

EDUCATIONAL VALUES OF UTILIZING INSTRUCTIONAL MATERIALS IN THE TEACHING AND LEARNING OF ECONOMICS IN NIGERIA SECONDARY SCHOOLS

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Abstract

The job of the teacher is to transmit educational contents to learners seamlessly. This can be done better when the teacher utilises instructional materials. Instructional materials are aids used by teachers during the teaching and learning process that help students assimilate the educational content. Unfortunately, there is a paucity of these instructional materials in schools today. Where they are available, they are either in short supply or are grossly inadequate. Many scholars have attributed the poor performances of students to several varied factors. Prominent among such factors is the non-utilisation of relevant instructional materials. This study adopts a descriptive approach to analysing the educational value of utilising instructional materials in the teaching and learning of economics in secondary schools in Nigeria. Thus, utilising instructional materials would enhance the teaching and learning process on the one hand and improve students' performances on the other. It concludes that stakeholders in the education sector should, as a matter of importance, place more priority on the provision of relevant instructional materials to make the teaching and learning process more real, and where such materials are unavailable, improvisation of such materials could be done by teachers when possible.

Keywords: Educational value, Instructional materials, Teaching and learning, Economics

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1 Introduction

Instructional materials encompass a diverse range of resources and tools, both tangible and intangible, as well as human and non-human, that educators employ to facilitate the attainment of desired learning outcomes. Often known as teaching aids, these materials are designed to support students in comprehending subject matter more effectively, thereby rendering the learning experience more authentic, engaging, logical, and enjoyable. The primary objective of instructional materials is to streamline the teaching process. These resources encompass visual and audio-visual aids and may exist in both physical and digital formats. Their utilisation infuses vitality into the learning process by motivating students to engage actively in their studies. When applied effectively in the classroom, instructional materials possess the potential to enable teachers to convey new concepts with clarity, leading to improved comprehension among students. Nonetheless, as emphasised by Kadzera (2006), it's crucial to recognise that instructional materials serve as a means to an end rather than as the ultimate goal. Nevertheless, even though valuable teaching resources can never substitute for the teacher, teachers leverage them to attain their teaching and learning objectives. Instructional materials, therefore, serve as the tools and instruments employed by teachers within the classroom to enhance the efficiency of the teaching and learning process.

Economics is housed in the social sciences. It is primarily concerned with the study of human behaviour and what influences such behaviour. In contrast to many other social sciences, economics employs rigorous scientific methods to draw conclusions. As a result, it incorporates various approaches, including mathematics, graphical representations, and a body of theoretical frameworks. For students, particularly at the secondary school level, studying economics without the aid of instructional materials can often make the subject seem abstract and challenging to grasp. Studies have indicated that students tend to comprehend and retain information more effectively when they are exposed to visual or experiential learning in addition to auditory instruction. Teaching economics to learners at the secondary school level seems difficult to comprehend without the availability of instructional

materials. It is common knowledge that there is a shortage of teaching resources when it comes to teaching economics. This has made the subject look more difficult to learners; hence, the perception held by many students that economics is a difficult subject. According to Abdu-Raheem (2011), the lack of access to and insufficiency of instructional materials are significant factors contributing to the inefficacy of the education system, potentially leading to poor academic performance among students in schools.

Many scholars have alluded to the fact that in teaching economics, a deficiency of printed economic literature (regarded as instructional materials) is prevalent in numerous government-owned secondary schools (Obasi, 2020). However, exploring locally accessible resources as a substitute for the paucity of instructional materials in secondary schools now rests squarely on the teacher since the available instructional materials are not forthcoming from the government. In this way, the teacher's resourcefulness must come to bear. The ability to effectively communicate and provide efficient lesson delivery to the students is key if the instructional objectives of the lesson must be achieved. This does not only require the exquisite knowledge of the teacher, but the utilisation of teaching aids is a necessary condition for effective teaching.

Given the nature of economics, there seems to be a convergence of thoughts that it lacks sufficient instructional materials. It is for the aforementioned reason that this study is premised. In other words, the study sets out, among other things, to expose teachers and possibly would-be student teachers to the relevance of instructional materials and how to effectively utilise them for the purpose of achieving instructional objectives.

