

ASSESSMENT OF INSTRUCTIONAL MATERIALS UTILIZATION BY TEACHERS AND STUDENT- TEACHERS IN THE CLASSROOM: THE ESSENTIAL PARAMETERS



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Introduction

Instructional materials are very important to every teacher. They are tools that help the teachers or students teachers to convey their messages to their learners perfectly, efficiently and effectively in the classroom. The message in the class is about the learning tasks they intend to impart on the learners. A teacher going to the classroom without these essential and very important tools, may end up stressing up himself/herself in his/her efforts to get across the learning tasks to the learners more effectively and ensuring there is effective learning by the learners. Instructional materials not only motivate the learners to learn, they also promote the learners interest and aid remembering of what the learners have learnt.

The teachers and student teachers should be aware that there is no topic they want to teach that does not have corresponding instructional materials. No matter how abstract the concepts to be taught, instructional materials that will help the teacher or student-teacher to successfully teach such topics or concepts are sufficiently available. Therefore, the teachers or the student-teachers need to be very inquisitive, creative and highly knowledgeable in identifying the appropriate instructional materials that will help them to teach any lesson brilliant, effectively and successfully. In doing this, the teachers or student-teachers should have adequate knowledge of production, improvisation and selection of most relevant instructional materials.

Statement of the Problem

The use of instructional materials is very central and inevitable in the art of teaching and learning. It is the duty of every teacher to provide appropriate instructional materials for any lesson they want to teach based on certain criteria of instructional materials selection in the classroom. It is almost very difficult to really assess the efficiency and effectiveness of the utilisation of the instructional materials used by teachers and the student-teachers because most assessors of the teachers and the student-teachers are not adequately informed about the criteria to use for such assessments because they are not experts in the field of Educational Technology. For

instance, most teachers' training institutions have inadequate number of educational Technology experts that can do this kind of assessment most adequately and efficiently because their lack of expertise skills and competencies. In the Inspectorate Division of the Federal and State Ministries of Education this acute shortage of Educational Technology experts is also well pronounced. Therefore, it is very difficult for proper and adequate assessment of teachers and student-teachers adequate and effective utilisation of instructional materials in the classroom. This is because most assessors are not adequately informed about the essential parameters for such assessment. It is because of this deplorable situation that this paper has put forward some assessment parameters for assessing the use of instructional materials by teachers and student-teachers in the classroom or during teaching practice exercise.

Concept of Instructional Materials

Instructional material is any material or object the teacher brings to the class with the purpose of integrating into his art of teaching in order to make the lesson well taught and highly explicit to the learners. In the past, instructional materials are popularly referred to as teaching aids but due to the development in technology and expansion in knowledge horizon, it is observed that whatever material that the teacher brings to the class for the purpose of improving teaching and learning is not an aid but integral part of the whole lesson. Therefore, the nomenclature 'teaching aids' is no more in use in the modern days. But in its place, instructional material or instructional media are now popularly used. It is advisable that all practising teachers should take note of this change in the nomenclature.

Abifarin (2015), described educational media or instructional materials as both human and material resources which can be used in the classroom to teach in order to make teaching and learning more explicit, thought provoking, interesting, efficient and effective. Obielodan (2015) also defines instructional media as a collection of materials including animate and inanimate objects, human and non-human materials that a teacher uses in the teaching and learning situation to concretise learning experiences so as to make learning more exciting, interesting and interactive to all categories of learners with the ultimate aim of achieving the learning objectives.

Abifarin (2015) identifies some classifications of instructional materials given by various school of thoughts. For instance, some classifies them into visual, audio, audio-visual and realia. Some classifies them into big and small media while others classifies them into print, non-print media and hard and softwares. The knowledge of these categories of classification is essential in order to be able to evaluate their utilisation adequately.

Parameters for Assessing Utilisation Instructional Materials in the Classroom

Evaluation is very important for assessment of the effectiveness, efficiency and adequacy of utilization of any instructional materials the teacher or student-teachers are using in the classroom. Teachers or student-teachers can be knowledgeable in their methodology and highly deficient in the resourceful and effective use of instructional materials. The resultant effects of this may be poor dissemination of ideas and knowledge to the learners. It is therefore very essential for experts to frequently assess the utilization of instructional materials by teachers and student-teachers to ensure their proper usage in the classroom. This will bring about effective and efficient teaching and learning in the classroom.

The following parameters are very essential in assessment of effective and efficient utilization of instructional materials by the teachers and students in the classroom.

