Implementation of Basic Science and Technology Curriculum Content and Relevance to Upper Basic Students in the COVID–19 Era in Owerri, Imo State

[1]Obasedo R. A, [2]Dr. T. M. Udofia and Ibe C. O
[1] Integrated Science Department,
Alvan Ikoku Federal College of Education
Owerri, Imo State Nigeria
[2] Science Education Department
University of Uyo, Uyo, Nigeria
[3] Chemistry Department,
Alvan Ikoku Federal College of Education
Owerri, Imo State

Abstract
This study investigated the Implementation of Basic Science and Technology curriculum content and relevance to Upper Basic Students in the COVID -19 Era in Owerri, Imo State. Three research questions and one hypothesis were formulated to guide the study. The descriptive survey design was employed. Purposive sampling technique was used to select 40 Basic Science and Technology Teachers in 32 secondary schools, out 108 public secondary schools in Owerri Educational Zones. Questionnaire was used to collect data for the study, the instrument was validated with reliability index obtained as 0.75, mean and standard deviation were used to answer research questions and t- test statistic was used to test the hypothesis at 0.05 level of significance. The study showed: to a moderate extent Basic Science and Technology curriculum contents for Upper Basic Students has been implemented by the teachers, There was no significant difference between Urban and Rural Teachers in Basic Science and Technology curriculum content implementation and teachers viewed the curriculum content as relevance to meet the need and aspirations of Upper Basic Students in the COVID- 19 Era. Based on the findings recommendations were made, that, there is urgent need for relevant Basic Science and Technology text books and work books in schools book shop, for easy accessibility at both urban and rural secondary schools among other recommendations.

Key words: Basic Science and Technology, Curriculum Implementation, Content and
Relevance

Introduction

Education is an indispensable tool for impregnable living, it is a tool that transforms and develops citizen for national advancement. Education is one of the fundamental human rights declared by the United Nations organization in 1948, and in the 1999 constitution of the Federal Republic of Nigeria. To enforce this right, Nigerian as part of the global deliberations on Education for All reflected her responsibility via: National Education Policies (NEP), launched the Universal Basic Education (UBE) program in 1999, the

Millennium Development Goals (MDGs) 2020, adopted an agenda known as National Economic Empowerment and Development Strategy (NEEDS) 2004, and presently the Sustainable Development Goals (SDGs) vision 2030.

The National Economic Empowerment and Development Strategies (NEEDS) introduced the 9-year basic education program. Meanwhile, the Universal Basic Education Commission (UBEC) in 2006 sees Universal Basic Education as an educational reform program of the Nigeria government that provides free, compulsory and continuous Nine - year education in two levels; six years of primary education (lower and middle basic education) and three years of Junior secondary education (upper basic education) for all school- age children. The program transmits knowledge to the child through a well-planned subjects' curriculum which Basic Science and Technology curriculum subject forms an integral parts of the program. This curriculum was developed by the Nigeria Education Research and Development Council (NERDC) in 2012 revised.

Every nation sets out an educational plan to achieve the goals of providing quality and relevant education for its citizen's. Such plan that spells out the total learning process which brings about learning for a group of learners, and for which the school system takes responsibility is called curriculum (Eronosho, 2008). Curriculum is a written document that sum up all the activities, experiences and learning opportunities that an educational system has to offer to its learners to prepare them for future roles in the society. Curriculum development process involves: planning, content and methods, implementation, evaluation and reporting. Curriculum implementation refers to the content development process, it deals with finding, producing and evaluating existing materials for the newly developed curriculum content. One of such curriculum material is Basic Science and Technology content which this study is delimited. Chukwuneke and Chikwere (2012) Basic Science and Technology curriculum content was introduced in response to the reform in science education in secondary school.

Generally, when program content is reformed, some data related to the program are collected analysed and interpreted, so that, decision regarding the program is made.in term of program improvement, re-planning, and personnel improvement among others. To meet the immediate need of the citizen

Content components of curriculum refers to the important, facts, principles and concepts to be taught, it can be in form of knowledge, skills, attitude and values that students are exposed to. The systematic and logical manner with which a teacher uses to deliver curriculum content to students is called, curriculum implementation. Thus, Basic Science and Technology curriculum content implementation refers to how teacher deliver instruction through the use of specified resources provided in the curriculum. It involved the teacher to help students developed and engaged relationship with the subject contents.