1.2 Objectives of the study

The overarching goal of this research is to assess the educational benefits associated with the use of instructional materials in the teaching and learning of economics in senior secondary schools in Nigeria. More precisely, the study aims to:

1. Investigating the relevance and utilisation of instructional materials in the teaching and learning of economics in senior secondary schools

2. Examine the place of improvisation in instructional materials to improve the efficacy of the teaching and learning process in economics.

This study adopted a descriptive approach in analysing the educational values of instructional materials in the teaching and learning of economics as a means to enhance the teaching and learning process on the one hand and improve students' performances on the other.

2 The concept of Economics

Economics is a subject that gives a scientific explanation of how individual households, business organisations, societies, and nations attempt to satisfy their wants in a world of limited resources (Iyoha, Oyefusi, & Oriakhi, 2011). According to the Oxford Dictionary of Economics, economics is the study of how scarce resources are or should be allocated. It is the study of how rational economic agents make choices or decisions in the utilisation of scarce resources to meet ever-growing wants. Although economics is domiciled in the social sciences like sociology, anthropology, psychology, etc., it also adopts scientific methodologies in arriving at inferences. More so, the inductive and deductive means of analysis are central to economics. There are two major branches of economics, namely; microeconomics and macroeconomics. Whereas, microeconomics focuses on the study of individual households, firms, industries, markets, etc., macroeconomics is concerned with the study of the economy in aggregate terms.

Aromolaran (2006) noted that economics education employs three primary languages for teaching and conveying economic concepts. These languages encompass theoretical or verbal, geometric or graphical, and algebraic or mathematical modes of expression. Therefore, instructional materials are essential tools necessary to conveniently translate these languages for effective teaching and learning. For instance, beyond mere verbal transmission of economic knowledge, graphs and all forms of charts appeal to the visual sense of seeing and make concepts as real as can be interpreted to secondary school students. While mathematics in economics helps in explaining the relationship among variables as well as modelling human behaviour for empirical testing, drawing inferences, and predicting future outcomes. The knowledge of economics provides insights into solving

real world problems. Galbraith (2021) asserted that economics is fundamentally a discipline focused on policy matters. The author further emphasised that economics is concerned with addressing issues related to social organisation and the overall welfare of society, regardless of whether these issues are on a large or small scale. The economics discipline enables learners to acquire analytical and critical knowledge of economic theories and principles, helps them to make rational and informed decisions, maximises the use of scarce resources, and understands the workings of their immediate environments and the world economy, among others.

2.2 The concept of instructional materials

According to Okorie (1979), instructional materials encompass the pedagogical field that deals with the creation, choice, and utilisation of educational resources. These resources extend beyond printed text and include instructional technologies, materials, and devices employed within learning contexts to enhance the communication of knowledge, attitudes, and ideas alongside written or spoken words. Instructional materials play an essential role in the teaching and learning process across all levels of the educational system. They serve as a valuable medium for delivering instruction within the classroom. According to Onyia (2012), instructional materials encompass any tools or devices that aid instructors in lesson preparation, teaching, and enhancing students' understanding of the subject matter. As stated by Wambui (2013), these materials can be either locally produced or imported and have the potential to significantly enhance the effectiveness of a lesson when used thoughtfully. The importance of instructional materials lies in their ability to help students accurately visualise and comprehend the content being taught. Teaching aids, in various forms, assist students in their learning journey in multiple ways.

2.3 Features of good instructional material

Instructional materials are anything other than what the teacher himself uses during the teaching process for effective teaching and learning. Ayodele-Ogunleye and Otutu (2006) summarised some of its features, including the following:

1. It must provide facts. That is, it must not convey inaccurate or erroneous information.
2. The suitability of instructional materials should align with the learners' age, intelligence, prior experience, and background.
3. The information shown on the teaching aid must be brief and have a connection with the topic to be taught.
4. The writing on the teaching aid must be clear, bold, and readable from any part of the classroom.