- i. **Perfect knowledge of the concept of instructional materials:** Misconception of the concept of instructional materials by the teachers or student-teachers could affect their utilization. Teachers and student teachers misconception of what instructional materials are, may affect their utilization of instructional materials adequately in the classroom. Therefore in assessing the utilization of instructional by the teachers and students-teachers, we should be concerned about whether they actually have in-depth knowledge of the concept of instructional materials. Their misconception of the concept of instructional materials will definitely lead to poor utilization of such instructional materials.
- ii. **Knowledge of classification of instructional materials:** The use of appropriate, relevant and effective instructional materials will depend on the ability of the teachers or student-teachers to classify such instructional materials appropriately and adequately. When they are able to classify them into their various types, they will be able to choose the best for every lesson based on their relevance and appropriateness. For instance, some lessons can be better taught with visual aids, audio aids, audio-visual aids or realia. The deep knowledge of the teachers or student –teachers on these classifications will promote effective teaching and learning. Therefore, in assessing the utilization of instructional materials by the teachers and student teachers, the assessors or a team of assessors have to consider their knowledge of the classification of the instructional materials
- iii. **Instructional materials design and production:** Another criterion for assessment of the use of instructional materials is the issue of instructional media design and production. It is important for every teacher and student teacher to have very deep knowledge of instructional materials design and production. In the production of instructional materials, the first step is to come up with appropriate designs. It is when the design are perfect that the actual production is carried out successfully. For instance, a faulty design will lead to a very bad instructional media production. Therefore, in assessing the utilization of instructional materials

by teachers or student- teachers, the assessor should thoroughly look at the design and the production of such instructional materials. For instance, is the design and production takes care of the principle of clarity, appropriateness, colour harmony, creativity, inquisitiveness, appropriate labelling and the rest of others, the assessor should adequately consider all these principles.

- iv. **Objectives and contents of the lesson:** Relevance of the instructional materials to the objectives and contents of the lesson is very important. The choice of instructional materials is normally based on the objectives and contents of the lesson. When instructional materials are not relevant to objectives and contents of the lesson such a situation is regarded as misuse of instructional materials. The teachers and the student-teachers should be adequately aware of this necessity. Ajayi-Dopemu (1988) further stressed this point by stating that the selection of instructional materials should be relevant to the objectives guided by the overall curriculum objectives. He cited an example that the objectives of the instruction for which materials will be used may be learners acquisition of skills, knowledge, competencies or desirable behaviours in a learning task. This may be in rhyme and rhythm in poetry, reading techniques in language arts, means of communication, political organization of old Oyo Empire or Benin kingdom, the process of harvesting a particular crop and the rest of others. In evaluating the utilization of any instructional material by the teacher or student-teachers, this essential utilization parameter must be considered properly.
- v. **Production Techniques:** There are production techniques for producing good and useable instructional materials. No matter how good the designs of the instructional materials could be, if they are not produced with appropriate production techniques, there is going to be a default. Talabi (2009) identifies three major production techniques. These include, imitative production technique which involve the teachers or student-teachers producing instructional materials adopting and using models and techniques which other producers have used. There is adaptive production technique which requires the creation of new forms of product from already existing product. Then creative invention technique which involves someone's ability to create his or her own instructional materials with high sense of inquisitiveness, creativity and originality. In assessing instructional materials, utilisation in the classroom, there is the need to evaluate the instructional materials' production based on adherent to the appropriate production techniques by the teachers or the student teachers.
- vi. **Instructional materials appropriateness to the level learners:** A major assessment parameter for instructional media utilisation by the teacher and the student-teacher is the appropriateness to the learner's educational level, maturity and other psychological and socio-cultural considerations. Atolagbe (2016), also asserts that whichever the type of instructional materials to be selected and used in the

classroom must take cognizance of some learners' characteristics such as age, experience, sex, maturity, population, academic level, among others. In assessing the utilization of instructional materials by the teachers or student-teachers, there is need for the assessor to find out whether the instructional materials they are using or about to use is appropriate to the learners' level and other learners characteristics.

- vii. **Environmental variables for utilization:** In modern days, most modern instructional materials such as the internet facilities, computers, electronic boards, interactive boards and other teaching equipment and machines can only function well and effectively with appropriate and adequate environmental variables – most importantly electricity supply. Atolagbe (2016) corroborates this very important parameter by indicating that some instructional materials required confirming whether or not certain facilities will be available for their utilization. For instance, if the instructional materials utilization require electricity, what is the assurance that the supply will be available and constant? Will generating set be available in place of unavailability of constant electricity supply? There are other environmental variables such as customized building, special cooling system, special maintenance requirements and the likes. In assessing teachers and student-teachers utilization of instructional materials, it is very essential to assess whether all the necessary environmental variables for their use are sufficiently available.
- viii. **Availability of Instructional materials operating personnels:** The utilization of some instructional materials requires additional personnels such as technologists or operators to assist the teachers or the student-teachers in using some of the electronic media such as the internet facilities, computers, projectors, electronic boards and others. There is the need for the technicians, instructors, facilitators, technologists and some other experts to assist the teacher or student-teachers in effective and very efficient utilization. These personnels are called supporting staff. In assessing teachers or student-teachers' utilization of instructional materials especially those that require the services of other supporting staff, it is essential the evaluators find out whether these supporting staff are readily available when the teacher or the student teacher will be using those instructional materials.
- ix. **Consideration for learners' learning style:** Individual differences exist among the students in the same class. This makes the students in the class to learn at different pace. Ajayi (2018) corroborated this by the assertion that each child is peculiar in terms of the way he/she learns and if a child is taught using techniques consistent with their learning styles, they learn more easily, faster and can retain and apply concepts learnt more readily to future learning. In evaluating the assessing of instructional materials by the teachers and student teachers, it is essential to find

