

## Research Article

# IMPROVISATION OF INSTRUCTIONAL MATERIALS AMONG TEACHERS OF LOWER LEVEL EDUCATION IN NIGERIA

\* H.S. Aliero PhD.

Department of Education, Faculty of Education Kebbi State University of Science and Technology, Aliero

Received 20<sup>th</sup> August 2020; Accepted 18<sup>th</sup> September 2020; Published online 12<sup>th</sup> October 2020

### ABSTRACT

The aim of this research is to examine some of the important features in the improvisation of instructional materials at lower secondary level and given important consideration to some of its vital parameters such as concepts, contribution to learning, its significance, rationale, characteristics, types, how and where to use it, desirability, techniques, merits, problems militating against improvisation and some critical factors affecting improvisation of instructional materials in schools. This is with a view to bringing to light an important area in the teaching learning process which has been relegated to the background. Finally, conclusion and recommendations were offered.

**Keywords:** Improvisation, Instructional Materials, Lower level Education.

### INTRODUCTION

Hornby (2010), submitted that improvisation means to make or do something by using what is available usually because you do not have what is really needed. It could also be described as the provision of alternative to all things. Hadgsan (1978) noted that it can be viewed as substituting, replacing or altering creative arts materials for particular function. Ango (1986) improvisation means a lot of things to many people; as it is rightly conceived it means:

- Substituting something in place of another to serve a unique function.
- Altering the shape, size or outlook of a thing to serve a function other than the originally used for or intended to.
- Originating or formulating a totally new tool, instrument, material or device for serving a particular function.

Ema, Isha, and Asayi (2001) submitted that local production of materials may also mean improvisation. They noted that their improvisation material can be produced by the teacher for his/her pupils/student if and when imported or commercial ready-made ones are not available or within the reach of the school/teacher. It is believed that local production of material helps to develop the visual literacy of the learners, as they participate in the production with teacher. It also helps to develop the pupils' imaginative thinking as they participate in the collection and production of the materials. Local production of improvisation of instructional materials involves teacher and the learner in realistic problem solving activities which stimulate effective learning and produce suitable materials, which may not be available in commercial quantity or adequately produce through importation. For example, in the creative art, the teacher can improvise many of the required materials. Example, specimen, chart, magazines, pictures, work papers, collected from the environment, cartoons, part brushes, branches of trees, plant leaves, flowers and other materials from the environment can be effectively used for classroom work.

\*Corresponding Author: Aliero, H.S.

Department of Education, Faculty of Education Kebbi State University of Science and Technology, Aliero.

### Concept of improvisation

Adams (1980) submits that teachers are already overworked, so it important for them to identify and make use of only the best resources that are available to them. Furthermore, the term could mean an activity embarked upon or initiated by a teacher to address problem of scarcity of instructional materials for the purpose of teaching and learning either due to logistics or economic reasoning. Abah (2007) noted that improvisation of instructional materials is the act of using alternative materials and resources to facilitate instruction, whenever there is lack or shortage of some specific first hand instructional materials. Majorie and Brown, (2004) cautioned teachers not to capitalize on non- availability of instructional materials as an excuse to rationalize poor teaching and learning. According to Tukur, (2012) improvisation in education is the art of creating or modifying a material or object in place of the original. This is usually done where the 'proper' material is unavailable or unaffordable at a time. Improvisation can be seen as a technique of originating a totally local tool, instrument, and material or modifying an already existing one for a particular purpose (NTI 1990). Improvisation is a very important technique in all human enterprise. It can vary from situation to situation much referred to as resourcefulness and it is a very important aspect of our educational practice.

### Rationale for the Improvisation of Instructional Materials:

Ango (1986) observed that it is difficult to provide all the instructional materials required for teaching and learning e.g hardware and software for educational development. We, therefore, need to improve that by devising a means of improving relevant and available indigenous material to achieve our goal. Improvisation can take care of any instructional materials, work materials and even non-availability of necessary instructional materials. Understanding the role of improvisation requires imagination of the type of teaching and learning that is likely to take place should the classroom material for teaching education technology or creative arts also be absent. The teacher should know how it will be taught in the absence of practical materials? Lack of funds has bedeviled all factor of education development including teaching and learning. Relevant improvisation material and equipment becomes difficult to afford as they are very costly to buy. Similarly, teachers for special children are therefore

expected to be inward looking, creative, and ready to produce relevant improvised materials for their use. Some of the improvised materials in Nigeria are too foreign and sophisticated for our pupils without special need; there is the need to produce local materials for the benefit of our special learners (Ogbondahi, 2008). Emaiyeju in Eku – Anyang (2004) justified the use of improvisation because of large student population and scarcity of instructional materials as well as high cost of imported instructional materials. Inability of the improvisation material to be enough for students with special needs. The special teacher is expected to produce similar material that are indigenous to complement the few available areas. It saves money and time and brings about innovation.