On the other hand, Basic Science and Technology curriculum relevance is the application and appropriateness of the curriculum to meet the needs, interest, aspirations and

expectation of students and society in general. It is the learning experience of students that are connected to real-world, issues, problems and contexts.

The current Basic Science and Technology Curriculum designed by the Nigeria Education Research and Development Council in 2012 revised. Could be said to be carefully planned, well written and documented having all its entails to bring socio- economic development. However the workability of the curriculum depends on its effective delivery which includes: students, teacher, resources, methods of teaching, and evaluation as well as the physical and psychological environment which must be adequate and conducive for learning to take place.

No meaningful learning could take place in an overcrowded classroom. Oyesola (2000) noted that, the provision of classroom block plays a major role in the implementation of Basic Science and Technology goals because the discipline is an activity oriented subject. Thus, the question is what type of activity is expected to take place in a learning class of 70-80 students? This is observed in most secondary schools in Nigeria. Oyesola (2000) reported that, curriculum implementation could never be at the classroom level but on paper, the success of Basic Science and Technology program largely depend on fund. Therefore, with the present inadequate provision of funds for science program, the implementation of Basic Science and Technology curriculum is just like chasing a mirage. Oyesola 2000 noted that, there is no meaningful strategy for generating enough funds to ensure that Basic Science and Technology facilities needed for the workability of the curriculum content is in significance quality, this has pose threat to achieve the goals of the curriculum.

Again, the psychological threat pose by Corona Virus (COVID -19) pandemics in the present educational setting cannot be over stated, since the outbreak in December 2019 at Wuhan in China. The World Health Organization (WHO) declared the outbreak public health emergency of international concern on 30th January and a pandemic on 11th March 2020 (Education Wikipedia, 2020). Corona virus is spread majorly through nose and mouth secretions of thin droplets released by coughing, sneezing and talking. Thus, schools in Nigeria and other parts of the world were under key and lock for about eighteen months in the year (2020- 2021) with the caution of social distancing among other measures to prevent the pandemic. Therefore, there has being tremendous change in the society based on Information Communication Technology (ICT) which bring the world to a global village. These crises have caught up with the educational manpower of the developing and under develop nations, as they did not foresee the hand written of the ongoing COVID-19 pandemic issues on the wall. As such, no prior preparations to digitally deliver Basic Science and Technology curriculum content to students.

However, the "acceleration" of history through COIVD- 19 pandemic has both threat and opportunity to teaching professions. The threat is that; teachers are ill-prepared technologically. On the other hand, the opportunity is that teachers could easily translate content through Information Communication Technology to deliver Basic Science and Technology content using sophisticated approaches that is student centered. Thus, this

present situation has created a shift in the way: students function, teachers and students relate to one another, societal function, the way community and nations relate to one another in other to acquire education with safety consciousness.

Investigation by kukwi and Eggrari (2014) on the implementation of Basic Science program in Nasarawa West Zone, to find out whether curriculum content of Basic Science and Technology program is taught to students as specified, the teaching methods and the performance of students in Basic Science program in Junior Secondary School Certificate Examination (JSSCE) in the State. The result of the study revealed that Basic Science and Technology in Nasarawa are being implemented to a large extent. Facilities available for the implementation are not adequate and there is a significant difference in perception of rural and urban teachers on the extent of the implementation of Basic Science and Technology curriculum content in Nasarawa State. The Zone has enough qualified teachers that can enhance the implementation. It has been proved that facilities available for the programme are inadequate and underutilized, lecture method, discussion method; group investigation field trip/ excursion, guided discovery and cooperative method are the method of teaching commonly adopted by the teachers.

Adarika and Oluwatayo (2013) Reported that students are seldom confronted with first- hand concrete experience which could allow them perceives relationship predict events and draw conclusion. Basic Science and Technology teachers use the conventional method of teaching which have been found to be deficient in enhancing learning and achieving the objectives of Basic Science and Technology curriculum. Teachers rely mainly on lecture method of teaching due to lack of adequate equipment and materials for practical work and also as a result of the fact that most teachers do not know how to use the available equipment/materials for practical work.

Study by Olutunmilola (2012) on the implementation of Basic Science and Technology curriculum, component of Universal Basic Education programme in South-West, Nigeria. The progamme objectives were rated as very good, infrastructural facilities and student's achievement in Basic Science and Technology were available. Most teachers of Basic Science were not professionally qualified to teach the subject and many teachers prefer to use lecture method to other methods. Availability of text infrastructural requirement and manpower contribute positively to students learning outcomes in Basic Science and Technology. Basic Science and Technology curriculum component of the Basic Education programme was not well implemented because the right personnel were not engaged in its implementation.

