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Strategies for Development of Educational Media from Local Resource for Universal Basic Education Teachers

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Abstract

Education is regarded as a veritable tool for national development and it is the greatest legacy that any nation can give to its citizens. Educational media are vital tools in the educational process. The teaching and learning of any subject at any level of education requires diverse human and material resources. Effective utilization of educational media into classroom is largely dependent upon their availability, clarity, usability, etc. This paper examines the curriculum of Universal Basic Education (UBE) in Nigeria and strategies for the development of educational media from local resource which includes – improvisation, borrowing, readymade source etc. It also examine factors to be considered in the selection of educational media materials for sustainable Universal Basic Education in Nigeria

Key words: Educational Media Resources, Universal Basic Education, Utilization, and National Development

Education is regarded as a veritable tool for national development and it is the greatest legacy that any nation can give to its citizens. This was the driving force that motivated the organizers of the 1969 National curriculum conference.

There is no alternative to education in the development of any nation, be it at primary, secondary and tertiary levels. In this regard, the Federal Government of Nigeria in the realization of the importance of teacher education had specified in the National Policy on Education that since no education system can rise above the quality of its teachers, teacher education shall continue to be given major emphasis in all educational planning and development. It enumerated the goal of teacher education in the National Policy on Education (2013: 29) to be:

- (a) produce highly motivated, conscientious and efficient classroom teachers for all levels of our education system
- (b) further encourage the spirit of enquiry and creativity in teachers;
- (c) help teachers fit into the social life of the community and the society at large and enhance their commitment for national goals;
- (d) provide teachers with intellectual and professional background adequate for their assignment and to make them adaptable to changing situations; and
- (e) enhance teachers' commitment for the teaching profession.

The National Policy on Education (2013:30) further states that "All teachers in educational institutions shall be professionally trained".....

Effectively, introducing educational media into classroom is largely dependent upon the availability, if educational media cannot be accessible and available to teachers as in so many educational settings, then it will not be used.

Then availability and use of educational media from local resources in teaching has become imperative because of the fact that these teachers need to be trained they would be teachers that educate people on various sectors of the economy (Johnson (2012). When educational media are not used, teaching would still take place and learning too, to a certain extent. However, there are likely to be problems both in teacher's ability to communicate effectively as well as in the learner's level of understanding.

Educational media resources are vital tools in education in general. They encourages all persons and things, capable of conveying information, values, processes, experiences and Techniques that can be used to actively engage learners in the learning process (Amechi, 2010). The teaching and learning of any subject at any level of education requires diverse human and material resources. In this age of technological development, there is any increased demand in teacher training institutions to embrace the opportunities presented by technology especially at the basic education level. This has been observed by Okoli, (2010) that students irrespective of their age, tribe or school location are equally hungry for the new technologies.

New Basic Education Curriculum

The new basic education curriculum has been designed in a way that it's imperative for teachers to use educational media resources either real or improvised from the local resources available for its effective implementation. You teach more effectively if you have resources to aid you. Most times school may or may not have the needed resources so you would need to develop them yourself. However, you need to have a good knowledge of the Educational media resources so that you can select appropriate ones and make some yourself, using local resources (improvisation).

Origin of the New Basic Curriculum.

Since independence, successive Nigerian governments have shown various degrees of commitment to the education of its citizens. In 1976, Government introduced a free Universal Primary Education (UPE). In 1999 Universal Basic Education (UBE) scheme was launched to provide free education and compulsory basic education up to junior secondary school level. Government will ensure that Nigerian children receive a minimum of 9 years of formal education (6 years of primary school and 3 years of junior secondary school) that would prepare them for fruitful participation in the nation's development.

A number of reasons necessitated the extension of provision of compulsory education to cover the first nine years of formal schooling. First and foremost as observed by Danladi (2006) primary and junior secondary school (JSS) leavers lacked functional literacy, numeracy and basic communication skills. Secondly, there was a disconnect between the old primary school curriculum contents and what the children were expected to learn in the Junior Secondary School (JSS). For instance, there were gaps between the contents of primary science and integrated science. Whereas pupils were expected to study Introductory Technology in the junior secondary school, there was not technology of any sort in the primary school curriculum as a building block. The old primary and JSS curriculum did not include subjects such as Computer Studies or Information and Communication Technology (ICT) and Civil Education. Thirdly, strategic national values, civic responsibility, moral education and work skills were either not sufficiently emphasized in the old curriculum or were absent completely.