### Roles of Improvisation of Materials to Learning

Onyeyemi (1991) noted the contributions of improvised material to learning as follows:

- They contribute to permanent and transferable learning.
- They also increase teachers' confidence if properly used.
- They provide a concrete basis for conceptual thinking and reduce verbalism.
- Contribute to growth and meaningful vocabulary development
- Provide experiences not easily obtained through other materials
- Stimulate self-activity
- Provide more for free reading
- Increase concentration
- Makes learning more permanent

### Need and Desirability for Improvisation of Materials

Improvisation of instructional materials are capable of accomplishing the following if effectively used:

Stimulate both the teachers and students and enhance their sense of application and understanding of the exercise. Factorial information will be made easily available to the users which will help to upgrade and enrich the experimental background of the students. Improvisation of instructional materials provides teacher with interesting and compelling platforms for conveying information, as they motivate learners to want to learn more and more. It makes teaching and learning easier and less stressful. They are indispensable catalyst of social and intellectual development of the learners. (Olumorin, Yusuf, Ajideigba and Jekayinka, 2010). Improvisation of instructional material serves as a channel through which message, information, ideas and knowledge are disseminated more easily. The teacher talk less while passing information in the class in a more effective and meaningful manner (Ogbondahi,2008). Improvised material will improve the lesson effectiveness especially, when the locally available materials are use and when improvised materials would serve the same function as the standard lesson. Learning in general can only be successful when there is reasonable availability and proper selection of instructional equipment, facilities and supplies. However the fact still remains that it is impossible to purchase or acquire all equipments and materials. This made it imperative for teachers to think of how best to make use of their skills to improvise in order to achieve the objective of their lessons.

The following procedures were suggested for effective improvisation of instructional materials:

- Identify the item to be improvised, students to understand the basic principles involved in its working;
- Design and make rough sketch of the item;

- Make list of the materials needed;
- Construct the item according to the given proto type;
- Test and re- evaluate through use;
- Redesign if need be and make mass production if necessary.

### Characteristics of Improvised Materials

- Improvisation materials should be large enough to be seen by the students to who they are used.
- Improvisation materials should be meaningful and always stand to serve a useful purpose.
- Improvisation materials should be up to date in every respect.
- Improvisation materials should be simple, cheap and can be improved
- Improvisation should be accurate and realistic
- Improvisation should be according to the mental level of the teachers.
- Its purpose is to be informative and not just entertainment.
- Improvisation should helps in the realization of structured learning object
- Improvisation should be used in many lessons and at different class levels.
- Improvisation should be useful for supplementing the teaching process but cannot replace the teacher.

### How and Where to Improvised Instructional Materials

Improvisation of materials should be simple and brief and related to the objectives of teaching. Therefore, the teacher must use proper improvised materials according to the interest and ability of the students. Improvisation of material should be well prepared and planned in advance, after proper selection based on the physical and mental ability of the pupils. Improvisation should be colorful and have direct impact on the lesson. It should be meaningful and interesting. It is generally used in the following situations:

Where the subject is too far, to be actually seen.

Where the subject is too small to be seen by the whole class.

Where the subject is too big to be brought into the class. Where the improvisation process is slow, the material constructed should be well understood by the teachers. Indigenous local content should be used in order to make student appreciate or comprehend the improvised material.

Materials made using foreign concepts and methods should be avoided with the Identification and utilization of the best local resources available. The teacher should be able to identify only the basic materials to be used for improvisation. Inferior materials that have little or no quality should also be avoided. The teacher should imbibe the culture of saving improvised materials as much as possible. Materials such as pictures, magazines, calendars, pictures, periodicals, milk and tomatoes tins can easily be obtained from hard ware shop, radio - repair shop, auto-mobile repair shop, bicycle repair shop for equipping the school laboratory and other related offices. The materials must be large, clear, and neat and posses the ability to attack the sense of the pupils as the purpose is to stimulate their senses. If the teacher is unable to draw, he should feel free to trace the picture out and find the help of another teacher. Quick white - board sketch could be equally useful.

### Types of Improvisation

Ofoefora (1999), noted that we have two types of improvisation they are:

**Improvisation by Substitution:** As the name implies, this is where already available local materials are used in place of equipment that is not available.

**Improvisation by Construction:** In this case the teacher and the student construct a new material entirely to teach a lesson, when the required instructional material and equipment is not available or cannot be easily obtained.

