15

OPTIMIZATION OF AFFORDABLE ARTY TEACHING AND LEARNING MATERIALS/RESOURCES

OTOBO, Audu O. A. / IDAHOSA, Harrison

Department of Visual and Performing Arts, Faculty of Arts University of Maiduguri

Abstract

The paper posits that there are numerous benefits which the effective optimization of arty tuition materials can bring into the education system in Nigeria. It is not adequate for the teachers / facilitators to decide to embrace the use of tuition materials in their education, there has to be a complementary support from the school administration by way of providing the necessary infrastructural support, finance, reward system and support services. There should be a consensus among practitioners for the creation of a school Tuition Materials Services Program to meet the required administrative support that can be provided. The Tuition Materials Centre should be the core of the institutions material services programme. Through the Tuition Material Centre, facilities will be planned out, made available and stored efficiently for efficient distribution and retrieval system.

Key Words: Optimization, Affordable, Arty Teaching, Learning, Resources

Introduction

In education's continuing mission of meeting the needs of learners, a perceptible shift from 'orthodoxy,' long standing process of reading, writing, counting, text memorization skills that may have been appropriate for the medieval clerks are giving way to skills of analysis, correct and current approach that are considered desirable in today's modern culture (West, 1997, Thomas, 200). Proficiency with words and numbers is insufficient and must be supplemented with additional basic skills as new and promising technologies permeate activities of daily living.

Through all stratum of the nation's educational system, and for all known and existing educate (school) types, tuition resource or teaching and learning materials/resources are an indispensable issue in the realization of goals. The term 'teaching and learning arty materials/resources' would be taken to represent all the physical materials, imports, products, improvised, constructions, gadgets, aids, tools and reminiscent of, which teachers and facilitators utilize to underpin the impact of unwritten expressions in the teaching-learning process. This learning will use the phrase 'teaching-learning resources as an option to materials/facilities.

The commonness of teachers-oral expressions in the pedagogical cycles involves only the learner's sagacity of hearing, which put into practice could be mind-numbing after a while. The exploitation of resources' (materials) facilities on the other hand, calls into play the sagacity of sight (viso-spatial) and touch (manipulo-spatial). The number of senses involved in tuition process, the more fixed the learning that results; thus it is thought in the Chinese didactic thinking that:

We hear, we forget:

We see, we keep in mind,

We do we comprehend.

The use of affordable teaching-learning materials pledges more effectual learning as the learner, in adding to simply hearing, also sees and does. It is consequently indispensable not to have the materials/facilities in our tertiary institutions, for them to be efficiently browbeaten in the pedagogy.

Predictably, array of materials (resources) exist for different arty subject matter or schedules, at different educational levels. Whatever the nature of materials/resources used by the teacher or the facilitator it is understandable that resources serve, among other things, to concretize theoretical concepts and ideas. They make learning more reminiscent, enthralling, more real and animated. They smooth the progress of retention of learnt content and help the teacher/facilitator to preserve energy by limiting utilization of unwritten words, that's why it is often said that "a picture is worth a thousand words."

Tuition (materials) facilities exist and can be obtained in a number of ways. They may be purchased, donated, produced, improvised, fabricated, constructed or may exist within an environment as junks to be recycled or as permanent features, structures or institutions. However, they may be attaining, it is important to make the best use of the materials when they are available and affordable. It is the purpose of this learning to examine how best exceptional oriented (arty) schools and institutions can utilize the

materials most favorably. In doing so, we shall first of all identify various types of materials (equipment) or materials/resources that are available and affordable for use by teachers, facilitators and learners. We shall then briefly highlight how the materials may be obtained, before discussing how to make the best use of materials/resources.

It is probable to classify tuition equipment'/resources in number of ways. They may be apparent according to the levels of technology - low level technology or high-level technology materials; according to their sagacity: they stimulate- visual equipment, and audio-visual equipment for effusive chores. They may also exist as projectuals and non-projectuals material; as printed and non-printed materials and the like.