There is need to assess the implementation of Basic Science and Technology programme after almost fifteen years of its establishment, as stressed by (Ajaja ,2009; Balasa and Ballo 2008). It is evident that the implementation of Basic Science and Technology programme in most Upper Basic schools in Nigeria may be unsatisfactory. The situation in Imo State may not be exceptional.

Obasedo, etal (2021) investigated instructional assessment of students in Basic Science and Technology in this Era of COVID-19 pandemic, in Owerri Educational Zone Imo State. This study showed that; Basic Science and Technology Teachers in urban school location do not always use online assessment tools during instruction while, teacher in rural school location always used online assessment tools during instruction. Therefore, this study considers school location as a moderating variable.

It is upon these backdrops, the researchers seek to investigate implementation of Basic Science and Technology curriculum content and relevance to Upper Basic Students in this COVID -19 Era in Owerri, Imo State, Nigeria.

Statement of the Problem

There is need to assess the implementation of Basic Science and Technology programme after almost sixteen years of its establishment at various state in the country because when curriculum programme is assessed it lead to programme improvement, programme re-planning and personnel improvement. From the forgoing, there is evident that the implementation of Basic Science and Technology programme in most Upper Basic schools in Nigeria may be unsatisfactory. The situation in Imo State may not be exceptional. Hence, the need for constant assessment of the implementation of Basic Science and Technology progrramme cannot be over emphasized, to ascertain the program has achieved its goals and if the programme is not develop appropriately.

Thus, the big question is; how relevant is the NERDC curriculum contents of Basic Science and Technology to Upper Basic Students in this COVID-19 Era? And how well has it been implemented this period of COVID-19? In view of these, this study assesses the implementation of Basic Science and Technology curriculum content and relevance to Upper Basic Students in this COVID -19 Era in Owerri, Imo State, Nigeria.

Significance of the Study

The findings of this study are significance to: teacher training institutions, the teachers, curriculum designers, school administrators, government, and researches in related study.

Research Questions

The following research questions guided this study

1. To what extent Basic Science and Technology Curriculum contents to Upper Basic Students has been implemented by Teachers in the COVID -19 Era in Owerri Educational Zone?
2. To what extent is their difference between Basic Science and Technology Content Implementation in the Urban and Rural schools by the teachers in the COVID -19 Era in Owerri Educational Zone?

3. To what extent Teachers' views Basic Science and Technology curriculum content relevance to Upper Basic Students in the COVID -19 Era in Owerri Educational Zone?

Null Hypothesis

Ho$_1$: There is no significant difference between Basic Science and Technology curriculum content Implementation in the Urban and Rural schools by the teachers in the COVID -19 Era in Owerri Educational Zone

Methodology

Descriptive survey design was used for this study. The design is considered appropriate for this study because information was solicited from population of Basic Science and Technology teachers on the extent of the content implementation and relevant of the curriculum at the Upper Basic Education for the realization of the Basic Science and Technology Curriculum content reform in Nigeria, with specific reference to Owerri Educational Zones, Imo State in the COVID-19 Era. This study consist of all the 108 Public Secondary Schools with 135 Basic and Technology Teachers in Owerri Educational Zones (Statistics from the Respective Local Government Areas, 2015) Purposive sampling technique was used to select sample for the study. The Urban and Rural LGAs with the highest numbers of Basic Science and Technology teachers was purposefully chosen for this study, for better representation of teachers along school location. Thus, Owerri North LGA which is a semi urbanized school location has 25 teachers of 13 secondary schools and Mbaitoli LGA which is a rural school location has 16 teachers of 19 secondary schools. Therefore, the target population was 41 Basic Science and Technology Teachers from 32 Secondary Schools.

One instrument was developed by the researchers called Implementation and Relevance of Basic Science and Technology Content Questionnaire (IRBSTCQ) for the teachers to explicit response. It was a four points rating scale questions of: High Extent 4 points, Moderate Extent 3 points, Low Extent 2 points and Very Low Extent 1point in Research question 1. While, Research question 3 scales was: Very Relevant 4 points, Just Relevant 3points, Low Relevant 2 points, and Very Low Relevant 1 point. The IRBSTCQ instrument was subjected to face and content validity by three experts; Curriculum design expert, Science Education lecturer and, Measurement and Evaluation experts in Imo State University.