2.4 Types of instructional materials

Many learners find listening to long lectures uninteresting and boring due to a lack of teaching aids that make the learning real to them. This is the place for instructional materials. Scholars have used different nomenclatures to differentiate instructional materials so much so that they have been named traditional and modern instructional materials, while others have aligned themselves to print and non-print instructional materials. Let us consider some of these instructional materials.

Traditional instructional materials

Traditional teaching aids were so much in use by teachers and instructors before technology became the order of the day. Although these aids, so described as traditional, are still in use to date but are now complemented by modern aids. Examples of traditional teaching aids include textbooks, chalkboards, books, flashcards, maps, charts, newsletters, journals, magazines, bulletins, and others. For instance, one cannot teach economics without the use of writing boards, as it is easier to teach quantitative (mathematical calculations) aspects on the board.

Modern instructional materials

Technological advancement came with new means, such as teaching aids, to make teaching, and learning more real and exciting. According to Ikpesu and Appah (2021), instructional materials encompass a wide range of tools

available to teachers, enabling them to enhance the learning experience, making it both captivating and memorable. More recently, modern instructional materials have also been called multimedia instructional resources or materials. This is because they help, especially in teaching large and overcrowded classes. The strength of multimedia technology lies in its ability to engage multiple senses in students, making it a multisensory experience.

Additionally, multimedia is interactive, allowing users to have control over the content and flow of information. According to Ogunbote (2006), multimedia adds a fresh dimension to the teaching and learning process because concepts become more accessible to present and understand when verbal explanations are complemented with images and animations. Thus, these instructional materials encourage students to actively engage in their own learning process, transforming them from passive recipients of educational content into active participants. Accordingly, modern instructional materials can be categorised into three primary groups according to their sensory attributes: audio, visual, and audio-visual (Akpan & Okoli, 2017). Let us take a cursory look at each of them.

Audio Media

Audio-media refers to instructional tools primarily designed to engage the sense of hearing. Some examples of audio-media include public address systems, tape recorders, radios, electronic voice messages, and various other auditory aids. Auditory learning helps students enhance their listening skills. This approach may involve presenting an economic concept through audio means, having students listen to it attentively, and then assessing their understanding through questions or discussions. Listening to the radio or a voice message are examples of audio aids. Indeed, learners can enhance their listening and comprehension skills through auditory learning, as audio stimuli have a positive influence on brain development.

Visual-media

Visual-media encompass instructional tools primarily designed to engage the sense of sight. These tools include both projected visual aids and

non-projected visual aids.

Visual aids serve as valuable tools for teaching through visual means, enhancing clarity in educational content delivery. Teachers often utilise materials such as graphs, charts, projectors, models, diagrams, slides, and more to illustrate their lessons effectively. For example, economics teachers can employ these visual aids to demonstrate various types of charts and graphs using improvised instructional materials. In recent times, online teaching has gained prominence through presentations through slides, pictures and other visual media. It assists students in grasping concepts more readily because they are often clearer and more easily understandable than textbooks alone. This forms lasting memories in learners.

Audio-visual media

Audio-visual aids refer to instructional materials that enable learners to both see and hear simultaneously. Examples include educational television, videos, and films. The use of audio-visual aids incorporates videos, films, documentaries, and other multimedia resources to enrich the teaching process. Occasionally, students might encounter challenges if concepts are solely conveyed through words or images. However, they often find it easier to grasp when they can observe the content in real-time through audio-visual means. Today, there is a lot of teaching online where economic concepts are explained using charts, graphs, and mathematical analyses to help learners. Projections have become very useful in presentations of assignments, term papers, projects, theses, and dissertations. The integration of audio-visual materials offers learners a dynamic and immersive learning experience, enhancing their comprehension of lessons.

Furthermore, audio-visual aids encompass the utilisation of computers for educational purposes. The prevalence of computers in nearly every secondary school today enables students to engage with technology from a young age, facilitating their learning through digital resources. Obasi (2020), opined that it is essential for libraries to be well-equipped with contemporary printed materials and non-printed resources, including audio-visual materials. This ensures that the teaching and learning requirements of economics teachers and students in secondary schools are met effectively.