Contemporary learning's is characterized by a lot of challenges which have necessitated the use of innovative teaching-learning taxonomy. By innovative teaching-learning taxonomy it is meant that a structured combination and utilization of people, materials, facilities, automated equipment and procedures which interact to achieve the desired tuition goals. Consistently, the need for meaningful investment in education is the basis for such innovative learning taxonomy which requires more than the "orthodox" (traditional) teacher to directly transmit information to the learner. In stance of this learning, tuition material is the same thing as educational standard which means the media born of the communication revolution which can be used for instructional purposes alongside the teachers, textbooks and the blackboard (AECT, 1979; Ukoha, 1996; Carney & Levin, 200, Ikwuemesi 2005). Conversely, tuition materials are communally classified according to their distinctiveness. Thus the most attested classes of tuition materials\resources are as follows:

- 1. **CONCRETE** (Automated)
- 2. SOFTWARE (Consumables)
- 3. TUITIONAL PACKAGES (Self teaching facilitates)
- PROJECTED VISUALS (Audio Visuals, Overhead Projector, Intercom/ Cinema etc) 4.
- PRINTS (Books, Publications, Journals, Handouts Encyclopaedias etc) 5.
- 6. NON-PRINTED (Real Objects, Specimen, Mock-up etc)
- PROIECTUALS (Physical Features etc) 7.
- ARTY MATERIALS (Graphic, Textiles, Ceramics, Fine Art, Art History and Art Education).

The above with reference to classes or categories of tuition materials/facilities consists of several items which space will not consent us to itemize now. Conversely, we shall name a few paradigm categories.

TABLE 1 **CATHEGORIES OF ARTY TUITION MATERIALS**

FINE ART MATERIALS EXAMPLES CATEGORIES S/N CONCRETES 1. **EASEL** 1. Radial Studio Easel: manufactured from beach wood this easel

- can be tilted backwards and forwards and the centre joint allows
 - the canvas to be returned to the horizontal position. Fitted with extra-large locking wing nut. Weight: 7.25kg. Size: 1560, 200, 76 (1930mm)
- a)
- 2. Folding Studio Easel: a heavy duty oiled beach wood featuring a twist-lock knob for easy adjustment to canvas height. Incorporate pallet holder and base stabilizers
- b) Weight: 6 kg). Height: (1730mm)
- Sketch-box Easel; a combined colour box and easel in oiled beach 3. wood cleverly design so as to enable use for any kind of painting. Incorporates a one drawer cabinet and wooden pallet.
- Weight: 6kg) Height: (845mm). c)
- Coventry Table or Artist Table Easel; this strongly made oiled wooden table has an adjustable support and takes canvas up to 610mm high, the canvas position can be set to suit either a backward or forward position.
- d) Weight: (1kg) Height: (95mm)
- 5. Canvas Carrier; specially developed oiled beach wood, canvas carrier that can accommodate two canvases of (508mm). Weight: (340g) approximately.

- Metal folding Sketching (out-door) Easel; this styling 6. incorporate grip-type fixing handle that allows for positioning to suit either oil or water colour painting. Weight: (2.27kg) Height: (740mm) e) 1. **Durham Studio Easel**: A solidly built oiled beech wood easel. The base of the canvas fit in a rest which forms a pigeon hole to store brushes, colures etc. Weight: (17kg) Height: (137mm). **Workshop Equipment** Auto-air compressor: Sturdily constructed and designed especially for use in studio workshops. With spraying and airline equipment/ h) Robust hammers: i) Metal cutting ban saw (Horizontal/Vertical-3 speed cutting arm) 4" Angle grinder i) Sheet metal Shear (cutting capacity 1.6mm0 k) 1) Sport-welding machine (automated) Hydraulic iron bender(automated/Manual) m) n) Gas welding (with oxygen and Acycertarlene gas) o) Hydraulic lifter (manually Operated) p) Multi-head wood engraver (automated) Metal measuring and rolling machine q) Punch and Flange Tools (Ideal for crimping and hole punching) r) **PROJECTUALS** Overhead projector/transparencies a) Slides projector/screen b) Desktop computer/screen c) PowerPoint/facilities e) Printer fì Photocopier **TUITION PACKAGES** Self-teaching (making do) 1. Models (sentient or inert) 2. 3. Moulds 4. Prototype **PRINTS PUBLICATION** 1. How to draw Books 2. Portraits and how to do them 3. How to Paint with Acrylics, Watercolours, Tempera and Oil 4. Drawing in Charcoal 5. Sculpture for Beginners
 - 6. Metalwork's for Beginners
 - 7. Ouick Sketching
 - 8. Common Faults in Oil Painting
 - 9. Experimental Painting etc
 - 10. Journals etc
 - 11. Handouts
- 5. CONSUMABLES

2.