The instrument was trial tested using test- retest reliability method by administering the questionnaires to 10 Basic Science and Technology Teachers who did not participate in the study and after three weeks the same instrument was re-administered to the same teacher

to explicit response. Thus, first and second responses of the instrument were compared, using Spearman Moment Correlation Coefficient of data analysis, to obtain 0.75 reliability index

Method of Data Analysis

The data collected where analyzed using the Statistical Package for Social Science (SPSS) to determine data: Frequency, Percentage, Mean and Standard Deviation scores, to answer Research questions 1-3 using the cutoff mean score point scale range below:

3.50 - 4.00 - High Extent
2.00 - 3.49 - Moderate Extent
1.50 - 2.49 - Low Extent
1.00 - 1.49 - Very Low Extent

While the Null hypothesis was tested using t - test, at 0.05 level of significant.
The null hypothesis was rejected or not rejected base on the following rules:

1. If t-calculated is less than t-critical at 0.05 significance level, the null hypothesis was accepted.
2. If t-calculated is greater than t-critical at 0.05 significance level, the null hypothesis was rejected.

Result of Research Questions

Research Question 1: To what extent Basic Science and Technology Curriculum Contents for

Upper Basic Students has been implemented by the Teacher in the COVID -19 Era in Owerri Educational Zone?

Table I: Teachers' Responses on Extent of Basic Science and Technology Curriculum Content Implementation

S/N	Content Implementation	Mean	Standard Deviation	Remark
1	Are there Relevant Text Books from science authors to teach BS& T content?	3.22	.83	Moderate Extent
2	Are the Text Books and Work Books Adequate in the book shops and markets?	3.02	.83	Moderate Extent
3	Are the Books and Work Books easily Accessible in your school?	2.85	.92	Moderate Extent
4	Is the BS&T Curriculum available to all Teachers in your school?	2.92	1.16	Moderate Extent

5	Do Teachers use Methods of teaching prescribed by curriculum planners for each topic contents in your school?	2.95	.98	Moderate Extent
6	Do Teachers use Instructional resources prescribed by curriculum planners for each topic contents in your school?	2.95	1.08	Moderate Extent
7	Single Teacher handles Basic Science, Basic Technology, Computer Science, Physical and Health Education.	3.00	1.05	Moderate Extent
	Grand Mean	2.99	0.97	**Moderate Extent**

Table I shows that, teachers rated the item on Basic Science and Technology Content Implementation 1, 2, 3, 4, 5, 6 and 7 as Moderate Extent. The grand total of Content Implementation was 2.99 at 0.97 Standard Deviation. Thus, Basic Science and Technology Content Implementation in Owerri Educational Zone was to a Moderate Extent Implemented the COVID- 19 Era.

Research Question 2: To what extent is the difference between Basic Science and Technology
Content Implementation in the Urban and Rural schools by the Teachers in the COVID-19 Era
in Owerri Educational Zone?

Table 2: Response of Teachers' in the Urban and Rural School Location on Extent of Basic Science and Technology Curriculum Content Implementation

		Urban School		Rural School		
S/N	Content	Mean	Standard Deviation	Mean	Standard Deviation	Remark
1	Are there Relevant Text Books from science authors to teach BS& T content?	3.7	3.26	3.14	.94	Moderate Extent
2	Are the Text Books and Work Books Adequate in the book shops and markets?	3.03	.82	3.0	.87	Moderate Extent
3	Are the Books and Work Books easily Accessible in	2.94	.72	2. 6	1.16	Moderate Extent

your school?

4	Is the BS&T curriculum available to all Teachers in your school?	3.11	1.03	2.85	1.23	Moderate Extent
5	Do Teachers use the methods of teaching the content prescribed by the curriculum planners for each topic contents in your school?	2.96	1.14	3.00	.95	Moderate Extent
6	Do Teachers use the Instructional Resources prescribed by the curriculum planners for each topic contents in your school?	3.19	.98	2.50	1.16	Moderate Extent
7	Single Teacher handles Basic Science, Basic Technology, Computer Science , Physical and Health Education	3.11	.95	2.78	1.18	Moderate Extent
	Grand Mean	3.08	0.91	2.86	1.07	**Moderate Extent**

Table 2 shows, urban and rural school location teachers rated the item on Basic Science and Technology content implementation 1, 2, 3, 4, 5, 6 and 7 as Moderate Extent. The grand mean of urban content implementation was 3.08 at 0.97 Standard Deviation while, the rural school location mean score was 2.86 at 1.07 Standard Deviation. Thus, Basic Science and Technology curriculum content implementation in the urban and rural school location in Owerri Educational Zones were to a Moderate Extent implemented the COVID-19 Era.