2.5 Selection of instructional materials

The major challenge bedeviling most secondary schools to a large extent is the lack of provision of instructional materials by the government and school proprietors. Similarly, many teachers also face problems related to their limited exposure and restricted access to modern instructional materials and facilities. This issue is particularly prevalent in community secondary schools, especially those in rural areas, where access to information and communication technology (ICT) is often lacking. According to Ogbaji (2017), the use of instructional materials in the teaching and learning process is crucial for achieving educational goals and objectives. However, when these materials are not readily available, it can hinder learners' academic performance.

Most of the time, the teachers provide the instructional materials themselves. This is because the government's provision of these aids is grossly inadequate. This scenario has resulted in a lack of utilisation of instructional materials by many teachers. Others who use instructional resources most of the time improvise these aids to enhance their teaching. According to Abimbade (1997), the central objective of instructional materials in the teaching and learning process is to enhance the effectiveness of teaching and facilitate the learning experience. The author added that instructional materials cannot completely replace the role of a teacher in the classroom. While the relevance of instructional materials cannot be overemphasised, it must be noted that different aids may apply to different subjects. For instance, for Creative and Theatre Arts students, when teaching about a specific type of dance, a 'talking drum' may suffice. In the same vein, a world map may appeal to a geography student when being taught the rotation of the earth or the different planets, but this may not be so for a political science or economics lesson. Therefore, the teacher must be able to conjecture the type of instructional material that would suit the subject vis-a-vis the lesson to be taught. According to Mills (1997), when selecting instructional materials, the teacher should note the following:

- a. They should serve as aids and not dominate the instructional process.
- b. They should be designed with simplicity, eliminating non-essential details.

- c. When possible, they can be coloured with two or more bold colours, as long as the colouring enhances clarity and distinguishes facts.
- d. They should complement and enhance the understanding of real objects rather than replace them.
- e. They should be presented to students at the appropriate moment and then stored away once their intended purpose has been fulfilled.

In the selection of instructional materials for an economics lesson where teaching aids are not available, the teacher may have to improvise alternative aids. In economics, most of the information is presented using tabular, pictorial, graphical, and mathematical analyses. Charts of all types, ranging from pie charts, histograms, bar charts, and multiple charts, curves of different types, could be downloaded from an online source and printed out or drawn locally on cardboard paper for use.

This study primarily focuses on exploring the educational benefits of instructional materials in the context of teaching economics; hence, an economics teacher should acquaint himself or herself with the knowledge that instructional materials can be used to augment the quality of teaching and learning outcomes. Incorporating various instructional aids alongside textbooks can cultivate a greater interest in learning among students. The information presented in figures 1 and 2 below were drawn from a table to underscore the relevance of instructional materials (*see appendices*). Suppose a teacher wishes to teach the percentage of what is learned using different senses and the percentage of what is remembered in a learning activity. With the information given in the table (*appendices 1 and 2*), to make the students appreciate the differences in these percentages, they were converted to charts (*now improvised instructional materials*), and these pictures, when printed out or drawn on cardboard, will make teaching more meaningful and stimulating to the learners than merely telling them what percentage this or that is. In essence, teaching aids have the capacity to simplify the teaching and learning process.