3.

4.

Artist's Oil and Water Colours

- Artists' Oil Colures Sketch Boxes (fitted with colour tubes, Brushes, Dipper, Linseed Oil, Turpentine, Palette Knife, Wood Ply Platte and charcoal)
- 2. Colour Sets
- 3. Water Colours
- 4. Oil Mediums and Vanishes for Oil Painting
- 5. Oil Mediums and Vanishes for Watercolour Painting
- 6. Crayola Colours Sets" Stay wet" Palette (Plastic Palette)
- 7. Tempera Colures (Tempera mix can be converted to a water-resistant glaze by the addition of PVA medium).

Artists' Brushes

- 1. Round Brushes; a well-formed brush for water colure made from sable heir with good pointing qualities. Available sizes 1, -12.
- 2. Sable Fan Brush: for blending colours in landscape and portraiture. Available sizes 2-6.
- 3. Filbert-Shaped Ox Halt Brushes made from high-quality ox-heir-suitable for oil and water colure painting Available sizes 4, -12.
- 4. Nylon Brushes; Ideal for oil painting, the fibres are firmly set in a thick laid seamless ferrule on a long handle Available sizes 1 -2.
- 5. Hog Brushes; Flat Hog Bristle Brushes these are some of the best hog brushes made. They have curved-in interlocking bristles of fine wearing qualities suitable for oil or acrylic painting. Available sizes 1-16
- 6. Student Brushes (Flat Bristle, Round Bristle, Filbert Shaped and Nylon Brushes they are school-quality that designed for rigorous use. They are designed to hold colours well.

Painting Accessories

- 1. Palette Knives Straight Blade made from finest Sheffield Steel 76mm, 102mm, and 127mm.
- 2. Cranked Blade (Finest Sheffield Steel)76mm, 102mm and 127mm
- 3. Palette Knives Straight Blade (Stainless steel) 76mm, 89mm and 114mm.
- 4. Painting Knives (Stainless steel) Long trowel shape, Short trowel shape, Narrow peer shape Medium peer shape and Small peer shape
- 5. Portfolios (with flaps can be improvised)
- 6. Wooden Pallets (improvised from fine mahogany or flexible white plastic)
- 7. Artist Chinaware (plastic saucers)

Painting Surfaces

- Prepared Canvas-Acrylic Primed
 An acrylic primed cotton duck canvas of even texture.

 Recommended for murals and large-scale painting.
- Prepared Canvas-Oil Primed
 Quality 'x' made from finest linen, with all line yarns of close
 construction. Suitable for all purposes
 Quality 'G' Woven from high quality pure linen, all line yarns
 medium texture. Suitable for most techniques
 Quality 'H'
- 3. Unprimed Canvas: Ouality 'x' Raw linen and 'P' pure cotton
- 4. Oil Sketching Boards: A "canvas grained primed board 'with assorted sizes.

Papers for Drawing and Water Colures

- 1. Bockingford Artists' Superior water colure Paper.
- Education Paper (Sugar Paper) Available in assorted colures and sizes.
- 3. Newsprint (Sheet size) Available in quires and reams.
- 4. Fabriano Ingres Papers (90 gm2)
- 5. Available in assorted colures.

GRAPHIC DESIGN MATERIALS

CONCRETE

- 1. Auto-Kon 1000 Scanner: A Laser scanning machine (Teaching Equipment).
- 2. Grant Projector: Enlarger for photographic and artistic colure separation. (Teaching Equipment)
- 3. Etching Printing Machine (Equipment)
- 4. Collotype Printing Machine: Available as Automated, Manual. (Teaching Equipment)

- 5. Colour Idexo- Printing Machine
- 6. Letterpress Printing Machine.
- 7. Gravograph Engraving Machine (Teaching Equipment)
- 8. Glass Laser Engraving Machine (Teaching Equipment)
- 9. Metal Embossing Machine (Teaching Equipment)
- 10. Swivel T-shirt Heat Transfer Screen Printing Machine (Teaching Facilities)
 - Professional Cameras (Cannon EOS 600) With EF-S18-55mm (Photographic Teaching Equipment)
 - Configured Computer System (Computer Graphic)
 - Dark Room Equipment /Facilities.
 - Airbrush (Facility)
 - Airbrush Compressor (Facility)
 - Adjustable Drawing Table (Furniture)
 - Air Compressor (Workshop Equipment)
 - Multi-Head Wood Engraving Machine (Workshop Equipment)
 - Craft and Hobby Tools (Facilities')
 - Thermograph Machine (Teaching Device)
 - Flexography Printing Machine (Teaching Equipment)

