PERCEPTION OF ENUGU STATE BASIC TEACHERS ON USE OF POWERPOINT AS INNOVATION IN TEACHING DURING LESSON PREPARATION, DELIVERY AND EVALUATION FOR SUSTAINABLE DEVELOPMENTAL GOALS' ATTAINMENT

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Abstract

This study examined perception of Enugu State basic teachers on use of PowerPoint as innovation in teaching during lesson preparation, delivery and evaluation in attaining goal four (4) of the Sustainable Developmental Goals. Three research questions guided the study. Inter-disciplinary basic teachers sent for Enugu State 2020

SDGs workshop, numbering 20, constituted the population for the study. Total population sampling technique was employed as sample due to manageable size of this population. As such, all the 20 Basic Teachers sent for the workshop formed the respondents. BATEPP instrument, made up of 12 items, with reliability of 0.87 using Cronbach alpha, also face-validated by three computer experts was used to collect data used to elicit information after being analysed in MS Excel. Means and percentages were used to answer the three research questions that guided the study. It was found out that the ICT and mathematics teachers utilized PowerPoint more than basic science and agricultural teachers, as seen in the means and percentages during lesson preparation, delivery and evaluation. However, all the basic teachers sent for the workshop had perception above average in each stage of the learning process and need to step down what they learnt to other teachers in the various LGAs that sent them to be their representatives. Every teacher needs to cooperate in this regard to facilitate the achievement of goal four (4) of the SDGs, leading to development and progress in the education sector.

Keywords: Perception, Basic Teachers, SDGs, teaching/learning process, pnnovation, MS PowerPoint.

Introduction

Perception is a way one regards or understands a concept. According to Longman (2021), perception is the way one thinks about something. Basic teachers' perception can affect what they use in teaching in class at the foundation level of education, during lesson preparation, delivery and evaluation of the entire lesson contents. Basic Teachers are found in all primary schools (Primary 1 to 6) and also in all junior

secondary schools (JS1 to 3). Basic teachers teach pupils in primary schools. They also teach students in junior secondary schools. The basic teachers teach basic subjects that include ICT in Computer Studies, Mathematics, Agricultural Science, Basic Science and others. There is need to understand fundamental knowledge taught by basic teachers to enable better understanding at higher levels of education. Teaching in the past, called traditional method, made use of chalk and board. Teachers were more active than students, leading to difficulty in transfer of knowledge to learners which may have in turn promoted development in the education sector. Learning with understanding currently involves the use of smart phones, computers and laptops which are needed in this 21st century classroom instructions (Onah, Ude and Obe, 2017). Current researches found out that when learners participate more actively in the learning processes, they learn with understanding, which is promoted, leading to higher achievements (Agwagah 2007). This is why NTI (2018), in her three consecutive ICT modules for SDGs, boldly writes: 'practice makes perfect' and advises in her introduction - Leave No One Behind (NTI, 2016, 2017, 2018). The use of MS PowerPoint software, found in Computer, in the teaching process is called for in this 21st century, because it promotes understanding by learners.

To show the importance of the PowerPoint, the concept of MS PowerPoint is repeatedly seen in all the ICT modules produced by the NTI, including the NTI (2020) for Sustainable Developmental Goals' (SDGs') attainment. Basic teaching using PowerPoint (BATEPP) instrument developed by the researchers, made up of 12 items, may be of great use to teachers because the instrument employed basic processes involved in lesson preparation, delivery and evaluation in MS PowerPoint which the researchers have not seen before in any other write-up. Arrangement of learning contents from known to unknown, simple to more complex is also called for to promote understanding of what is being taught. Each slide is sequentially

arranged in MS PowerPoint in ascending order of difficulty. Suggested effects -both animation and transition effects - need not be too much for better understanding of any of the stated educational objectives. This is in line with Bloom (1954) who stated that there are six major categories of educational objectives in the following order: knowledge, comprehension, application, analysis, synthesis and evaluation. While preparing a lesson in any basic subject, the order is borne in mind, especially in MS PowerPoint. This is an innovation that needs to be adopted by every basic teacher in order to achieve goal four (4) of the Sustainable Developmental Goals (SDGs). Innovation in teaching using computer is needed in this 21st century, as many educators recommend such for effective teaching and learning (Onah and Onyebuchi,2018). To be an innovative teacher is to be a creative teacher – adopting something new to enhance teaching and learning.