### Merits of Improvisation of Instructional materials

Some of the merits of improvisation of instructional materials include: It enables the learners to make proper use of their environment. This is because in improvisation we mainly make use of the available materials in the environment. The use of local material reduces the financial expenditure in buying ready-made materials. The development of resource materials for instruction leads to discovery of new knowledge. When learners or community members assist in improvising a resource material such as donating personal material, this will improve school community relationship. They provide material not easily obtained through other means and contribute to efficiency, depth and variety of learning. Improvisation helps to bridge the gap between theoretical knowledge and practicability. When the teacher and learner succeed in improvising an instructional material, there is a high sense of achievement and talents in the students are discovered.

### Problems militating against improvisation of Instructional materials:

A major problem militating against improvisation in Nigeria is lack of adequate professional training of staff. It is important to note that improvisation demands adventure, creativity, curiosity and perseverance on the part of the teacher. Such skill are only realizable through welfare-planned training programs on improvisation. Another factor that will hinder the realization of the objectives of improvisation is lack of funds. Improvisation whether they cost less than standardized manufactured ones or not cost money. This money is not usually readily available to teachers. Improvisation can also expose teachers and students to some hazards.

### Techniques in Improvisation of Instructional materials

By techniques, we mean the different strategies employ by a teacher in the construction of improvised materials. Teachers are capable of constructing materials provided they are given the necessary encouragement and motivation. The following techniques can be used in the improvisation of materials.

**Adoptive Technique:** This implies that teacher assign a function to a material that is not originally made to serve that purpose with little or no changes from the original.

**Initiative Technique:** This is the construction of a material based on the existing model. Example using corn stalks to construct a truck marked on wheels or milk tin or clay for modeling of toys etc.

**Inventive Technique:** This comes about as a result of teachers' resourcefulness and innovation. No reference is made to any existing model which provides bases for conventional materials. We should note that, no lesson is well taught without the use of instructional materials. Therefore, to be able to teach or present good lesson, teachers should have the knowledge of improvisation of instructional materials.

### Factors Affecting Improvisation of Instructional Materials

Technical and human factors are the two main impediments affecting the successful improvisation of instructional science materials. While the technical factor is concern with the question of degree of accuracy and precision with the equipment, the human factor has to do with the teachers' skill and abilities in developing the appropriate learning experiences for the learner. Improvisation demands that teachers use resources available in their immediate environment. The training of teachers can be organize in form of workshops and seminars using available local resources to perform classroom experiments. Many teachers do not realize that they have plenty of resources available for laboratory experiment, despite having knowledge of the scientific principles. A lot of teachers lack confidence in their abilities to design and improvise their own instructional materials within their environment.

### CONCLUSION

Improvisation of instructional material is recognized as contributing significantly in the teaching and learning process. Therefore, there is the need for collaborative efforts by all stake holders to facilitate the improvisation of instructional materials in our schools.

### RECOMMENDATIONS

Federal, State and Local Government Authorities should provide maximum encouragement and motivation in the production of improvised instructional material to be use in schools. Training and re-training of teachers should be intensified through seminars, workshops, and in-service training programs on how to improvise instructional materials. Communities, schools and teachers should assist in the improvisation of instructional materials in schools.

### REFERENCES

- Abah, A. (2007) Science Exposition. Oju Journal of Science Technology and Mathematics Education Oju: School of Science, College of Education Oju., 1(2) (9-11).
- Adams, R. (1980) Resources in Art and Craft. London: Evan Mantogue House.
- Ango, M.L. (1986) Basic Science Laboratory, Jos; Ehindero (NG), Limited.
- Anyang, D.E. (2004). Utilization of available materials in Agricultural Science Teaching in Selected Schools in Area Inspectorate of Education Lafia, Nasarawa state. PGDE Project ABU Zaria.
- Ema O., IshaN.I. & Asaji D.T. (2001) Educational Technology Concept and Practice: Jos Ehindero Nig. Limited.
- Hodgsan, J. (1978) "Improvisation and Literature in Drama and Theatre".
- Hornby, A.S. (2010) Oxford Advanced Dictionary of Current English. Oxford:University Press.
- Mojorie, L. and Brown C. (2004).The Education process in Health Education and Recreation.New prentice Hall LTD. London.
- National Teachers Institute (1990). National Teachers Institute, Kaduna Nigeria. Students Manual
- Ogbondahi, L. (2008) An Appraisal of Instructional Materials used to Educate Migrant Fishermen's Children River State, Nigeria International Journal of Scientific Research in Education 1(1) 13 – 125.
- Olumerin, C.O., Yusuf A., Ajidagba, U.A., & Jekayinkta, A.A., (2010) Development of Instructional Materials from Local Sources for Art-Based Courses, Asian Journal of Information Technology 9 (2) 107 – 110.
- Onyeyemi, B.O. (1991) Techniques for Providing Visual Improvisation Material for Teaching in Junior Secondary Schools in Imogie Trends and Research in Education Technology. Ibadan V. books.
- Tukur, A.K. (2012) Teachers guide to improvisation and utilization of Instructional Materials.A.B.U. Press LTD Zaria.