PROJECTUALS

- 1. Overhead Projector / Screen (Facility)
- 2. Slide Projector / Screen (Facility)
- 3. Power Point Facilities
- 4. Printer
- 5. Photocopier

TUITION PACKAGES

- (i) Prototypes (Improvisations)
- (ii) Models
- (iii) Lettering Techniques 'and Aids (Teaching Aids)
- (iv) Mounting and Laminating Techniques
- (v) Photographic Techniques
- (vi) Planning for Visual Media Production
- (vii) Media Design: Ideas and Techniques
- (viii) Illustrating Techniques and Aids
- (ix) Colouring Techniques
- (x) Human Skeleton
- (xi) Puppetry

PRINTS

How to Draw Books

- (i) Drawing Simplified
- (ii) How to Draw Head
- (iii) How to Draw Head from Life
- (iv) Figure from Life
- (v) Anatomy
- (vi) Comics
- (vii) Animated Cartoons
- (viii) Animation
- (ix) Perspective Drawing
- (x) Technical Drawing
- (xi) ABC of Lettering
- (xii) How to Paint with Airbrush Techniques
- (xiii) How to Animate Film Cartoons
- (xiv) Figure Anatomy for fashion Design
- (xv) Simplified Steps to Graphic
- (xvi) Nudity and Graphic Design
- (xvii) Quick Sketching
- (xviii) Figure Drawing for All its Worth
- (xix) Journals

- (xx) Handout
- (xxi) Print Master-Image Index
- (xxii) Architectural Graphics

CONSUMABLES

- 1. Beginners Kit: 24 assorted pastels, dusting brush, 57ml bottle of fixative, spray diffuser, knead able putty rubber and leafleted Hint for Beginners.
- 2. Block Printing Colours (Water and Oil based) are suitable for various printing processes using wide range of block materials these may include Wood, Lino, Metal or even Potato.
- 3. Screen Printing Colours (Water Soluble) designed for rapid drying and easy cleaning of equipment using soap and water.
- 4. Screen and Fabric Printing Colures (Acrylic based) this versatile range of printing colures has been formulated so that the popular printing techniques can be under taken. The acrylic base gives permanent results on both paper and fabric and bright and light fast pigmentation.
- 5. Poster Colures: are highly pigmented forms past colures that produce a smooth matt finish suited to design work.

CONCREAT

TEXTLE DESIGN ART MATERIALS

- 1. Standardizes Printing Table (With Printing Accessories) a precision-made edges locking wind nut. Melamine cover, soft printing top
- 2. De-Waxing Machine (Wax Remover)
- 3. Die-Piet (Manual/Mechanized)
- 4. Automated Looms: Motions are derived from two steel shafts, known respectively as top and bottom shafts
- 5. Flour Looms (with weaving accessories Warp beam, Lease rod, Herald, Reed, Picking stick, Warp, Mash, Sheds, Shuttle and Woven cloth
- 6. Table Looms (With Accessories)
- 7. Assorted Tailoring Machines (Leather, jute, synthetic leader and fabrics)
- 8. Screen Printing Equipment: Especially for printing display materials, printing on unusual surfaces- is called "silk screen"
- 9. Mechanical Ox dying Railings (Automated)
- 10. Automated Cuprammoium (Teaching Facilities)

It is indispensable to state at this point that the use of educational conciliators in the teaching-learning processes in Nigerian schools and institutions cannot be said to be absolutely new. Statistics exist when resource (materials) such as twigs, marbles, dowels, cowries, craniums, shingles, rocks and seeds were used widely in teaching and learning to educate (Kogi, 2006, Barsh, 2006, Hajara, 2008, Lemke, 2012). What are conceivably new are the hi-tech modernism and products such as television, radios, computers and telephones which are now being used in teaching-learning procedures in Nigerian schools.