Defining innovation, Nkadi (2017) stated that innovation means creating something new by a teacher to promote effective teaching so that students learn with understanding. According to Onah and Onyebuchi (2018), effective teaching process occurs when students learn with understanding after lesson delivery using computer/smart phone in teaching every 21st century student.

Sustainable Developmental Goals (SDGs), which started in 2016 to end in 2030, is calling for development in every sector of life, including education, right from the grass root. The Sustainable Development Goals (SDGs), also called Global Goals, are 17 interlinked goals adopted by the United Nations in 2015 as a Universal call to end poverty, protect the planet and make lives better by 2030. The SDG 4 aims specifically to "ensure inclusive and equitable quality education and promote lifelong learning opportunities" (NTI, 2020). This goal four (4) of the Sustainable Developmental Goals (SDGs) is specific on improvement of teaching and learning, leading to development in the education industry. The

actual statement of goal four of the SDGs means that there is need to include learning materials of teaching that are innovative in nature which can in turn promote lifelong learning opportunities for all, especially learning of basic subjects taught by basic teachers in primary and junior secondary schools. This can equally promote transfer of learning at higher levels of education, leading to growth and development in education industry. Since SDGs were initiated by UNESCO (2015) to end poverty and improve development in every area of life by 2030, all hands must be on deck to achieve the 17 interlinked goals which are categorized into three dimensions: social, economic and environmental, as in the chart on SDGs dimensions, according to NTI(2018) and also NTI(2020). The first five goals were under social to include: end poverty, end hunger, promote good health, quality education and gender equality. Goal four (4) is on quality education. Teachers' focus on this goal four (4) realizations is the main concern of the present researchers, and PowerPoint use for enhancement of teaching of learning contents is an innovation in teaching. The way basic teachers perceive its use matters a lot and hence this study.

PowerPoint use is simply an innovation in teaching where slides are emphasized in place of pages in MS Word. Facilities for giving different effects to one's created slides also exist in MS PowerPoint. In the past, chalk/board method was used in teaching the pupils/students, and this has many disadvantages when compared with use of computer in teaching. Previous researches found out that out of the major factors influencing students' achievement, that the teacher factor appears prominent (Onah, Ugwuanyi, Okeke, Nworgu, Agwagah, Ugwuanyi, Obe, Nwoye & Okeke, 2020). When teachers use innovative methods in teaching the students, the achievement of students in internal/external examinations will likely be high, instead of low (Azuka, 2013). Perception of teachers on the use of new technology software like PowerPoint may equally be high in the

teaching and learning processes when learning contents are sequentially arranged in the innovation employed.

One may, at this juncture, ask: What are the perception of teachers on the basic processes found in lesson preparation, delivery and evaluation using MS PowerPoint? To answer the above question is to portray the computer skills involved while using PowerPoint to create, deliver and evaluate in order to find out the achievements of the stated objectives in any teaching and learning process. These needed PowerPoint skills are embedded in BATEPP instrument which is made up of 12 items categorized into three groups of four items each for lesson preparation, lesson delivery and evaluation of learning contents delivered.

Defining PowerPoint, Azare (2016) indicated that PowerPoint is a presentation programme developed by Microsoft for Microsoft office system. Unlike MS Word developed by the same group (Microsoft office) where pages are emphasized, slides are always used in PowerPoint and not pages. Teacher's detailed description of course of instruction, bearing learners' level in mind, is sequentially arranged slide-by-slide in MS PowerPoint. After keying in the contents slide-by-slide, from simple to a more complex learning material, the slide show is run to check the animation and transition effects of the package and to correct any observed error in lesson plan developed before the actual presentation. These include correct words accompanying pictures seen in different slides. It is when this is done that the teacher starts the lesson presentation, followed by evaluation of objectives previously stated. Some experts in NTI (2020) refer to PowerPoint as slideshow presentation or presentation package. One of the advantages of PowerPoint is that although the learning contents are sequentially arranged, one can click on any slide of one's choice and learn from it after running the entire package slide-by-slide. Also, one can click on any slide to learn from each picture with accompanying words. One can easily critique for production of a

better package. This teaching innovation is very practical and needs to be adopted from grass root level in every basic school and not just in few schools. Pictures of some Nigerian children in PowerPoint class retrieved from the Net can be shown. Also, some texts with pictures in slide of what one can be taught using PowerPoint, such as diagram of interconnectivity of computers for computer network with definitions of Local Area Network (LAN) and Wide Area Network (WAN) such as Internet accompanying the pictures, can be seen in NTI (2020). Following this example, one can include diagram of a three-sided figure enclosed in straight lines in teaching triangle for the first time and writing text beside it to read that a triangle is a three-sided plane figure enclosed by straight lines. Diagrams of different types of triangles with texts can follow suit. Similar examples from Biology, Agriculture or any other basic subject can follow suit, with diagrams and explanations of texts indifferent slides of PowerPoint.

