and that learners should be evaluated from time to time.

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