Benefits of Arty Equipment

The invariable increase in the need for and use of arty materials in schools, colleges, universities and the various educational institutions lies in the fact that they are useful. It has been stressed that the basic assumption about tuition materials (both hardware and software) is that they can be used to enhanced and improve teaching and learning (Presidential Commissions on Instructional Technology, 1970). One vital justification for the use of tuition materials\resources in teaching-learning process is that it possesses the ability to stimulate the sagacities of hearing, seeing and touching senses of the learner (Miller, 1957). Miller says:

Teaching at any level requires that the student be exposed to some form of stimulus. Learning cannot take place in vacuum... the instructor must be

able to produce stimuli having enough strength and definition to get through the student... the student must notice and /or hear something. In a large classroom, auditorium or in the studios students in the back rows must be able to hear, if there is something to see, they must be able see it or if there is something to feel, they must be able to feel it. By the use of contemporary technology, we can control the size of the visual image, amplify the sound and stage-manage control of the objects. We can control the rate of perceptible motion or show inaccessible thing or those that are remote in space or time.

In a practical sense, a tuition material has imperative position in the teaching-learning procedure. Foremost, from the viewpoint of teaching, tuition material can be used:

- i. Provide increased curiosity in learning.
- ii. Get hold of the learner's attention.
- iii. Strengthens written communication.
- iv. Brings professionalism and multi-resources to the pedagogical setting.
- v. Acquiesce all members of the group or class the opportunity to share a joint expertise.
- vi. Provides for direct communication to students with the reality of their communal and physical environment.
- vii. Provides liberalism for the learning of insubstantial or controversial subjects.
- viii. Exhibit in accessible processes, effusive arty abilities, actions, things and transformation in time, speed and space.
- ix. Demonstrate and illuminate non-verbal symbols and images, quantitative relationships, complex relationships, abstract concepts, spatial relations and special minutiae.
- x. Encourage greater acquisition and longer retention of accurate connections.
- xi. Provide openings for autonomous and individualized scholarship.

Within a realistic prudence, tuition resources (materials) have significant roles to play in the arty teaching-learning procedures. Jegede, (1994), Melnick, (2011), Romiszowski (1981) Ukoha, (1996), pragmatically, affirmed that tuition materials can:

- i. offer the instructor with a means for broadening his scholars' sphere understanding.
- ii. help the instructor to offer his scholars with meaningful source of information.
- iii. offer the instructor with interest-compelling spring boards which can launch scholars into frontiers' variety of intellectual behaviour.
- iv. offer the instructor to triumph over physical differences of presenting subject matter.
- v. Offer the instructor with the tools to carry out analytical testing research and curative works.

Finally, most tuition resources (materials) are in essence educational materials which can also be seen in the context of visuals and, consequently, in terms of their contribution to the visualization of the tuition process. Nworgu (1990), Ahmed (2017), Duncum, (2002), asserted that, visuals are indispensable elements in visualization which itself is a mental act and an integral part of the thought process. It has been recognized that we envision, dream, explore, systematize our thoughts, make value judgments and; solve problems by visualizing. More specially, we see thoughts in terms consortiums and clusters, movement and rotation, spatial and symbolic relationships, and large-scale demonstrations.

Strategies for Optimization of Affordable Arty Tuition Materials

The assortments of benefits of tuition material have been enumerated in learning. It must be emphasized that the effectiveness of any tuition materials is partly a factor of the ways they are designed, selected and utilized. Similarly, there cannot be any hard and fast rule about the design, selection and utilizing of tuition materials. What is required, therefore, are general guidelines that can be borne in mind to ensure the best optimization and affordability of tuition materials.

Criteria for Good Arty Tuition Materials

The subsequent criteria can be used to critic and ascertain the quality of any categories of arty tuition materials to be selected and used. A good arty tuition material is determined by a number of factors via:

- 1. Aptness: course objectives, studio practicals, lectures; appropriateness for a particular learning level,
- 2. Freedom: from preconceived notion, prejudice, distortion,
- 3. Currency: reflecting current thought /innovations,
- 4. Availability: obtainable when needed,
- 5. Appeal: euthenics, attention holding,
- 6. Technical eminence: simplicity, workability.
- 7. Affordability: within school budget curb.

