Managing Secondary Schools for Effective Learning: A Look at Specific Objective Statements in Lesson Plans

By

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Abstract

Education must go beyond the mastery of the basic skills of reading, writing and mathematics in order to prepare and equip citizens for today's global challenges. Skills in critical thinking and creativity have been identified as core for survival and the development of complex systems to drive an economy. Everyone must be taught to observe, critically analyse, weigh evidence and solve problems. Thus long term educational goals and pedagogy have to be repositioned to address these needs. Following the classifications of Bloom's taxonomy, this study analysed statements of lesson objectives in three core subjects: Mathematics, English and Civics in 5 private and 5 public senior secondary schools in Port Harcourt LGA, Rivers State. Learning categories of "Remembering", "Understanding" and "Applying" were studied under lower order learning, while "Analysing", "Evaluating" and "Creating" were of the higher order. The study revealed very high percentage (up to 86%) usage of lower order learning verbs in statements of specific objectives of lesson plans. The implication of this finding is that learning at this level will be predominately by rote memory. This will not facilitate critical and analytical thinking skills needed for survival and sustainable development in this century. The study recommends among others that school administrators who are the instructional

leaders should ensure that lessons provide more opportunities for higher order learnings during class engagements.

Keywords: Managing schools, Effective Learning, Specific Objectives, Lesson Plans and Learning Categories.

Introduction

In the process of preparing for the Graduate Records Examination (GRE), which is part of the admission requirement for a post graduate programme into American universities, I was challenged at how much critical thinking and analytical reasoning skills were required to complete the tasks on the test items. I had lots of struggles going through the tasks with very little success. It was at that point I realised that this pattern of having deep thoughts about and critically analysing information was not something that I did very often. Once in a while, I could give deep thoughts to an idea or a situation. But as a regular task, I was much more acquainted with scanning through information without giving it much thought. As I reflected on my earlier educational experiences; all of which had been in Nigeria, I realised that teaching to develop analytical thinking skills, inducing a querying and a critical reasoning mind, at least from my experience, is not something that is common place in the Nigerian Educational system, at least at the first two levels.

These considerations stirred my curiosity to consider investigating what exactly happens during actual class engagements. What learning outcomes do Nigerian teachers actually aim at achieving during classroom engagements at the secondary school level? I reasoned that the statements of specific objectives in lesson plans could be a major pointer to what teachers actually aim at in the classrooms. Thus the idea of studying closely the statements of specific objectives in teachers' lesson plans became very appealing. After all, these statements are the major pointers to what every teacher plans for students to achieve at the end of each learning period. Furthermore, specific objectives when properly stated and followed

through, should naturally lead to the overall objectives of a subject or an educational programme. Thus the goals or aims of educational programmes can easily be pieced together from the statements of specific objectives of individual teachers' daily lesson plans, at least at the primarily and secondary school levels.

Individual schools' visions and missions' statements are another level of goals which require the careful selection and organization of learning experiences to ensure success. It is not uncommon for schools to have visions of what they want for their students. School vision, according to Lunenburg and Irby (2006) contain the core beliefs of the school, its ideal and the goals they aspire to. Lynch and Wolcott (2001), added that it is common to find mission statements of educational programmes or schools carrying phrases like; "develop skills for life-long learning", "critical thinking", "practical problem solving skills", "inquiry discovery skills", "scientific methods", etc. This level of goals is also reflected in nation-wide educational policies. An example of this can be seen in the phrases used in some of the purposes of the levels of education found in the Nigerian National Policy on Education, Federal Government of Nigeria (FGN, 2014) which reads:

> **Section 2**: **Early Childhood/Pre-primary Education**
> Item 13(e) inculcate in the child the spirit of enquiry and creativity through the exploration of nature, the environment, art, music, and playing with toys, etc.;
> **Section 4: Primary Education**
> Item 18(b) lay a sound basis for scientific and reflective thinking;
> **Section 5**: **Secondary Education**
> Item 22(g) raise a generation of people who can think for themselves, respect the views and feelings of others, respect the dignity of labour,