Beyond these curricular gaps, there have been some new national and international initiatives such as the National Economic Empowerment and Development Strategy (NEEDS), the Millennium Development Goals (MDGs) and global protocols for Education for All (EFA). These initiatives seek to address the educational and developmental challenges of youths and adults, particularly those living below poverty line. The contents of the old primary and JSS curricula could no longer meet the ideals of these new initiatives and the goals of Basic Education. In summary the curriculum had become obsolete and needed revision. Consequently, the new 9-year BEC was

developed by the Nigerian Educational Research and Development Council (NERDC) and approved by the National Council on Education (NCE) in December 2006, to ensure the effective implementation of nine years of compulsory schooling for Nigerian children.

Philosophy and Purpose of the New Curriculum

The philosophy of the new BEC can be summarized as follows:

every learner who has gone through 9 years of basic education should have acquired appropriate levels of literacy, numeracy, manipulative communicative and life-long skills; as well as the ethical and civic values needed for laying a solid foundation for life-long learning; as a basis for scientific and reflective thinking. (NERDC, 2008).

The new curriculum, among others, will provide the basis for:

- acquisition of scientific and technological skills
- reorientation of values, civic and moral responsibilities as well as family living skills
- acquisition of skills for poverty eradication.
- Laying of the foundation for acquisition and application of ICT skills

Appropriate level of literacy and numeracy means that primary school pupils will be able to functionally read and write as well as carry out simple mathematical operations. They should also be able to communicate and put up socially acceptable behaviour. The purpose is to sow and sustain the culture of science and technology early in the child's education, as well as produce school-leavers who have strong academic foundation, moral and ethical values, productive work skills and potential for life-long learning.

Structure of the New Basic Education Curriculum

The structure of the new 9-Year BEC is presented below. The following are the basic features of the new curriculum:

- The curriculum structure has three levels as follows:
 - lower BEC for primaries 1-3
 - middle BEC for primaries 4-6
 - upper BEC for junior secondary 1-3
- the subjects are grouped into core compulsory and elective subjects
- subjects and contents flow systematically from primary 1 through primary 6 to junior secondary 3.
- Business Studies is an elective for the junior secondary schools students

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- Curriculum contents are organized using the spiral approach to content development, spanning the entire nine years of basic schooling. This is to consolidate what has been learnt in earlier years

Structure of the New BEC

| BEC LEVELS | CORE COMPULSORY SUBJECTS | ELECTIVES |
|------------------------------------|--|---|
| LOWER BEC (Primary 1-3) | <ol style="list-style-type: none"> 1. English Studies 2. One major Nigerian language (Igbo, Yoruba Hausa) 3. Mathematics 4. Basic Science and Technology 5. Social Studies 6. Civic Education 7. Cultural & Creative Arts 8. Religious Studies (CRS or IS) 9. Physical & Health Education 10. Computer Studies/ICT | <ol style="list-style-type: none"> 1. Agriculture 2. Home Economics 3. Arabic <p>Note: Must offer 1 elective, but Not more than 2.</p> |
| MIDDLE BEC (Primary 4-6) | <ol style="list-style-type: none"> 1. English Studies 2. One major Nigerian language (Igbo, Yoruba or Hausa) 3. Mathematics 4. Basic science and Technology 5. Social Studies 6. Civic Education 7. Cultural & Creative Arts 8. Religious Studies (CRS or IS) 9. Physical & Health Education (PHE) 10. French Language. 11. Computer Studies/ ICT | <ol style="list-style-type: none"> 1. Agriculture 2. Home Economics 3. Arabic <p>Note: Must offer 1 Elective, but not more Than 2.</p> |
| UPPER (JSS 1-3) | <ol style="list-style-type: none"> 1. English Studies 2. One major Nigerian languages (Igbo, Yoruba or Hausa) 3. Mathematics 4. Basic Science 5. Social Studies 6. Civic Education 7. Cultural & Creative Arts 8. CRK or IRK 9. Physical & Health Education 10. Basic Technology 11. French Language 12. Computer Studies/ICT | <ol style="list-style-type: none"> 1. Agriculture 2. Home Economics 3. Arabic 4. Business Studies <p>Note: Must offer 1 Elective, but not more Than 3</p> |

Definition of Educational Media

Precisely, media refers to myriad methods for disseminating information. Media are carriers of information between source and receiver.