Arty Material Support Facilities

Optimization of affordable arty materials on teaching-learning/facilitative process can be effective, unless there are a minimum and tolerable levels or quantity of the following support facilities, namely:

- 1. Lecture Halls
- 2. Seminar Rooms
- 3. Work Shop
- 4. Studios
- 5. Media Resources Centres
- 6. Exhibition Halls
- 7. Electronic Learning Centre
- 8. Out-door Learning (excursion facilities)
- 9. Libraries (Conventional, Audio-visual)
- 10. Open Spaces
- 11. Electricity (Power) Supply

Arty Tuition Material Selection

The selection of arty materials –learning and demonstrative proposes is one important step in the overall System Approach to instruction. The selection of arty tuition material, thus, should be guided by the following factors:

- 1. The Chore Factors: the type of arty learning objectives borne in mind.
- 2. The learner Factors: (I Q. physical abilities /disabilities age, sex, etc).
- 3. The Quality of Material- The criteria listed earlier should be used to determine the quality for any didactic teaching-process.
- 4. Material availability and affordability: Categorized namely;
- 5. Donated/Inexpensive Material
- 1. Commercially Produced Materials
- 2. Fabricated or locally produced Materials (Teachers/Students projects/improvising
- 1. Nature of Material Mode: should influence the choice i.e.
- 2. Size of learner Group
- 1. Independent Learning
- 2. Stimuli Interaction Needed
- 3. Drill Practice.
- 4. Availability and Affordability of Support Resources: should influence the support (men and materials) available in the teaching-learning system e. g.
- 5. Relevant and skill personnel
- 1. Appropriate Equipment(s)
- 2. Physical Facilities (Appropriate Quality)

Challenges of Arty Tuition Materials in Nigerian Tertiary Institutions

In spite of the numerous recompenses and benefits which the teaching-learning process can gain from arty tuition materials, the innovation appears not have been effectively integrated into most Nigerian tertiary institutions. This circumstance is due to numerous challenges which can be broadly classified into (a) What to use, (b) Where to get what to use, (c) How and what is affordable- can be put into optimal use.

Universally, the challenges facing the optimal utilization of arty tuition materials in Nigerian tertiary institutions include the following:

- (a) The cost of arty tuition resources, equipment and materials are typically high and sometimes unaffordable. In a situation of meager financial allocations, the innovation is bound to suffer due to the lack of adequate number of equipment and materials occasioned by poor and irregular funding.
- (b) There is a general lack of befitting arty infrastructural facilities for tuition in most tertiary institutions in Nigeria, apart from available traditional classrooms rehabilitated into studios and workshops. Tuition equipment/facilities require adequate and additional spaces for design rendition, reprography, fabrication (manipulo-spatial dexterities), production (prototype) and utilization of Audio-visual materials. There is also need for storage facilities. The lecture halls and studios are expected to be regularly lit with electrical out-lets, projected or screens and acoustic walls.
- (C) There is a general shortage of arty equipment and materials due to financial constraints and importation challenges as most of the technical advanced equipment are produced out-side Nigeria. Besides this general shortage, there is a deficient basic information about the accessible ones.

- (d) Lecturers/facilitators work-load is usually heavy in the conventional teaching mode. Such heavy teaching work-load does not allow for effectual integration of arty tuition equipment, materials/resources into our educational system.
- (e) The nature of examination or evaluation which are highly paper and pencil oriented predispose to inhibit the extensive or intensive use of arty tuition materials during the teaching-learning process.
- (f) There are the challenges of non-availability of professional and technical staff that can assist the teacher's/ facilitators in the effective use of arty tuition materials in teaching-learning process.

Summary and Recommendations

From all propositions, there are numerous recompenses which the effectual optimization of affordable tuition materials can fetch into education system in Nigeria. By way of summary of these benefits, studies have asserted that arty tuition materials/equipment may perform some super human tasks for exceptional teachers although each of the materials do not partake each of the roles (Love, 2011; Fleith, 2010; Kogi, 2006).

It is not adequate for the individual teacher to decide to embrace and use arty materials in their teaching. There should be a complementary support from the school or educate administration by way of providing the essential infrastructural support, finance, and reward system and support services. There is no one broad-spectrum technique of providing the essential administrative support for tuition material in institutions. However, there should be a consensus among practitioners of audio-visual technology that it is only through the creation of institutions Tuition Material Service Programme that the required administrative support can be afforded. The Tuition Material Centre should be the core of any institutions material service. The pedestal for such centre and programme can be found in the need to organize the institution to make tuition materials easily available to teachers/ facilitators and students. Through the Tuition Material Centre, facilities will be deliberated on, made available and stored competently for allotment and retrieval synchronization.