> appreciate those values specified under broad national goals and live as good citizens;
> **Section 7: Science, Technical and Vocational Education**
> Item 39b (i) cultivate inquiring, knowing and rational mind for the conduct of a good life and democracy;
> **Section 8: Tertiary Education (Sub-section B, Teacher Education)**
> Item 71(b) encourage further the spirit of enquiry and creativity in teachers; p. 11, 14, 18, 29 & 39

These are laudable goals reflecting the needs of a country that is laying a foundation for scientific and technological advancements. To attain these ambitious goals, the educational system has to be challenged to do more than commonplace things, because these goals cannot be attained with learning tasks that require only simple recall types of learning processes or learning by rote. Thus presenting daily learning engagements/activities to students that focus on simple recall of facts, knowledge and ideas, may not lead to the achievement of the categories of overall objectives listed in the sections of the policy referred to above. Their attainment will require complex learning experiences that address all categories and domains of learning. This study is therefore aimed at closely examining the specific objectives in the lesson plans of teachers in senior secondary schools.

Bloom's Taxonomy of Educational Objectives is one of the most widely used methods of organizing levels of expertise in learning (Bloom & Krathwohl, 1956, Bloom, Hastings & Madaus, 1981, and Gronlund, 1991). Benjamin Bloom is known to have headed a group of educational psychologists who developed a classification of levels of intellectual behaviour important in learning. This according to Clark (2014), created a way of thinking about planning and structuring teaching and learning.

There are three taxonomies together and each of them is made up of a multi-tiered scale used to express the level of expertise required to achieve each measureable student outcome. There are knowledge-based goals which measure the cognitive domain, skills-based goals which deals with psychomotor domain, and affective goals which measure how the subject matter affects the student's values, attitudes, or interests. The choice of which of the three goal types to be utilized as measurable student outcomes, depends upon the original goals of the course, subject or programme.

Within each taxonomy, levels of expertise are listed in order of increasing complexity. Bloom et al identified six levels within the knowledge based goals as:

Knowledge level: This has to do with the ability to recall facts and basic concepts. It is regarded as the lowest level of learning. Examples of verbs used for this level of learning include define, list, memorise, repeat, state, tell, name, recall, spell, underline, label, match, etc.

Comprehension level: This has to do with the ability to explain ideas or concepts. Commonly used verbs for this level are classify, describe, discuss, explain, identify, locate, recognize, report, select, translate, etc.

Application level: This tests the ability to use information in new situations. Common verbs for this level are execute, implement, solve, use, demonstrate, interpret, operate, schedule, sketch, etc.

Analysis: This is the ability to separate complex ideas into constituent parts and an understanding of the organization and relationship between the parts. Thus the ability to draw connections among ideas are measured here. Commonly used verbs are to differentiate, organize, relate, compare, contrast, distinguish, examine, experiment, question, test, infer, specify, etc.

Synthesis: This is the ability to be creative, constructing mental ideas and concepts from multiple sources to form complex ideas into a new, integrated, and meaningful pattern subject to given constraints thus producing something new from the original work. Verbs commonly used are design, assemble, construct, conjecture, develop, formulate, author, investigate, etc.

Evaluation: This has to do with making a judgment of ideas or methods using external evidence or self-selected criteria substantiated by observations or informed rationalizations. Thus this level of learning justifies a stand or decision. Commonly used verbs are to appraise, argue, defend, judge, select, support, value, critique, weigh, etc.

Bloom's Taxonomy is a very convenient way to describe the degree to which students should understand and use concepts, demonstrate particular skills, or have their values, attitudes, and interests affected. The version revised by Kratwohl and Anderson in Clark (2015) is used in this study which identifies the categories as Remembering, Understanding, Applying, Analysing, Evaluating and Creating. Bloom's taxonomy of learning is used as the theoretical framework for this study and forms the basis for linking particular usage of selected verbs to classify learning into lower and higher orders.