According to Ajelabi(2005:2). The more modern term used for apparatus; teaching aid; and audio-visual” is educational media or instructional materials” However, in this paper the term Educational media was used. Ofoegbu (2009) states that educational media are tools and devices through which stimuli materials that can be used to record, store, preserve transmit or retrieve information. The term refers to all forms of information carriers (Ofoegbu 2009).

Classifications of Educational Media

A variety of teaching materials exist for different subjects at all levels of the education system. However, whatever the nature of the educational media used by teachers, they serve to concretize abstract concepts and idea. They make learning more interesting, real and lively.

There is no rigid classification of media because a medium can be placed in more than one category. However, there are various approaches to the classification of educational media depending on the perspective of the person classifying the media. Educational media can be classified in any of the following ways:

1. Educational media can be classified according to the level of technology of materials: low technology or high technology.
2. According to the sense they stimulate: visual media (when they stimulate the eyes), audio media (when they stimulate the ear), and audio-visual media (when they stimulate both eyes and ears).

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| VISUAL i | ii | iii | AUDIO iv | V | vi | AUDIO VISUAL vii |
|---|---|--|---|--|---------------------------------|---|
| PRINTED AND DUPLICATE D MATERIALS | NON- PROJECTE D DISPLAY MATERIAL S | STILL PROJECTE D DISPLAY MATERIAL S | AUDIO MATERIAL S | LIVE AUDIO & STILLVISUA L MATERIALS | VIDEO MATERIAL S | COMPUTE R MEDIATED MATERIAL S |
| +Handouts | +Chalkboard Displays | Overhead Projector | Radio Broadcasts | Tape slide Programmes | Tape-film Programme | + Number Counting and Data processing Packages Substitute Tutor Packages Substitute laboratory Packages |
| Assignment Sheets | Marker board displays | Transparencie s and similar materials | Audio Discs | Tape Photographs Programme | Television Broadcasts | |
| Individualised study | Felt board displays | Slides | Audio tapes (reel to reel | Filmstrips with sound | Video tape recordings | Packages Substitute laboratory Packages |
| Materials | | | Cassette, discs) | | | |
| Resource Materials for groups exercises books programmed instruction etc | Hook-and -loop board displays | Filmstrips | Compact Discs | Radio vision Programme | Video disc recordings | Data-base systems |
| | Magnetic Board Displays | Microforms (microfiche Microfilm Micro disc | | Tape text Tape model | | |
| | Flipchart displays | | Tape-realia Tape Microscope Slide. etc | | | |
| | Charts-and Wall charts +Posters +Photographi c +Prints +Mobiles +Models +Diorama +Realia | | | | | |

Classification of Educational Media by Ajelabi (2005)

3. As projected media (e.g., slides, filmstrips, video, opaque projectors, etc), and non-projected media (e.g., still pictures, graphics, models, realia, etc),
4. As print (e.g., textbooks, journals, magazines, posters, etc.), and non-print media (e.g., chalkboard, models, realia, etc).
5. As hardware (e.g, projectors, radio sets, television sets, etc.), and software (pictures, maps; poster), etc.

**Non-projected
visual**

**Projected and electronic
media**

| Print Media | Non-print | Software | Hardware |
|--------------------|------------------|-----------------|----------------------|
| Textbooks | Chalkboard | Audiotapes | Audiotape recorders |
| Reference books | Flannel board | Videotape | Videotape recorders |
| Teachers' Notes | Models | Transparencies | Overhead projectors |
| Handbooks | Mock-ups | Slides | Slide projectors |
| Journals | Real things | Filmstrips | Filmstrip projectors |
| Newspapers | Simulation | 16mm films | Motion pictures |
| Posters | Games | 8 mm films | pojectors |
| Wall charts | | | |
| Magazines | | | |

Classification of Educational Media by Ughamadu (1992)