Research Question 3: To what extent Basic Science and Technology teachers' views curriculum content relevant for Upper Basic Students in the COVID -19 Era in Owerri Education Zones

Table 3: Teachers' Responses to Content Relevance for Upper Basic Students in this COVID – 19 Era

S/N	Content Relevant	Mean	Standard Deviation	Remark
1	Learning about your environment	3.32	1.02	Relevant
2	Science and development	3.27	1.15	Relevant

3	Understanding basic technology	3.20	1.01	Relevant
4	Safety	2.95	1.01	Relevant
5	Material and processing	3.22	.91	Relevant
6	Drawing practice	3.30	.79	Relevant
7	Tools, machines and processes	3.15	1.14	Relevant
8	Basic human movement	2.90	1.19	Relevant
9	Sports and games	2.72	1.21	Relevant
10	Health education	2.97	1.12	Relevant
11	Basic computer operator concepts	3.07	1.09	Relevant
12	Basic knowledge of information technology	2.87	1.18	Relevant
13	You a1nd energy	3.12	1.04	Relevant
14	Computer application packages	3.05	1.03	Relevant
15	Contact and non- contact games	3.02	1.02	Relevant
	Grand Mean	3.07	1.07	**Relevant**

Table 3 shows that teachers rated the item on Basic Science and Technology content relevant from 1 to 15 as Relevant, the grand mean of content relevant was 3.07 at 1.07 Standard Deviation, thus teachers view Basic Science and Technology curriculum content as relevant to students, in the COVID- 19 Era in Owerri Educational Zone.

Result of Null Hypothesis

Ho₁: There is no significant difference between Basic Science and Technology content implementation in the Urban and Rural schools by the teachers in the COVID -19 Era in Owerri Educational Zone

Table 4: Result of significant difference between Basic Science and Technology Content Implementation in Urban and Rural schools location by the teachers

School Location	Mean	S.D	N	D.F	t-cal.	t–crit.	Sig.	Decision
Urban	3.08	0.91	26					**Not Significant**
Rural	2.86	1.07	14	6	1.00	1.94	0.05	

Table 4 shows that, the implemented of Basic Science and Technology Content in Urban and Rural school location by teachers in Owerri Educational Zone, with t- cal. as 1.00

< t- crit. 1.94 at 0.05 level of significant. This means, there is no significant difference between Basic Science and Technology content Implementation in the urban and rural school location by teachers. Therefore, the null hypothesis is retained.

Summary of Major Findings
1. Basic Science and Technology curriculum content implementation in Owerri Educational Zone was to a Moderate Extent implemented
2. Basic Science and Technology curriculum content implementation in the urban and rural school location in Owerri Educational Zones were to a Moderate Extent implemented in the COVID- 19 Era.
3. Teachers view Basic Science and Technology curriculum content as relevant to students, in the COVID- 19 Era in Owerri Educational Zone.
4. There was no significant difference between Basic Science and Technology content Implementation in the urban and rural school location by teachers.

Discussion of Findings

This study investigated the Implementation of Basic Science and Technology curriculum content and relevance to Upper Basic Students in the COVID -19 Era in Owerri, Imo State Nigeria. Findings in Table1 showed that, Basic Science and Technology curriculum content implementation were to a Moderate Extent Implemented. This finding is not in line with kukwi and Eggrari (2014) investigation that, Basic Science and Technology in Nasarawa are being implemented to a Large Extent. The moderate Extent observed in the curriculum content implementation may be as a result of: the Pandemics, most teachers do not use Information Communication Technology (ICT) enabling learning and the provisions of such ICT materials are not available in most of the secondary schools.

Finding in Table 2 showed that, Basic Science and Technology content implementation in urban and rural school location were implemented to a Moderate Extent. The finding disagrees with kukwi and Eggrari (2014) that their exist difference in the perception of rural and urban teachers in the extent of content implementation of Basic Science and Technology curriculum in Nasarawa State. The Moderate Extent observed in the urban and rural school location toward the implementation in Basic Science and Technology curriculum content could be as a result of no provision for instructional materials to facilitate learning during the COVID-19 Era. More so, most teachers do not understand the philosophy and goals of the curriculum to raise their passion and commitment of their duty.