Critical thinking on the other hand according to Facione (2011), means good thinking and almost the opposite of illogical and irrational thinking. It means being reflective in ones thinking. Thus instead of rushing to make decisions or conclusions, one meditates and makes mental comparisons before choosing a course of action. The aim of critical thinking is to promote independent thinking, personal autonomy and reasoned judgment in thought and action among students. The students have to be deliberately taught how to reason and also to develop the disposition to do so as a way of life. One is not involved in critical thinking when a person or group of

persons decide important matters without pausing first to think things through.

Investing in the future work force has become the major thrust in human resource development in this century. This is because effective educated work force which consist of wiser thinkers and decision makers consistently displays more skills. Lamenting about the situation in some schools, Brooks and Brooks (1993) and Wagner (2011) have explained that most schools (both primary and secondary) do not teach students to think critically. When people are taught to make wise decisions, they are equipped to improve their own futures and better positioned to become contributing members of the society, rather than burdens. Failing to anticipate the consequences of one's decisions, Carlin in Facione (2011) explained that it often leads to disastrous results, not only for the decision maker but for many other people as well. In his submission, Carlin decried the practice of trusting lives and fortunes of individuals to the decision-making of people who are gullible, uninformed and unreflective, explaining that this can lead to untold hardship and suffering caused by possible financial losses, fiscal and social burdens associated with economic misinterpretations, public health problems, crimes and avoidable poverty which could result from decisions made by unwise thinkers. This thought is aptly captured in the commencement speech of Navy Admiral Mike Mullen who was the Chairman of the joint Chiefs of Staff to a class of military officers in 2009:

> You will recall how you were inspired to think critically and to question without fear, to seek out radically different solutions and to voice them without reprisal, to read widely and deeply, and to examine without end and grow intellectually… (in Facione 2011:1)

Although, being educated according to Facione (2011) does not absolutely guarantee a life of happiness and economic success, it is better

than enduring the consequences of making bad decisions and better than being a burden to friends and family or bearing the consequences of poor choices in life. Thus having deep thoughts which leans towards critical thinking is a desirable place to be. Such position could be towards proving a point, interpreting what something means or solving a problem. Learning to think critically is a desirable lifelong skill especially in this century. Efforts therefore should be made to ensure that critical thinking skills are developed in learners to prepare them for fruitful adult living. This can be done, by introducing deep thinking skills into the everyday activities in the classrooms.

One of the significant aims of education is to produce learners who are well informed. This means that the learners should understand ideas that are important, useful and striking. In planning for what would be the lesson outcomes of each classroom contact period, the mind set of teachers should not just be to supply as much knowledge, information, ideas and facts to learners, in which case knowledge would be seen as an end in itself. But in teaching/learning processes, where knowledge is presented to serve as building blocks with which to construct or generate further knowledge (Constructivist approach). Learners should be taught in such a way that as they encounter situations in life, they would use knowledge already acquired to solve the daily life problems. This they should do, by generating decision precepts and alternatives based on facts, to optimize their decision making capacities. This means to use what they know to enhance their own lives and also to contribute to their society and its civilization. One of the major goals of education is to adequately arm recipients to make informed decisions in life. This could help students develop life-long critical thinking skills for successful adult lives. Thus school administrators who manage the teaching processes and teachers who engage the students in the actual learning processes should become more concerned about how learners receive information and facts presented to them, how they process same and subsequently how they apply them to solve life problems. Learners should be taught and guided to experience first-hand, how to decipher and

assimilate facts/ideas, how to critically analyse and evaluate same, before applying them to solve life problems. Consequently, the learners throughout the duration of educational programmes should be given opportunities to practice critical and analytical reasoning skills to gain experience for life.