2.6 Relevance of instructional materials in the teaching and learning process: empirical evidence

There is substantial evidence that supports the significance of instructional materials in facilitating the teaching and learning of educational content. Adegorite, John and Olaitan (2008) investigated the relevance and utilisation of multimedia as instructional resources and its learning outcomes in Ojo LGA of Lagos State. The study utilised a questionnaire as a research instrument and adopted Chi-square statistics using the SPSS package for analysis. Findings from the study revealed that relevance and utilisation of multimedia influence students' attitudes in learning. It further added that multimedia devices have significant effects on the educational system and can be seen as a way of introducing important changes by impacting the way teachers communicate with learners. The study recommended that multimedia technology should be included in the school curriculum. Tuimur and Chemwei (2015) investigated the availability and utilisation of instructional resources essential for teaching conflict and conflict resolution in the Social Studies subject within Nandi North District in Kenya. The research adopted a descriptive survey approach and involved social studies teachers as participants. Purposive sampling was employed, and data was collected through questionnaires. Descriptive statistics were applied to analyse the gathered data. The study's findings highlighted that the teachers faced a shortage of necessary instructional materials for effectively teaching the topic. The study concluded that the current training of teachers in terms of teaching conflict and conflict resolution is insufficient, particularly in their capacity to create relevant teaching and learning resources and effectively employ them in the instructional process. Furthermore, the study noted that the available instructional materials in the sampled schools were insufficient to meet the teaching and learning needs in this subject area. Obasi (2020) conducted a study focused on the use of instructional resources for teaching and learning economics in Nigerian secondary schools. The research delved into the role of instructional materials in achieving desired educational objectives. The study recommended the need for well-equipped libraries with modern printed and non-printed materials (including audio-visual resources) to cater to the teaching and learning requirements of economics teachers and students in secondary schools. Similarly, Ikpesu and Appah (2021) examined

the availability and utilisation of instructional materials in the teaching of economics in senior secondary schools in Rivers State, Nigeria. Their research employed a descriptive research design to assess the significance of instructional materials in enhancing the comprehensibility and meaningfulness of economics education. The study revealed that instructional materials play a pivotal role in effective teaching and that the absence or underutilization of essential instructional materials hinders quality education. As a result, the researchers recommended the adequate provision and optimal use of instructional materials for the teaching of economics in senior secondary schools in Rivers State, with the aim of enhancing students' performance in economics.

Elsewhere in India, a study carried out by Sampath (1990) revealed that teaching and learning appealed to different senses in varying percentages. Figure 1 below presents the percentage of what is learned using different senses. The chart suggests that individuals tend to learn more through the sense of sight, which accounts for 83.0% of the learning process, followed by the sense of hearing at 11.5%. These two senses appear to be more dominant in the learning experience compared to other sensory modalities.

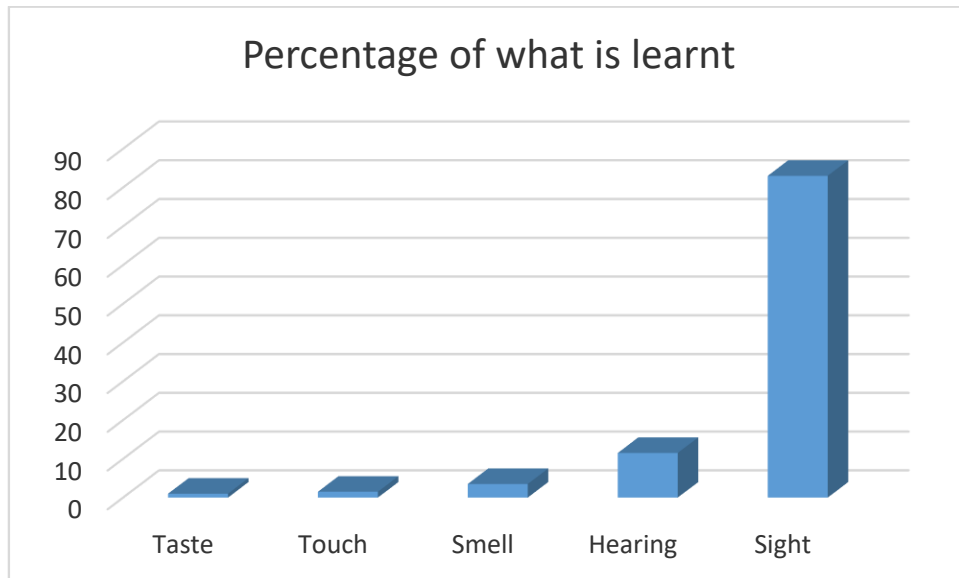


Figure 1: Percentage of what is learnt using different senses

The author went further to also investigate learning activity and the percentage of what is remembered. Accordingly, as revealed in figure 2 below, what we see (visual: 30%) is greater than what we hear (audio: 20%) about learning activities. Sampath (1990) additionally emphasised that in order for learners to internalise and retain more knowledge, it is essential to engage multiple senses beyond just hearing, as further revealed in what we see and hear (audiovisual: 50%), as well as what we say and do.