Since learning from PowerPoint slides is an innovation in the teaching process, and SDGs call for active participation of learners, leading to understanding and transfer of knowledge, determining the perception of basic teachers on its use is called for, so that effective learning can take place. This is because a teacher is supposed to be above the learner in classroom instructions, since teachers are curriculum implementers, and if the teachers have positive perception on its use, employing the new technology in teaching will be made manifest. When learners learn with understanding, attainment of the stated objectives of the SDGs will be made possible, at least as it affects quality education.

Problem of the Study

Poor performance of students in external examination due to poor teaching methods adopted by some teachers constitutes worries to educators in the field (Azuka, 2013;Agwagah, 2007). The use of computer in teaching has been found to be effective (Onah,2015;

Laudon and Laudon, 2001). The way basic teachers, who are grass root curriculum implementers, perceive the use of innovative method of teaching, especially use of computer, as playing a vital role in the Nigerian society, because one can only give knowledge acquired. Attainment of SDGs in the education industry, which desires for proper understanding and transfer of learnt contents into another field of learning by every learner, is called for to prevent poor performanceand promote high achievement by students, hence this study.

Significance of the Study

This study will be beneficial to everyone in the field of education as a means of attaining the developmental goals, irrespective of level of education. This is because students will learn with understanding from sequentially arranged learning contents by the teachers through pictures and texts in the same slide which PowerPoint promotes and also which will enhance better understanding by learners, leading to higher achievements in both internal and external examinations. Also pupils/students can transfer knowledge into another field, which indicates mastery of learning contents, leading to development in every area of life. Teachers and other educators will learn how best to use PowerPoint by sequentially arranging teaching contents with accompanying texts in slides.

Scope of the Study

The study was carried out in Enugu State of Nigeria and the use of PowerPoint as innovation in every aspect of the teaching process was adopted, ranging from lesson preparation, delivery to evaluation.

Purpose of the Study

The main purpose of this study was to ascertain the perception of Enugu State basic teachers on the use of PowerPoint as innovation in teaching. Specifically, the study sought to determine the perception of basic teachers on use of PowerPoint during lesson:

1.Preparation.
2.Delivery.
3.Evaluation of the prepared and delivered learning contents for SDGs' attainment.

Research Questions

1. What is the perception of basic teachers on the use of PowerPoint during lesson preparation, as measured by their mean responses?
2. What is the perception of basic teachers on the use of PowerPoint during lesson delivery, as measured by their mean responses?
3. What is the perception of basic teachers on the use of PowerPoint during lesson evaluation for SDGs' attainment, as measured by their mean responses?

Theoretical Background of this Study

This study is related to the theory propounded by Benjamin Bloom (1954) that there are six major categories of educational objectives in the following order: knowledge, comprehension, application, analysis, synthesis and evaluation. This present study is interested in sequentially arranging learning contents in MS PowerPoint from prerequisite knowledge, emphasizing the objectives to be achieved from simple to a more complex one, according to Bloom. The arrangement in each slide also depends on the child's level of education. The study is equally anchored on the cognitive theory of Richard Mayer (1947) that learning becomes effective when it comes from words and pictures than words alone. Packages prepared in PowerPoint promote learning from words and pictures, and as such Mayer's cognitive theory of multimedia learning is related to this present study. According to Onah (2015), MS PowerPoint learning is an example of multimedia learning because of diagrams accompanying texts in each slide. When pictures/texts and words portray the same message, better understanding of learning contents is likely going to be achieved. The implication of this statement is that

when basic teachers highly perceive the use of PowerPoint in the teaching and learning process, achievement of students in both internal and external examination is expected to be high, leading to development and progress, which goal four of SDGs is calling for. When one wants to teach internet as interconnectivity of computers, the person can click the to add title and also click to add sub-title in the PowerPoint slide to enter texts with accompanying diagrams. Diagrams on different subject areas like Computers Studies, Mathematics, Basic Science, Agricultural Science or Technical Subjects can be inserted inside texts in the PowerPoint slides for better understanding. Some illustrations include: teaching internet with pictures of interlinked computers, teaching triangles with diagrams of three-sided figures shown, teaching photosynthesis with pictures of green leaves shown or teaching packaging farm products with diagrams of primary and secondary packaging shown on different slides. One can use two straight woods to demonstrate the concept of orthogonal/perpendicular of the two objects with accompanying texts. This present study aims at finding out the basic teachers' perception on the above issues and other through PowerPoint use in the teaching and learning process which includes lesson preparation, delivery and evaluation, for SDGs' attainment.