Statements of Specific Objectives: Major Pointer to the Focus of a Lesson

In the teaching and learning process, the specific objectives of a lesson are usually deliberately selected by the teacher. It is what the teacher hopes to achieve during a specific lesson period of a given subject. Deliberately selected learning activities, a teaching/developmental strategy with relevant instructional materials and an assessment procedure usually completes the cycles of events that form a learning situation. Specific lesson objectives in a given lesson are never left to chance nor do they develop of their own accord. They are deliberately derived and laid out by the teacher to match each lesson topic. Specific lesson objectives over time should add up to the long term goals of each subject and educational programme. For example, in a civic education class, if the goal aimed at is to develop disciplined students who will demonstrate patriotism/love for their country, self-control and orderliness in conduct; each lesson's specific objectives would aim at eliciting such behaviour in the students. Thus each of the identified specific behaviours should add up to produce the total picture which is the "disciplined individual" aimed at. This way, the overall educational goal can be likened to a "complete building" while each specific objective is the "individual blocks" that make up the building.

According to Bush and Glover (2014), the specific objectives section in the lesson plan format is expected to contain the precise and delineated goals of what the teacher wants the students to be able to accomplish after the lesson is completed. Thus in order to direct the process, they recommend that questions such as the following should be answered:

What will students accomplish during this lesson?

Exactly how will the students show that they understand and have achieved the goals of the lesson?

Thus learning objectives, as Bush and Glover explain, are one of the pointers for teachers to structure, sequence, and plan out learning activities for a specific instructional period. This informs this analysis of lesson objectives in teachers' lesson plans to throw light on the problems highlighted in this study.

Identifying school heads as instructional leaders, Bush and Glover have said that their role is primarily about directing their leadership influence to focus on improving teaching and learning. It is safe to say that the school heads and teachers work together to implement educational programmes at all levels of the educational enterprise. At the secondary school level, the school heads are responsible for the quality of the teacher's lesson plans because they supervise them. To determine the nature of the statements of specific objectives of the lesson plans, the study analysed the lesson plans of teachers to assess the extent to which they address all the levels of learning and how these culminate to the expected end goals of the programmes.

Research Questions

These questions guided the study:

1. What category of learning is predominant in the specific objective statements of the daily lesson plans of teachers?
2. To what extent are the lower order and higher order learnings equally addressed in the lesson plans?
3. To what extent would the aggregate of the specific objectives found in these lesson plans lead to the depth of learning required to achieve the goals expressed in the National policy document at the secondary school level?

The researcher believes that answers to these and similar questions are capable of identifying the nature of learning currently going on in actual class engagements of secondary schools. The argument here is that, what is

aimed at daily, would eventually add up to the overall goal achieved at the end of the school programmes. That being the case, the findings of this study should be able to pinpoint the current learning inclinations of the schools, whether the learning emphasis is predominantly on peripheral/lower order learning or on deep/higher order learnings. Higher order learnings have been identified by researchers to promote critical and analytical reasoning skills. To achieve the objectives in the National policy on education highlighted earlier, the higher order learnings must be kept in focus and deliberately made to be among the predominant skills emphasised in the classrooms. The findings of this study, the researcher believes, will go a long way to provide information that could lead to improvements and reinforcement of best practices at this level to pave way for the ultimate realization of the national educational goals.

Methodology

A document analysis was carried out on the lesson plans of teachers to obtain information to respond to the research questions. 10 schools were purposively selected from 21 senior secondary schools (15 private and 16 public) in Port Harcourt Local Government Area of Rivers State to take part in the study. The sampled schools comprised of 5 private and 5 public schools. The private schools were labelled A-E and the public schools F-J to maintain anonymity of the schools involved. The lesson plans of SSII teachers in three core subjects; English, Mathematics and Civics for the 2nd term of 2018/2019 were analysed. Check lists developed by the researcher were used to record the frequencies of the action verbs used in the lesson plans studied. The check lists were prepared from a selection of action verbs grouped into the six learning categories identified in Blooms taxonomy culled from Clark (2015). The check-lists were validated by colleagues and experts in the department of Educational Management, Ignatius Ajuru University of Education. Simple percentages were calculated from the frequencies of the usage of the verbs in the subjects' lesson plans of each school. The frequencies were ranked to determine the verbs and the