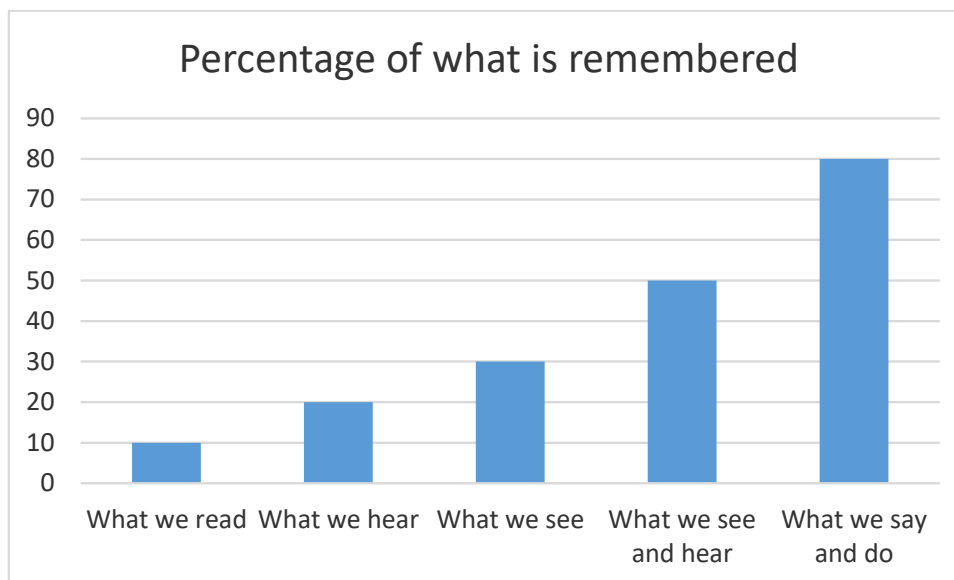


Figure 2: Percentage of what is remembered

In addition to the empirical evidence presented above, some of the educational values of employing instructional materials in the teaching and learning of economics in senior secondary schools include the following:

1. Ability to remember concepts faster

Learners who struggle with retaining concepts can benefit significantly from the integration of teaching aids. The incorporation of instructional materials in the teaching and learning of economics, for instance, lends a practical dimension to the lessons, facilitating a deeper understanding. Tools like models, charts, graphs, and other aids contribute to this comprehensibility. Additionally, it injects a sense of interest into the learning process, making it more engaging, and as a result, students are more likely to retain the concepts over a longer period of time. Within the cognitive domain of learners, which encompasses knowledge and the cultivation of intellectual skills, instructional materials play a pivotal role. They contribute to the recognition of facts, procedural patterns, and key concepts, which are instrumental in the development of students' abilities and skills. Ultimately, these materials enhance the memory retention of students.

2. Demonstration effect

In economics, there are some lessons that cannot be taught only verbally

without recourse to instructional materials. For instance, teach a *market or trade* to students. An economics teacher could make some food or other items available and provide some physical cash too. The students could be used as human resources to demonstrate buying and selling using currency (say, *naira*) as a medium of exchange for the food or any other item provided. By so doing, the students are able to demonstrate trading by themselves, and this will stick more to their brains (*as in figure 2 above*). You will observe that what people say and do during the teaching and learning process has the highest percentage (80%) in terms of learning activity.

3. Difficult topics become much easier to learn

To some students, some topics or concepts are just difficult to comprehend, and so what happens is that such topics are avoided or skipped. Teaching such subjects becomes more effective when suitable and relevant instructional materials are employed. Teaching aids help them to understand the so-called difficult or complex concepts better rather than wanting to skip them.