Review of Related Empirical Studies

Many studies conducted on effect/perception of teachers on use of computer software to enhance teaching and learning are in existence. Onah (2015) carried out a study on effect of PowerPoint on senior students' achievement in sets in Enugu State, Nigeria and found the package to have increased students' interest and promoted high achievement. Both male and female students performed highly. Onah and Agomuo (2016) researched on level of utilization of computer-aided design, instruction and learning by lecturers in the faculties of education in the universities in Enugu State and found out that some of the lecturers did, but some did not utilize the computer-aided packages during lesson preparation, delivery and evaluation of

learning contents. Onah, Ugwuanyi, Okeke, Nworgu, Agwagah, Ugwuanyi, Obe, Nwoye & Okeke (2020) researched on evaluation of computer-assisted instruction on mathematics and physics students' achievement: implication for industrial technical education. The researchers found out that computer-assisted instruction significantly improved mathematics and physics students' achievement. The question now is; will the present study portray high perception? Researching on the awareness and perception of educators on the use of some ICT platforms: WhatsApp, Facebook and Zoom on dissemination of information on Covid-19, Onah, Obe, Ozioko, Enema & Ude (2021) found out that all the educators were aware of the use of the different ICT platforms in dissemination of information, but all are not in high perception on the use. The need for retraining the basic teachers regularly/annually to update their knowledge for effective teaching and learning is called for always, according to the above researchers, and the present researchers are of the view that finding the perception of the basic teachers on innovative method for effective teaching may be a way forward to promote the achievement of SDGs, being the 17 interlinked goals, according to NTI (2018), as shown below (See Appendix A), with emphasis on goal four, which emphasises quality education.

Method

The design used for this study is descriptive research design because opinions ofbasic teachers were sought on the use of PowerPoint as innovation in teaching during lesson preparation, delivery and evaluation for Sustainable Developmental Goals' attainment. The population for the study was twenty (20) Enugu State basic teachers sent for 2020 retraining workshop who were also used as sample due to their manageable size. Pilot test was done in a basic school in Ebonyi State. Basic teaching, using PowerPoint (BATEPP) instrument, developed by the researchers, made up of 12 items was used to collect data on perception of Enugu State basic teachers on the

use of PowerPoint as innovation in teaching during lesson preparation, delivery and evaluation. Face validity of BATEPP was done by three computer experts and after trial testing, Cronbach alpha was used for determining the reliability of BATEPP and it resulted to 0.87.The questionnaire had Section A for demographic data and Section B, partitioned into three, for lesson preparation, delivery and evaluation. A 4-point rating scale was used to collect data, ranging from Very High Perception (4pts), High Perception (3pts), Low Perception (2pts) to Very Low Perception (1pt). After data analyses, decisions were taken based on the following: Mean of 2.5 and above, corresponding to percentages of 62.5 % and above, are for both High Perception (HP) and Very High Perception (VHP), while below are for both Low Perception (LP) and Very Low Perception (VLP). Diagrammatically represented, one can use number line to show positions of 2.5 for mean of means, 1 for lowest score and 4 for highest score in raw scores of 1, 2, 3, 4, thus:

1 2 **2.5** 3 **4**

Lowest **Mean Of Means** Highest

The above four-point rating scale was used in taking decision with the equivalence in percentage (%).

Results

Research Question1

What is the perception of basic teachers on the use of PowerPoint during lesson preparation, as measured by their mean responses?