category of learning favoured in the teachers' lesson plans. The highest ranked verbs represented the action verbs most frequently used and the learning category with the highest percentage indicated the category of learning focused on more by teachers in the schools studied. The results are as presented on the tables.

Results

Research Question One What category of learning is predominant in the specific objective statements of the daily lesson plans of teachers in the schools?

Table 1. showing the % usage of some verbs in lesson objectives of 5 private and 5 public Senior Secondary schools for 2nd term 2018/1019 session in Port Harcourt LGA of Rivers State

Categories and verbs used	**Percentage Usage of the Verbs in specific objectives of Private and Public Senior Secondary Schools Lesson Plans**									
	Private Schools					**Public Schools**				
	% Sch A	**% Sch B**	**% Sch C**	**% Sch D**	**% Sch E**	**% Sch F**	**% Sch G**	**% Sch H**	**% Sch I**	**% Sch J**
Remem:										
Define	14.0	18.0	13.6	13.5	16.8	15.6	10.2	17.5	20.0	5.0
Mention	8.0	12.0	5.8	19.7	21.8	7.5	18.8	19.8	6.7	16.6
Enumerate	3.0	3.0	1.0	5.8	4.0					
State	12.0	12.0	10.7	17.8	18.4	20.5	15.0	18.2	20.0	16.2
List	6.0	14.0	4.6	10.1	8.7	16.4	18.8	20.1	20.0	18.2
Name	0.5	1.0	0.3		4.2		5.0			
Recite		6.0	2.9	1.4	0.5	4.0				
Answer	8.0	1.0	8.4	12.2	10.8	12.7	12.2	10.7	13.3	15.5
Label	3.0		2.3							
Pronounce			0.3							
Spell										
Highlight										

March										
Under:										
Give	1.0	2.0	1.0	1.0	1.0	3.0				
Explain	2.0	1.0	1.0	4.8	6.5	10.0	6.0	6.0	6.7	
Expatiate	10.0	6.5	16.3					6.5		12.0
Interpret	2.0	1.0	1.0	0.5	1.0					
Classify			0.3							
Applying:										
Make			0.7							
Write										
Calculate	3.0	5.0	4.5		1.4					
Apply		3.0	3.6	1.0				1.2		
Demonstrate										
Determine										
Analysing:										
Identify			1.0	1.0	2.4					
Outline			0.3					3.0		
Evaluating:										
Draw										
Differentiate	1.6	2.0	1.3	0.5	1.5	1.0	3.5	2.8		
Describe	1.0	10.0	1.0						6.7	
Compare		2.0	1.6			1.0				
Evaluate										
Discuss	12.0	10.0	13.3	1.9	3.4	8.3	10.5	2.9	6.7	16.5

Table 2. Showing the Ranking of the % Usage of Some Verbs in the Lesson Plans of 5 Private Senior Secondary schools for 2nd term of 2018/1019 session in Port Harcourt LGA of Rivers State

Categories and verbs used	**Percentage Usage of the Verbs in specific objectives of Private Senior Secondary Schools Lesson Plans**									
	% Sch A	**Rank Sch A**	**% Sch B**	**Rank Sch B**	**% Sch C**	**Rank Sch C**	**% Sch D**	**Rank Sch D**	**% Sch E**	**Rank Sch E**
Remem:										