4. Enhances cognitive skills

Using relevant instructional materials can enhance the cognitive skills of learners. Pictures, models, charts, and graphs can stimulate their intellect rather than assuming abstract pictures in their minds. Just as the example illustrated earlier about teaching markets and trade shows shows, they are not only able to demonstrate trading activity, but they are also able to think through how trade is carried out and between the parties involved. Next time such topics are taught, their cognitive memory is able to quickly bring this knowledge to the fore. Utilising instructional materials in the teaching of economics holds great significance, as it establishes a solid foundation for conceptual thinking, inspires motivation for learning, and captivates the imagination of students.

5. Promotes an interesting teaching and learning atmosphere.

Teaching with instructional materials makes the lesson interesting. They are able to hear the teacher's explanation and see what is being explained, and the lesson looks more real than an explanation without a visual presentation. Their attention is stimulated, and the lesson will not look boring to them. The incorporation of instructional materials can capture individual attention by generating interest, ultimately aiding learners in achieving desired teaching and learning outcomes.

6. Helps the teacher cover a lot in a short time.

When teachers use instructional materials, it helps them a great deal. It makes the teaching seamless and saves time and effort that would have been spent explaining the concept(s) repeatedly. In other words, the inclusion of instructional materials in the teaching and learning process significantly simplifies the teacher's role.

7. Promotes the good performance of students

There is a wealth of empirical evidence demonstrating that students taught with instructional materials tend to outperform their counterparts who are taught without such materials. To aid students in achieving commendable academic results, economics teachers are encouraged to make effective use of instructional materials. The impact of instructional materials on enhancing students' academic performance and facilitating teaching and learning in the field of education is undeniable. The teaching of economics in Nigerian secondary schools requires careful attention, particularly concerning the materials employed by teachers to convey their subject matter. This aspect of the education system at the secondary level is unquestionably crucial for practical classroom integration and the successful transfer of knowledge from teachers to students.

3 Conclusion

The primary goal of any worthwhile instruction is to achieve the instructional objectives at the end of such a session. This is better achieved through the utilisation of relevant instructional materials. Instructional materials are teaching aids that make teaching interesting and more appealing to learners. Whereas instructional materials do not replace the teacher/instructor, they complement the efforts of the teacher in realising the set objectives. In advanced cultures, instructional materials are as important as the school itself; hence, these aids are supplied to facilitate effective teaching and to assist students in cultivating and enhancing their skills in all three learning domains: cognitive, affective, and psychomotor. However, in Nigeria, such is not the case, as the provision of instructional materials is grossly inadequate, coupled with shortages of teachers, especially in rural areas. It is common knowledge that for a teacher to teach educational content successfully, instructional materials are necessary gadgets that should be

utilized. In the absence of these aids, many teachers' resourcefulness comes to bear. Many would personally, or in arrangements with the school authorities and (sometimes) with the Parent-Teachers Association (PTA), improvise teaching aids. All these efforts are to ensure that the teaching and learning outcomes are achieved.

In this study, an attempt has been made to examine the pivotal role of instructional materials in achieving good performances, reducing the failure rate, and making learning an interesting experience for the students. However, the challenge of poor funding of education has led to a paucity of these instructional materials, as well as the inability of some schools and teachers to locally source or improvise instructional materials (due to cost). A lack of access to information and communication technologies has all hampered the efficient utilisation of relevant instructional materials.

4 Recommendations

The following recommendations are made to enhance the effectiveness of teaching and learning economics in secondary schools in Nigeria:

1. Governments at all levels should prioritise education and supply instructional materials to help the system, as this will lead to effective teaching and learning.
2. School authorities (public and private) should intensify efforts to provide relevant instructional materials from their internally generated revenues for utilisation by teachers.
3. Teachers should see the need to complement the school's efforts where necessary to improvise instructional materials to make their job much easier and teaching more interesting.
4. Corporate bodies and philanthropists should contribute by providing and donating instructional materials to schools, thereby improving the quality of teaching and learning.
5. The culture of maintenance of these instructional materials should be imbibed by schools, teachers, and instructors for longevity.
6. Students should recognise the value of using instructional materials and actively engage with them, ensuring effective teaching and favourable learning results.