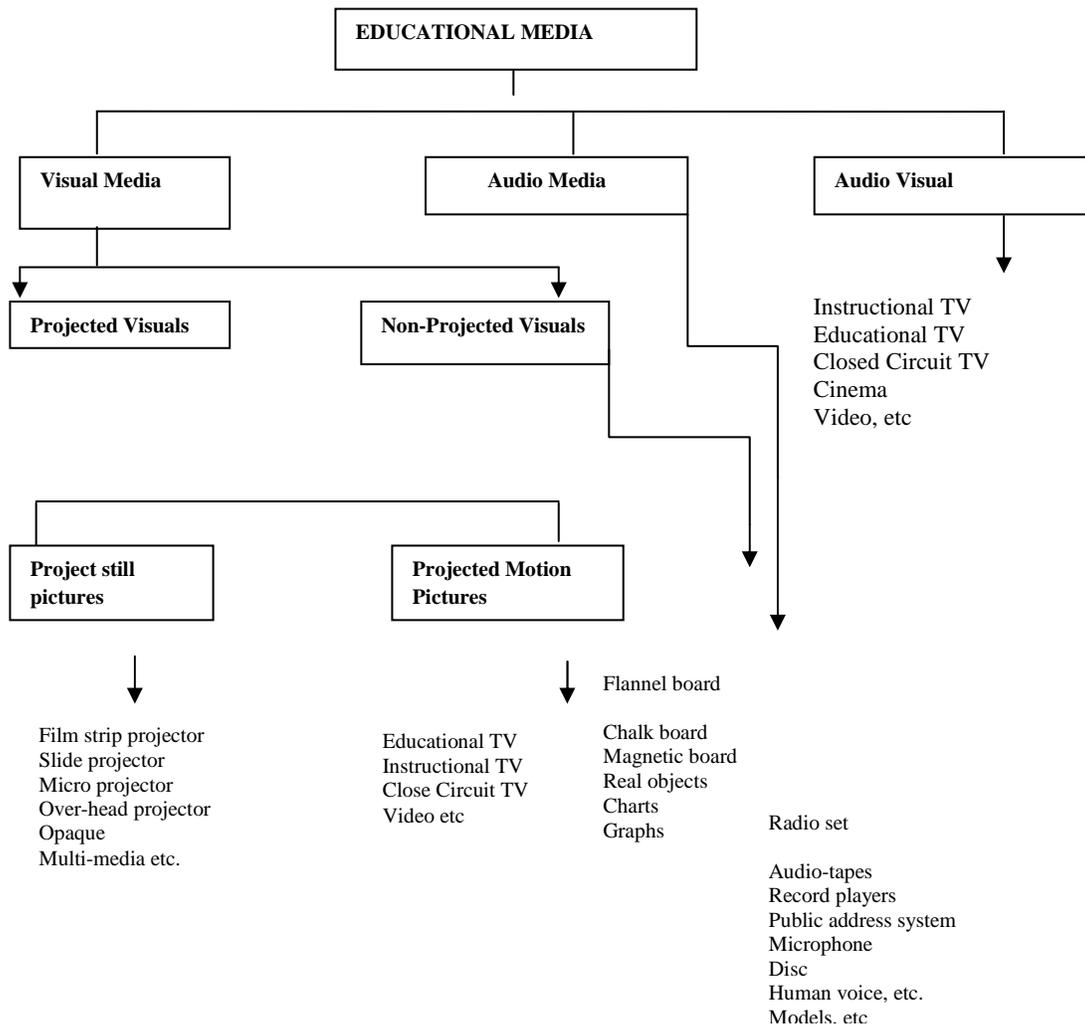
Non-projected

Projected audio & multimedia

| 2-dimensional | 3-dimensional | |
|----------------------|----------------------|-----------------------------------|
| Flat pictures | Model | Transparent still projected media |
| Graphic materials | Mock-ups | Overhead projection |
| Charts | Objects and | Micro projection |
| Diagrams | Specimens | Microforms |
| Posters | Diorama | Microfilm |
| Comics | Outdoor laboratory | Microfiche |
| Cartoons | Simulation and | Opaque projectors |
| | game | |
| Slides | Graphic boards | Motion pictures |
| | Chalkboard | Instructional TV |
| | Magnetic board | Close Circuit TV (CCTV) |
| | Flannels board | Audio machine, e.g. radio, tapes |

Classification of Educational Media by Okwo & Ike (1995)

According to Egbowon (1996), cited by Usman (2007), media classification is based on the senses they appeal to. Thus, they are classified into three classes, namely, audio visual and audio-visual, diagrammatically presented as:



Classification of Education Media by Usman (2007).