Define	14.	1st	18.	1st	13.	2nd	13.	3rd	16.	3rd
Mention	0	5th	0	3rd	6	6th	5	1st	8	1st
Enumerate	8.0	8th	12.	10th	5.8	14th	19.	6th	21.	8th
State	3.0	2nd	0	3rd	1.0	4th	7	2nd	8	2nd
List	12.	7th	3.0	2nd	10.	7th	5.8	5th	4.0	5th
Name	0	16th	12.	15th	7	21st	17.		18.	15th
Recite	6.0		0	8th	4.6	10th	8	11th	4	4th
Answer	0.5	5th	14.	15th	0.3	5th	10.	4th	8.7	6th
Label		8th	0		2.9	11th	1		4.2	
Pronounce	8.0		1.0		8.4	21st			0.5	
Spell	3.0		6.0		2.3		1.4		10.	
Highlight			1.0		0.3		12.		8	
March							2			
Under:										
Give	1.0	14th	2.0	12th	1.0	14th	1.0	12th	1.0	12th
Explain	2.0	11th	1.0	15th	1.0	14th	4.8	7th	6.5	9th
Expatiate	10.	4th	6.5	7th	16.3	1st				
Interpret	0	11th	1.0	15th	1.0	14th	0.5	15th	1.0	12th
Classify	2.0				0.3	21st				
Applying:										
Make					0.7	20th				
Write										
Calculate	3.0	8th	5.0	9th	4.5	8th			1.4	11th
Apply			3.0	10th	3.6	9th	1.0	12th		
Demonstrate										
Determine										
Analysing:					1.0	14th	2.4	8th		
Identify					0.3	21st	2.4	8th	1.0	7th
Outline										

Evaluating :										
Draw	1.6	13th	2.0	12th	1.3	13th	0.5	15th	1.5	12th
Differentiate	1.0	14th	10.0	5th 12th	1.0 1.6	14th 12th				
Describe			2.0							
Compare	12.0	2nd		5th	13.3	3rd	1.9	10th	3.4	10th
Evaluate			10.0							
Discuss										

Table 3. Showing the Ranking of the % Usage of Some Verbs in the Lesson Objectives of 5 Public Senior Secondary Schools for 2nd Term of 2018/1019 Session in Port Harcourt LGA of Rivers State

Categories and verbs used	**Percentage Usage of the Verbs in specific objectives of Public Senior Secondary Schools Lesson Plans**									
	% Sch F	**Rank Sch F**	**% Sch G**	**Rank Sch G**	**% Sch H**	**Rank Sch H**	**% Sch I**	**Rank Sch I**	**% Sch J**	**Rank Sch J**
Remem:										
Define	15.6	3rd	10.2	6th	17.5	4th	20.0	1st	5.0	7th
Mention	7.5	7th	18.8	1st	19.8	2nd	6.7	5th	16.6	2nd
Enumerate		1st		3rd		3rd		1st		4th
State	20.5	2nd	15.0	1st	18.2	1st	20.0	1st	16.2	1st
List	16.4	8th	18.8	8th	20.1	5th	0	4th	2	5th
Name	4	4th	5.0	4th						
Recite	4.0									
Answer										
Label										
Pronounce										
Spell										

Highlight	12.7		12.2		10.7		13.3		15.5	
Match										
Under:										
Give	3.0	9th								
Explain	10.0	5th	6.0	7th	6.0	7th	6.7	5th		
Expatiate					6.5	6th			12.0	6th
Interpret										
Classify										
Applying:										
Make										
Write										
Calculate										
Apply					1.2	11th				
Demonstrate										
Determine										
Analysing:										
Identify					3.0	8th				
Outline										
Evaluating:										
Draw	1.0	10th	3.5	9th	2.8	10th				
Differentiate	1.0	10th					6.7	5th		
Describe										
Compare	8.3	6th	10.5	5th	2.9	9th	6.7	5th	16.5	3rd
Evaluate										
Discuss										

Tables 1 and Table 2 show that the verbs that rank 1st in usage both in the private and public schools are predominantly of the "Remembering" category which is of lower order learning.