References

- Abdu-Raheem, B. O. (2011). Availability, adequacy and utilization of social studies instructional materials in Ekiti State secondary schools. *Journal of Current Discourse and Research*, 3, 242-255
- Abimbade, k. (1997). *Principles and practice of educational technology*. Ibadan. International Publishers
- Adegorite, John and Olaitan (2008). The relevance and utilization of multimedia as instructional resources in teaching and learning of biological concepts in Lagos State secondary schools. *Journal of Teacher Education, Adeyemi College of Education, Ondo*. 18(1). 264 - 275
- Akpan & Okoli (2017). Effect of the use of instructional materials on academic performance of pupils in Ikwuano Abia State. *International Journal of Trend in Research and Development*, 4(1), 247 - 250.
- Aromolaran, A. (2006). Estimates of mincerian returns to schooling in Nigeria. *Oxford Development Studies* 34(2). 265 - 292
- Ayodele – Ogunleye, S. C. & Otutu, U. C. (2006). The impact of instructional materials on the teaching and learning of Igbo as a second language in tertiary institutions. *Ondo journal of Arts and Social Sciences (OJASS)*. Adeyemi College of Education, Ondo. 6(1).108 – 122
- Galbraith, J. K. (2021). What is Economics? A policy discipline for the real world. *Real World Economics Review*. 96, 67 - 81
- Ikpesu, O. C. & Appah, C. N. (2021). Instructional materials for teaching Economics: availability and utilization in senior secondary schools. *International Journal of Innovative Social and Science Education Research*. 9(4), 87 – 93
- Iyoha, M. A., Oyefusi, S. A. & Oriakhi, D. E. (2011). An introduction to modern Microeconomics. (Second Edition). Benin: Mindex Publishing
- John, B. (2002). Oxford dictionary of Economics. New York: Oxford University Press
- Kadzera, C.M. (2006). Use of instructional technologies in teacher training colleges in Malawi. *Doctoral Dissertation*, Virginia Polytechnic Institute and State University.
- Mills, H. R. (1997). *A handbook for instructors*. Third edition, Ibadan. Macmillan Publishers
- Obasi, H. O. (2020). Use of instructional resources for teaching and learning Economics education in secondary schools in Nigeria. *IAA Journal of Education*, 6(1), 32 - 37

- Ogbaji, D. I. (2017). Teachers' perception of the utilization of instructional materials in teaching social studies in junior secondary schools in Calabar municipality, Cross River State, Nigeria. *Global Journal of Educational Research*, 1(6), 95-100.
- Ogunbote, K. O. (2006). Quality assurance in Nigeria academic libraries network Multimedia services. *Journal of Library and Information Services* 3(180). 100 – 111
- Onyia, M. N. (2012). *Micro Teaching; a practical guide*. Enugu, Count Int'l Publishing Press.
- Okorie, J. (1979). *Fundamentals of teaching practice*. Enugu. Fourth Dimension Ltd
- Sampath, K. (1990). *Introduction to educational technology*. New Delhi. Sterling Publishing Private Ltd
- Tuimur, H. N. & Chemwei, B. (2015). Availability and use of instructional materials in the teaching of conflict and conflict resolution in primary schools in Nandi North District, Kenya. *International Journal of Education and Practice*. 3(6), 224 - 234
- Wambui, S. E. (2013). Effects of use of instructional materials on learner participation in science classroom in preschool in Kiine zone Kirinyaga county Kenya. Nairobi: University Press, Nairobi

Appendices

Appendix 1: Percentage of what is learnt

Senses used when learning	Percentage of what is learnt
Taste	1
Touch	1.5
Smell	3.5
Hearing	11.5
Sight	83
Total	100

Source: Sampath, (1990)

Appendix 2: What is remembered from learning activity using different senses

Learning activity	Percentage of what is remembered
What we read	10
What we hear	20
What we see	30
What we see and hear	50
What we say and do	80

Source: Sampath, (1990)