- xiv. **Ability to operate modern equipment and machines:** Technology has changed several things in the world today. The influence of technology is seen in every aspect of man's endeavour such as medicine, architecture, engineering and even development and use of these modern teaching equipment and teaching machines. There are several modern electronic instructional materials which need competencies in computer and digital literacy to operate. It is very essential that the assessors of the utilization of instructional materials should assess teachers and student-teachers' competencies in the utilization of all these new instructional materials.

Conclusion

Much attention is not given to the assessment of teachers' use of instructional materials during their daily activities or during a routine inspection by the supervising authorities. This is the situation with the assessment of the student-teachers during their practical teaching exercise. In a situation where avenue is provided for the assessment of the instructional materials, the assessors may not set down many criteria to be followed for such assessment. This has resulted into poor design, production, selection and use of instructional materials by the practising teachers and the student-teacher alike.

In this paper, a number of assessment perimeters for evaluating teachers and student-teachers utilization of instructional materials have been discussed. Such parameters include perfect knowledge of the concept of instructional materials, knowledge of classification of instructional materials, knowledge of instructional materials design, objectives and contents of the lesson, appropriateness of the instructional materials to the learners level, environmental variables for utilization, availability of supportive personnels, consideration for learners learning style, functionality of the instructional materials, principles of appropriate selection, ability to improvise perfectly and effectiveness of the instructional materials. It is therefore important for all assessors to see that these instructional materials assessment parameters should always be followed when assessing the teachers and student-teachers utilization of instructional materials in the classroom, this will promote their knowledge in the art of adequate, appropriate and efficient use of instructional materials for better and quality teaching and learning.

Recommendation

Despite the fact that the use of suitable and very relevant instructional materials are essential for the successful execution of teaching and learning. It could be observed that most practising teachers and student-teachers on teaching practice do not attach much importance to such usage of instructional materials in the classroom. It is therefore very important to check this trend.

This paper therefore recommends that more Educational Technology experts should be engaged in assessment of instructional materials by the practising teachers and student-teachers in the classroom and during teaching practice exercises. The Ministries of Education should regularly organise refresher courses, seminars and workshops for the school inspectors on the assessment instruments. Since there are scanty Educational Technology experts in most of the teachers' training institutions and tertiary institutions, there is the need for the people in charge of teaching practice to frequently organise orientation programmes for teaching practice assessors based on the assessment instruments for instructional materials usage. Experts in Educational Technology should be engaged in the organising of the refresher courses, seminars, workshops and conferences. In the same vein, they should be saddled with the training of assessors during teaching practice orientation usually organised for assessors before the commencement of the teaching practice exercise.

References

- Abifarin, M.S. (2015). *Modern Approach to Educational Technology*. Lagos: Macmillan Publishers.
- Abifarin, M. S. (2019). *An Insight to Micro-Teaching*. Lagos: Midan Associates Ltd.
- Ajaipi-Depemu (1988). *Fundamentals of Educational Technology*. I. Agun & I. Imogie (eds). Ibadan: Y. Books.
- Ajayi, D.T.W. (2018). *Educational Technology: Teaching, Learning and Communication*. Abuja: Ya-Byangs Publishers.
- Anikweze, C. M. (2014). *Essentials of Instructional Technology (Revised Second Edition)*. Kaduna, Abuja, Makurdi: Gofat Ventures Ltd.
- Atolagbe, S. A. (2016). *Learning to Teach Others*. Agbouda: Tobistic Printing and Publishing Ventures.
- National Teachers Institute (1990). National certificate in education/distance learning course book on primary education. *Solid Stories-Cycle 3, Module I*. Kaduna: National Teachers Institute.
- Obielodan, O.O (2015). Instructional media: Typology and relevance in instruction. In M. O. Yusuf and S. A. Onasaya (Eds.) *Critical Issues in Educational Technology*. Ilorin: Department of Educational Technology, University of Ilorin.
- Salisu, S. O. (2011). *Educational Technology: A Theory and Practice Course Text*. Lagos, Ikeja Ltd.
- Talabi, J. K. (2008). *Educational Technology; Methods, Tools and Techniques for Effective Teaching*. Winneba: Koes Publisher.