Research Question Two

To what extent are the lower order and higher order learnings equally addressed in the lesson plans?

Table 4. Percentage Distribution of Learning Categories in lesson plans of Senior Secondary Schools in Port Harcourt LGA

Learning Categories of verbs used	Percentage Usage of Learning Categories in Private and Public Senior Secondary Schools' Lesson Plans									
	Private Schools					Public Schools				
	% Sch A	% Sch B	% Sch C	% Sch D	% Sch E	% Sch F	% Sch G	% Sch H	% Sch I	% Sch J
Remember.	54.5	67.0	49.9	80.5	85.2	76.6	80.0	86.3	80.0	71.5
Understand.	15.5	10.5	19.6	6.3	8.5	13.0	6.0	12.5	6.7	12.0
Applying	3.0	8.0	10.1	1.0	1.4	Nil	Nil	1.2	Nil	Nil
Analysing	Nil	Nil	1.3	1.0	2.4	Nil	Nil	3.0	Nil	Nil
Evaluating	14.6	24.0	17.2	2.4	4.9	10.3	14.0	5.7	13.4	16.5
Creating	Nil	Nil	Nil	Nil	Nil	Nil	Nil	Nil	Nil	Nil

The results on table 4 shows that the learning categories are not equally represented in the teachers' lesson plans of the schools. The "Remembering" category which is of the lower order learning, is the most favoured in both the private and public senior secondary schools studied.

This is because the percentages for this category range from 49.9%. - 86.3%. The "Evaluating" category has values ranging from 2.4% - 24% and the "Understanding" category has values from 6% - 19.6%. "Applying" and "Analysing" categories of learning have very low values, while "Creating", learning verbs were not used in any of the lesson plans studied in all the schools. Additionally, the Private schools studied did better in the use of verbs in the "Understanding", "Applying" and "Analysing" categories than did their Public school counterpart. The data for these are shown on Table 5. Thus in answer to research question two, the lower and higher order learnings are not equally represented in the lesson plans of the schools.

Table 5. Average Usage in Percentages of Learning Categories in lesson plans of Private and Public Senior Secondary Schools in Port Harcourt LGA

Learning Categories	Percentage Average Usage of Learning Categories in Private and Public Senior Secondary Schools' Lesson Plans	
	Private Schools	Public Schools
Remember.	67.4	78.9
Understand.	12.1	10.0
Applying	4.7	0.2
Analysing	0.9	0.6
Evaluating	12.6	12.0
Creating	Nil	Nil

Research Question Three

To what extent would the aggregate of the specific objectives found in these lesson plans lead to the depth of learning required to achieve the goals expressed in the National policy document at the secondary school level?

Tables 1-5 show that majority of the action verbs used in the specific objective statements of lesson plans of teachers in the three core subjects in

senior secondary schools in Port Harcourt LGA of Rivers are predominantly of the "Remembering" category, which is of lower order learning. Learning objectives such as "define", "mention", "state", "list" dominate the lesson plans ranking mostly between the 1st -7th position of 21 verbs (Table 2 & 3). Thus remembering is the common learning outcome in these lesson engagements and it cuts across both the private and public schools studied. Thus learning activities are basically simple recall types which favours learning by rote or memorizing. Verbs which fall into the higher order learning categories are just occasionally used as shown in their rankings on Tables 2 and 3 and their percentage usage on Table 4. A prevalent condition of this sort will not lead to deep rooted learning which will encourage critical thinking much needed in this century among the teaming youths.

Discussion of Findings

The findings of the study showed that the lower order category of learning was predominant in the specific objective statements of lesson plans of senior secondary school teachers in Port Harcourt LGA. Verbs from the "Remembering" and "Understanding" categories were the most widely used. This is consistent with the findings of Okogbaa (2017), who in an earlier study among teacher trainees found that the lower order learning dominated the lesson objectives with a percentage value as high as 71.2% while the higher order verbs had only about 28.6% usage.