To answer this research question, the table below was generated from data collected, analysed and used as shown below:

Table 1

Mean responses on Perception of basic Teachers on the Use of PowerPoint during Lesson Preparation

No	Items	MM %	CM %	BSM %	AM %	R1	R2	R3	R 4

1	Creating learning materials starting with title /subtitle in testing prerequisite knowledge	3.8 95%	3.6 90%	3.2 80%	2.8 70%	VH P	VH P	VH P	H P
2	Creating slide's learning materials sequentially, bearing Bloom's taxonomy of educational objectives in mind.	3.6 90%	3.4 85%	2.8 70%	3.0 75%	VH P	VH P	HP	H P
3	Adding animation effects to slide(s) one by one or adding transition effects to two or more slides	3.4 85%	3.8 95%	3.0 75%	2.6 65%	VH P	VH P	VH P	H P
4	Preparing Offline/Online packages in CDROM/ Web respectively after running slide show	3.6 90%	3.8 95%	2.6 65%	3.2 80%	VH P	VH P	HP	V H P

Key: For **Table1** above and also for **Tables2** and **3** below, the following key holds as guide:

VHP,HP,LP,VLP stand for Very High Perception, High Perception, Low Perception, Very Low Perception respectively. MM,CM,BSM,

AM stand for Mean for Mathematics, Mean for Computer Studies , Mean for Basic Science, Mean for Agriculture respectively, with equivalence of each mean in percentage. R1,R2,R3,R4 each stands for Remark in order of the listed basic subjects.

Table1 above shows very high perception by Mathematics and Computer Studies teachers on the use of PowerPoint during lesson preparation, as measured by their mean responses. Mean for Basic Science and mean for Agriculture teachers, however, show high perception in three items each and very high perception in only one item each from the four items listed for lesson preparation. None of the four groups of basic teachers presented low perception during lesson preparation.

Research Question2
What is the perception of basic teachers on the use of PowerPoint during lesson delivery, as measured by their mean responses?

Table 2
Mean Responses on Perception of Basic Teachers on the Use of PowerPoint during Lesson Delivery

S/N	Items	MM %	CM %	BSM %	AM %	R1	R2	R3	R4
5	Delivering lesson from first slide to last slide during a first presentation in a basic class	3.8 95%	3.6 90%	2.6 65%	2.8 70%	VHP	VHP	HP	HP
6	Emphasizing mastering of slide one	3.4 85%	3.8 95%	2.8 70%	3.0 75%	VHP	VHP	HP	HP

	before proceeding to another slide that is following								
7	Teaching /learning each slide's object with accompanying texts	3.2 80%	3.6 96%	3.0 75%	2.6 65%	VHP	VHP	HP	HP
8	Explaining the relationship between all the slides prepared for one topic mentioned with first slide bearing title	3.6 90%	3.4 85%	2.8 70%	3.0 75%	VHP	VHP	HP	HP

Table 2 above shows very high perception by Mathematics and Computer Studies teachers on the use of PowerPoint during lesson delivery, as measured by their mean responses. Mean for Basic Science and mean for Agriculture teachers, however show high perception in the four items listed for lesson delivery. None of the four groups of basic teachers presented low perception during lesson delivery.

Research Question3

What is the perception of basic teachers on the use of PowerPoint during lesson evaluation for SDGs' attainment, as measured by their mean responses?

Table 3
Mean Responses on Perception of Basic Teachers on the Use of PowerPoint during Lesson Evaluation

No	Items	MM %	CM %	BSM %	AM %	R1	R2	R3	R4
9	Evaluating the mastery of test for entry behaviour	3.4 85%	3.6 90%	3.0 75%	2.8 70%	VHP	VHP	HP	HP
10	Asking probing questions that test objectives at both knowledge and comprehension levels	3.2 80%	3.0 75%	2.8 70%	3.0 75%	VHP	VHP	HP	HP
11	Testing the pupils/students understanding on objectives in application and analysis	3.8 95%	3.6 90%	3.0 75%	3.0 75%	VHP	VHP	HP	HP
12	Asking more comprehensive questions that bring concepts together in form of synthesis and summary of evaluation	3.6 90%	3.4 85%	2.6 65%	2.8 70%	VHP	VHP	HP	HP

Table3 above shows very high perception by Mathematics and Computer Studies teachers on the use of PowerPoint during lesson

evaluation, as measured by their mean responses. Mean for Basic Science and mean for Agriculture teachers, however, show high perception in the four items listed for lesson evaluation. None of the four groups of basic teachers presented low perception during lesson evaluation.