Audio materials

These refer to teaching and learning materials that appeal to the sense of hearing only. The radio and audiotapes are the most commonly used.

Visual materials

These are media materials that communicate through the eye or appeal to the sense of sight only. Examples of visual materials are flannel board, maps, wall charts, pictures, posters, overhead transparencies, models, computer, etc.

Audio-visual materials

These comprise of media materials that appeal to both senses of sight and hearing at the same time. They include television, multimedia computer programs, etc.

Printed Media

Non-projected

Projected audio & multimedia

2-dimensional

3-dimensional

| | | |
|-------------------|-----------------------|-----------------------------------|
| Flat pictures | Models | Transparent still projected media |
| Graphic materials | Mock-ups | Overhead projection |
| Charts | Objects and specimens | Micro projection |
| Diagrams | Diorama | Microforms |
| Posters | Outdoor laboratory | Microfilm |
| Comics | Simulation and game | Microfiche |
| Cartoons | Graphics boards | Opaque projectors |
| Slides | Chalkboard | Motion pictures |

Modifying two classifications, i.e. Ughamadu (1992), and Okwo & Ike (1995), Ofoegbu (2003) produced the following

Audio-Visual materials

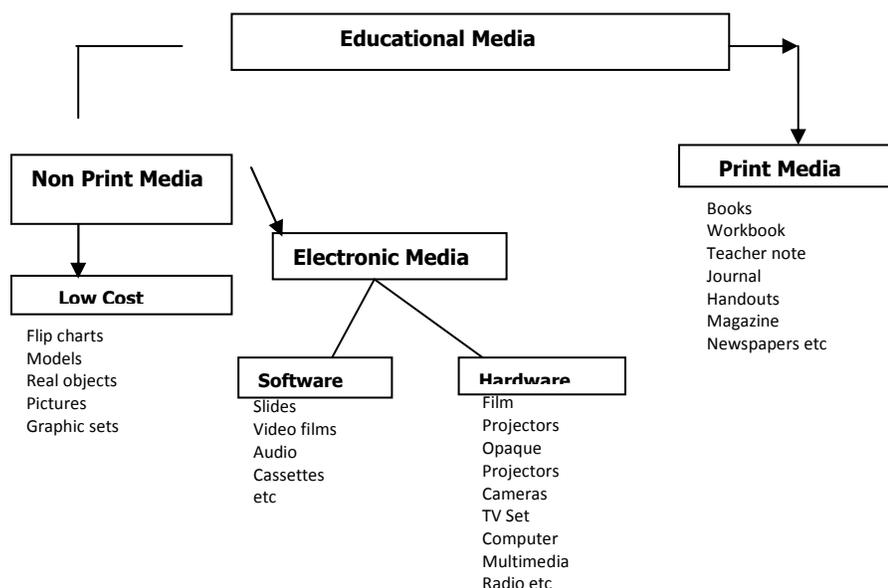
These comprise media materials that appeal to both senses of sight and hearing at the same time. They include television, multimedia computer programmes, etc.

Modifying two classifications, i.e. Ughamadu (1992), and Okwo & Ike (1995), Ofoegbu (2003) produced the following:

| Printed Media | Non-projected 3-dimensional | Projected audio & multimedia |
|----------------------|------------------------------------|---|
| 2-dimensional | Models | Transparent still projected media |
| Flat pictures | Mock-ups | Overhead projection |
| Graphic materials | Objects and specimens | Micro projection |
| Charts | Diorama Outdoor laboratory | Microforms |
| Diagrams | Simulation and game, | Microfilm |
| Posters | Graphics boards | Microfiche |
| Comics | Chalkboard | Opaque projectors |
| Cartoons | Magnetic board | Motion pictures |
| Slides | Flannels board | Instructional TV |
| | | Close circuit TV (CCTV) |
| | | Audio machine |
| | | Computers |
| | | CD-Rom |
| | | Internet, www, Video & Teleconf. |

Classification of Educational Media by Ofoegbu (2003)

Ukoha (1996) classifies educational media as non-print and print as follows:



Classification of Educational Media by Ukoha (1996)

Print media: Print media basically comprise all educational information carriers printed on paper. Print media materials include textbooks, journals, bulletins, posters, handouts, handbills, magazines, etc.