The study also showed that the learning categories were not equally represented in the teachers' lesson plans. The lower order learnings were the favourites of the teachers both in the public and private schools. The implication of this is that learning by rote will be the most dominant learning activities because the learning tasks are basically simple recall types. In such a situation, the aggregate of the specific objectives in these lesson plans may not lead to the depth of learning required to achieve the goals expressed in the National policy document at the secondary school level. Deep learning which fosters creativity, analytical and critical thinking

skills may never be cultivated among the students with these high percentages of recall type learning tasks. To produce or "…raise a generation of people who can think for themselves, respect the views and feelings of others, respect the dignity of labour, appreciate those values specified under broad national goals and live as good citizens… (FRN, 2014)", the practice in the schools have to go beyond the results shown in this study. As Asuru (2017:60) noted in his Inaugural lecture that "for educational opportunities offered learners to yield the desired results, there must be a fine mixture (integration) of all the three domains, a blend to prepare the individual adequately to face the challenges of his environment". Asuru may have been referring to the three learning domains (Cognitive, Psychomotor & Affective) but the application is much the same for the two categories of learning considered here. This also agrees with a similar call made by Chukueggu (2019), who advised that in this 21st Century, schools should encourage teachers to expand their thinking by coming up with new ideas. Chukueggu added, that this can be done for example, in reading comprehension, by asking students' questions that would make them think critically which includes: to infer, connect, create, criticize, evaluate and analyse. These all fall within the higher order learning categories being espoused in this study and projected as necessary for successful living in this century.

Recommendations

In the light of this, the following recommendations are made:

1. The school heads/Principals who supervise teachers' lesson plans should be aware of the possible damage that a non-thorough supervision of the lesson plans of teachers can result to. Lesson plans of teachers should be painstakingly vetted each time to ensure that each aspect seamlessly fits into the other to facilitate the achievement of school goals. The practice of quickly scanning teachers' lesson plans without carefully studying same to match lesson tasks with lesson objectives should be discouraged. An appropriate balance

must be struck among the domains and categories of learnings to ensure effective learning.

2. Training programmes to improve teachers' skills along these lines to build their capacities to write lesson plans that meet the contemporary needs of learners in this century should be organized as often as the need arises. These will encourage and sustain best practices among serving teachers.
3. Induction and orientation programmes for fresh teachers should include this aspect to call attention to its renewed importance in lesson plan writing and effects on students' academic achievements.
4. Heads of Departments, Directors of Teaching Practice Units and Deans of Faculties of Education in the universities, should ensure that renewed attention is made to lesson plan writing by teacher trainees. The lesson plan formats for the Practice Teaching periods should be revised and additional scores could be earned on this aspect to call attention to its importance, since the ability to present lessons that address all the learning categories hinges greatly on this step.

Conclusion

The study examined the lesson plans of teachers in some core subjects in private and public senior secondary schools in Port Harcourt LGA of Rivers State. The major aim was to identify the targets of the lessons' learning objectives; if lower or higher order learning were the focus of class engagements. Lower order learnings are known to encourage learning by rote while the higher ones promote creativity and critical thinking among learners. The findings of the study showed that lower order learnings were the major emphasis of most of the learning activities in the lesson plans. Verbs from the "Remembering", "Understanding" and "Applying" categories topped the lists of verbs used in the specific objectives of the lesson plans of the teachers. Verbs from "Creating" category which ranks as the highest of the learning categories, was not used in any of the lesson

plans. The researcher called attention to the fact that if this condition is widespread and persists in the schools, school leavers from this level may not meet the standard of development required to face the challenges of this 21st Century. Part of the 21st Century survival skills is that individuals among other things must be able to think critically, be creative, learn to problem solve and be life-long learners. Thus if the educational experiences at this level does not meet this expectation, then the recipients may be misfits in the society and the educational mission a wasted venture.

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