Discussion of Findings

The findings presented in **Tables1**, **2** and **3** above are discussed as shown below:

Table1 shows very high perception by Mathematics and Computer Studies teachers on the use of PowerPoint during lesson preparation, as measured by their mean responses. Mean for Basic Science and mean for Agriculture teachers, however, show high perception in three items each and very high perception in only one item each from the four items listed for lesson preparation. None of the four groups of basic teachers presented low perception during lesson preparation. This finding is similar to the study carried out by Onah, Obe, Ozioko, Enema and Ude (2020) who researched on perception of educators on the use of ICT and found out that some educators perceived highly the use of some ICT platforms in dissemination of information on Covid-19. However, some showed low perception in some items on the use of ICT platform items in the previous research. This research is also similar to that of Uzoechi (2006), who worked on perception of the availability and usage of resources for primary science teaching in the Federal Capital Territory, Abuja. The researcher found out that policy on the resource for teaching primary science is not adequately being implemented, as schools lack both human and material resources for science teaching, resulting in the use of inappropriate method of teaching which has brought about poor achievement by pupils. The implication of this finding is that if basic teachers' perception is high

and also if teachers use appropriate method of teaching, the achievement of learners will be high. This is what SDG four (4) is clamouring for, to promote attainment of quality education by learners.

Table2 above presents very high perception by Mathematics and Computer Studies teachers on the use of PowerPoint during lesson delivery, as measured by their mean responses. Mean for Basic Science and mean for Agriculture teachers, however, show high perception in all the four items listed for lesson delivery. None of the four groups of basic teachers presented low perception during lesson delivery. The finding is in line with Onah (2015) that the use of Multimedia Projection Package like PowerPoint in teaching set enhanced students' achievements and needs to be encouraged for effective lesson delivery.

Table3 above shows very high perception by Mathematics and Computer Studies teachers on the use of PowerPoint during lesson evaluation, as measured by their mean responses. Mean for Basic Science and mean for Agriculture teachers, however, show high perception in the four items listed for lesson evaluation. None of the four groups of basic teachers presented low perception during lesson evaluation. This finding is in agreement with Laudon and Laudon (2001), that in an organization like school, teachers as curriculum implementers perceive the use of computer software and hardware as being useful in classroom processes. This is why Onah and Agomuo (2016) referred to computer as versatile electronic device, since every subject area uses it in teaching and learning. Computer is user-friendly, as such, every area of life needs to adopt its use for effective teaching and learning process.

From all the results above, one can generally state that all the basic teachers perceived the use of PowerPoint as either very highly or highly for being effective in teaching and learning processes for

SDGs' attainment, as reflected in the NPE (2013). It is interesting to observe that none of the basic teachers had low perception on the use of PowerPoint. These findings give hope to Enugu State citizens in particular and Nigeria at large, that all things being equal, there shall be development in the education industry which SDGs are clamouring for before the deadline date of 2030. Let there be development in every sector for the 17 interlinked goals.

Conclusion

Based on the findings, the researchers conclude that generally, basic teachers perceive highly the use of PowerPoint as innovation in teaching during lesson preparation, delivery and evaluation. The problem of mass failures may lie on implementation. The use of PowerPoint in the teaching process as an innovation actually promotes understanding, since pictures and texts accompany most slides. This idea needs to be adopted by every teacher. Also, arrangement of teaching contents bearing Bloom's taxonomy of education objectives in mind is needed from every teacher to attain the SDGs through understanding, followed by high achievements by students in both internal and external examinations.

Recommendations

The researchers, from the findings, recommend as follows that:

1. Annual retraining of Enugu State basic teachers through SDGs workshops be continued and more teachers should be sent for retraining, not just 20 basic teachers sent for the 2020 workshop.
2. Teachers who have benefited from this workshop should not be nominated again, but opportunities should be given to others to benefit equally from the government sponsorship.
3. Teachers who have already benefitted from the training should step down what they have learnt to other teachers in the various LGAs that sent them, using detailed and updated manuals in the

four key subjects for SDGs namely: Information and Communication Technology (ICT), Language Communication Skills (LCS),Teaching Methods and Skills(TMS) and Effective Classroom Management Skills(ECMS).

4. Every basic teacher should adopt the use of PowerPoint in classroom for better understanding of learning contents, especially learning of abstract concepts in any subject area, with both diagrams and texts in each slide.
5. Bloom's taxonomy of educational objectives should be sequentially adhered to by classroom teachers for promotion of transfer of knowledge and better understanding by learners.
6. This innovation (PowerPoint use) in teaching has to be embraced by all basic teachers as it will definitely lead to understanding, followed by high achievement by pupils/students, which will in turn lead to development.
7. Government should collaborate with school authorities in all the three tiers of education (primary, secondary and tertiary) levels in the sponsorship of teachers, in this regard, for effective teaching and learning for the attainment of the SDGs.

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