Finding in Table 3 showed that, Basic Science and Technology curriculum content is relevant to students in Owerri Educational Zone in the COVID- 19 Era. The finding agrees with Olutunmilola (2012) investigation that, Basic Science and Technology objectives were rated as very good, and students' achievement in Basic Science and Technology were rated very well. The observed relevant of Basic science and Technology in the COIVD-19 Era is as a result of the carefully planned need assessment of Nigerian students made by the NERDC during the curriculum content reform and design to stand the test of time.

Finding in Table 4 showed that, there is no significant difference between Basic Science and Technology content Implementation in the urban and rural school location by teachers. This finding disagrees with kukwi and Eggrari (2014) that, there is a significant difference in the perception of rural and urban teachers on extent of content implementation in Basic Science and Technology curriculum in Nasarawa State. The observed no significance difference in school location toward the Basic Science and Technology content implementation may be as a result of: non-accessibility to relevant Basic Science and Technology text books, most teachers do not use the instructional resources and methods prescribed by the curriculum planners for each topic.

Conclusion

Base on the findings it was concluded that, to a moderate extent Basic Science and Technology curriculum content at the Upper Basic Education level in schools, is implementation. Content implementation by the teachers at urban and rural school location was implemented to a moderate extent. However, there was no significant difference between school locations in the curriculum content implementation. Teachers' perception of Basic Science and Technology curriculum content relevant to students was rated relevant in the COVID- 19 Era.

Recommendations

In view of the findings, recommendations were made:

1. Urgent need for relevant Basic science and technology text books and work books in schools book shop for easy accessibility at both urban and rural secondary schools
2. There should be provision of Basic Science and Technology curriculum available to all teachers in school. Especially in the rural school locations
3. Teachers should be guided to use prescribed instructional method for each topic in the curriculum through carefully planned workshop.
4. There is urgent need for subject specialist teacher's base on: Basic Science, Basic Technology, Computer Science, Physical and Health Education to be posted to the urban and rural areas of Imo State.

References

Adirika B.N. & Oluwatoyo G. K. (2013). The Nigerian universal basic education programe: the status and way forward. *Research Journal in organizational psychology and educational studies* 2 (6) 325-332.

Ajaja, O. P (2009). Science teaching evaluated in Nigeria secondary schools: the state of resource materials in Delta State. *International Journal of Research in education,* 5(1 &2), 190- 200.

Balasa, M. M., & Ballo, M. (2008). Towards authenticating assessment in science in Nigerian schools. In N.A. Udofia (ed.) 49th Annual conference proceeding *STAN on curriculum development in science technology and mathematics education.*

Chukwuneke, B. U., & Chikwenze, A.R. (2012). The extent of implementation of universal basic education program in Nigeria focus on basic science and curriculum. /*Journal of Research and development*, 4 (1) 116-126

Education COVID -19 (2020). COVID -19 pandemic *Wikipedia en.eikipedia. org* .Retrieved on 3rd September, 2020

Erinosho, S. Y. (2008). "*Classroom Assessment of learning" teaching science in secondary school a methodology handbook*, African culture institute centre Ketu Lagos, Nigeria 9p.

Kukwi, I. J., & Gggari, S. O. (2014). Assessment of the implementation of Basic science programme in junior secondary school in junior secondary school in Nasarawa west zone.

NERDC (Nigerian Education Research and Development Council) (2012). NERDC printing press. Yaba lagos.

Obasedo, R.A., Nwaka, B. U. & Nwaeze, E.U (2021). Instructional assessment of students in basic science and technology in the era of covid-19 pandemic in Owerri educational zones in Imo state. *Premier Journal of Education* 5(1): 179

Olutunmilola T. O. (2012). Evaluation of the Implementation of Basic Science curriculum Component of the Universal Basic Education programe in South- West-Nigeria. from htt/ir.library. ui edu. na > bitstre>file. Retrieved Jan 3rd 2020

Onyesola G.O. (2000). *Physical Facilities on Productivity in Education.* Nigerian Lagos Press.

UBEC (Universal Basic Education Council) (2006). *National Summary of 2008 Basic Education statistics*. Abuja Planning, Research and statistics Development.