Non-print media: Non-print media include the electronic media, low cost media and real objects called realia.

Strategies for Production/Provision of Education Media Resources for Teaching

Teacher's ability, in terms of media production and provision is vital for making educational media available. If teachers are not capable of producing any media, those media will not be available. However, if teachers possess the ability and skills of media production, they would produce adequate and useful media materials.

According to Tella, Ajayi and Oluwoye (2004) some media can be produced through direct purchase, while some can be gotten free from public institutions or media houses, just for asking some others could, however, be made available by the teacher making them himself (improvisation) and yet others can be sourced from the community and/or resource person.

Danladi (2006) suggests some strategies through which educational media can be produced. They include:

- (i) improvisation
- (ii) Borrowing
- (iii) Ready made source
- (iv) Free- sources(v)Community Sources

Dhanarajan (2000) stresses that educational media materials have to be structured and sequenced in a way to cater for all types of learners. He suggests the following as means of producing/making provision for educational media materials by teachers.

- i. Government support to provide variety of materials. It can purchase and distribute educational media materials to schools.
- ii. Donations from wealthy individuals and Non-governmental organizations.
- iii. Community sources: The entire neighborhood of the school and community can be viewed as a source of educational media
- iv. The entire school environment can be considered as laboratory for students' learning and practical application of their knowledge
- v. Adaptability: Educational media should be adoptable to the prevailing environment or teaching situation. It should be adoptable to the level of development of the individual to all.
- vi. Economy: It should be economical both in terms of cost and time of use.
- vii. Durability: Educational media should be designed to last for quite a long time so that the material can be constantly and adequately available.

Viii Production by students: Students can be made to make educational media available through producing them themselves. This can be done through assignments and projects in their respective institutions.

Olusanjo (2012) suggested that in order to produce and make adequate educational media, government should provide all the needed resources, schools should solicit donations from external bodies, teachers can make them, themselves, schools can purchase the materials directly, and they can source them from resources person or the community. It is important to note that production of teachers (improvisation) should generally follow a simple guide and procedure.

Factors to Consider in Selecting Educational Media Materials

Your selection of instructional materials/educational media resources for teachers should meet the following criteria:

- The instructional materials and resources you select must be geared towards achieving clearly objectives of the lesson.
- The instructional materials you select must be suitable for the type of content being studied.
- The instructional materials you select must be suitable to learners' characteristics.
- Instructional resources you select for use in a lesson should be prepared to suit the classroom situation. For example, if you select an educational radio lesson which suits a lesson in your class but broadcasting time, what you can do is to use a simple transistor radio set with recording and playback systems to record the radio lesson at its airing time. Now, with the radio lesson in your audio cassette, you can prepare for its integration into your lesson at a time that suits the class.
- The content of instructional resources must be accurate and genuine.
- Select instructional materials that support the methods and learning activities.
- Encourage the learners to use a variety of instructional materials.
- Ensure availability of the selected instructional materials.

Conclusion

Educational Media can be grouped as projected and non-projected. Projected visuals required equipment and electricity while non-projected visuals only require basic materials and skills. Your focus should be on production of non-projected visuals for ease of sourcing materials locally. Teacher education programme should be structured to equip teachers for the effective performance of their duties. Information and Communication Technology should be incorporated into all teachers training programmes in order to successfully meet the country's educational challenges.

Recommendations

The following recommendations were made to enable teachers produce educational media resources for the teacher's using locally resources.

1. Government should make provision for a special fund to be known as Education Support Services Special Fund (ESSSFUND) to be used to provide necessary services and facilities in teacher training institutions.
2. Teachers should be empowered through periodic capacity building programmes such as a conferences, seminars, training workshops etc to enable them learn techniques, skills and methods not only if integrating educational media in teaching and learning but also of producing educational media using locally available resources.
3. Efforts should be made by the authorities responsible for teachers training to provide well equipped Educational resource centre in all schools to cater for the educational media needs of the teachers, and students. The centre should be adequately equipped with modern media facilities to cater for the production and use of educational media.
4. Authorities of each teacher training Institutions should provide in-house training on the production of educational media locally for their teachers irrespective of their years of experience and cadre to enable them over come any challenges found in the development of any educational media material.
5. Teacher training institutions should collaborate with various professional organizations an educational media to train and re-train their teachers to acquire skills or educational media production and utilization.

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