The service of the proposed Arty Tuition Material Centre has far-reaching implications for the planning and implementation of tuition material programme in schools. The following implications are laudable of note:

- 1. The Arty Tuition Material Centre should include the services of the institutions conventional library. They should be a need for a separate library, once the Arty Tuition Material Centre is equipped.
- 2. The Arty Tuition Material Centre should be centrally located so that it can serve the various components of the institution
- 3. The Arty Tuition Material Centre should be designed to provide space for the following activities:
- 1. Junk Area (Recycling, improvisation materials sites)
- 2. Material Stack Area
- 3. Multi-purpose Area
- 4. Individual Preview and Audition Spaces
- 5. Storage Area
- 6. Maintenance and Service Area
- 7. Production Area
- 8. Multi-purpose Learning (Evaluation Area)

The Arty Tuition Material Centre when fully operational would serve as a partnership for solving all the challenges affecting the optimal utilization of arty tuition material in the teaching-learning system

Conclusion

In conclusion, the benefits of arty tuition material to teaching-learning process call for the optimization and the affordability of their selection and utilization by the school's system. The perception and operation of Arty Tuition Material Centre should be designed to harness benefits through the minimization of the challenges intrinsic in such exercise.

- Secondary Schools in Borno state- Nigeria: M. Ed Dissertation Department of Curriculum and Instruction, Faculty of Educational Sciences. University of Maiduguri
- Barsh, A. W. (2006) Home Environment and Artistic Creativity: (M.A Dissertation). Collage Arts and Sciences Georgia State University.
- Duncum, P., (1990). A Case for an Art Education of every day Aesthetic: Studies in Art Education, 40 (4), 295-311.
- Hajara, M. (2008). The Effects of Improvisation on Art in some Secondary Schools in Lere local Government Area of Kaduna State: B. Ed Project: Fine Arts Department Ahmadu Bello University Zaria
- Ikwuemesi, K. C. (2005) Art Training in Nigeria PhD Syndrome. Retrieved htt://allafrica. Com/stories/200509080756.html Accessed: 05: 09/16, Time: 08:45 a.m.
- Jegede, O. (1994). African Cultural Perspective and the Teaching of Science: In J. Solomon, and G. Aikehead, (Eds.). STS education:
 International Perspective on Reform. New York: Teacher's College Pp. 120-130.
- Kogi, E. B. (2006) Improvisation of Creative Arts Materials in Post Primary Institution in Federal Capital Territory (FCT) Abuja: B. Ed Project, Fine Art Department Ahmadu Bello University, Zaria
- Lemke, T. (2012). The Effect of Home Environment in School. Retrieved from: http://www.ehow.com/ifo-790166effcts-

- home-environment-scho. Acessed:04:/09/15, Time07:45a.m.
- Love,A.(20011),ConduciveClassroomEnvironment:Re trivedfrom:www.slidesware.net/anglic,love /conducive-classroom-environment. Accessed: 01/02/15, Time: 08:00 a. m.
- Romiszowski, A. J. (1981): Designing Instructional Systems, London; Kogan, P. 66-69)..
- Miller, N. E. (Ed). (1957), Graphic Communication and the Crisis in Education. In collaboration with Allen, W. A .et. al. *AV Communication Review* Pp. 51-120.
- Melnick, S. A, Wutmer, J T., & Strickland, M. J. (2011), Cognition and Student learning through. *Art Education Policy Review*, 112(3) 154-154-162. Doi; 10.1080/10632913.2011.566ioo
- Ukoha, A. (1996): "Educational Media and Instruction" in B.A. Ogwo (Ed.) Curriculum Development and Educational Technology. Makurdi: Onaivi Printing & Publishing Co Ltd.
- Nworgu, B. A. (1990) Evaluating the Effect Resource Material Types Relative to Students Cognitive Achievement, Retention and Interest in Integrated Science: PhD Thesis, Education Department University of Nigeria, Nsuka
- West, T. G. (1997). In the Mind's Eye. Anheerts, Nyi Prometheus Books 8. (Pp. 15 3-5).
- Thomas, L. F. (2005) Bill Gates Speaking to a Meeting of U. S. Governors as reported by Thomas L. Friedman in the Arizona Republic May 4th, 2005.