# The Significance of Instructional Materials in Enhancing Students' Academic Performance

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## ABSTRACT

*This study aimed to develop materials engineering students could use to teach themselves Reading and Writing skills. Instructional materials are designed to assist teachers and students in fulfilling their responsibilities. The primary objective of this study is to develop self-instructional materials for engineering students to improve their reading and writing skills. Self-study materials rely on various means and modes of communication to meet the needs of students. Instructional materials are different ways for teachers to give information to students more straightforwardly and memorably. Instructional materials are how a teacher can explain a concept to help students understand it better while teaching and learning.*

Keywords : Self-Instructional Material, Self-learning, Distance learning, Independent learning, Instructional Material

## Introduction

English is essential in preparing students for global challenges as a foreign language. Students who are fluent in English can communicate with people from all over the world, as English is an international language or Lingua Franca. According to Anburaj and Christopher (2015), English is required at professional colleges. It is considered a widely accepted language and essential for survival in today's competitive environment. In addition, they stated that English is a necessary and required language for most people. Therefore, the provision of instructional materials for every subject in the curriculum is essential. In response to interactions with words, symbols, and concepts, students' ability to read, listen, solve problems, view, think, speak, write, and use media and technology improves. Following Faize and Dahan (2011), instructional materials can be printed or nonprinted. They aim to provide information to students as part of their learning process. There are a variety of printed materials, including textbooks, periodicals, newspapers, magazines, slides, photographs, workbooks, and electronic media. In general, the text should serve as the primary instructional resource.

## How to put the use of Instructional Material into Practice?

Instructional materials consist of the course's content or information. These consist of the course's lectures, readings, textbooks, multimedia components, and other materials. Some of these materials must be modified or redesigned to be effective in an online classroom. The most effective instructional materials align with all other course components, including learning objectives, assessments, and activities.

The instructional materials provide the core information students will experience, learn, and apply during a course. They can motivate or demotivate students. It is particularly true for online courses, which rely on a comprehensive collection of instructional materials that students

will access, explore, absorb, and refer to as they progress through a course. Therefore, such materials must be meticulously planned, selected, organised, and refined before being incorporated into a course. To optimise student learning, the planning and selection of instructional materials should consider both the breadth and depth of content. Instructors and instructional designers should cast a wide net in their search for diverse course materials. In addition, they should be deliberate in their selections so that the course contains the appropriate mix of instructional materials. A few categories of instructional content to include in an online course are listed below.

## 1. In Instructional Materials – Lectures

Instructors should ensure that lectures in the online classroom are appropriate for a unique purpose and complement other instructional materials. Whether video or text-based, lectures should not be so lengthy as to monopolize the learner's time in the online classroom. Instructors are advised to break up lecture material into shorter segments so that it is more easily absorbed and followed.

**Tips on developing lectures:**

1. This text is about the content's appropriate scope and coverage. It excludes irrelevant or unnecessary information.

2. The content should be divided into smaller, logical segments so students can experience it more effectively.

3. Transcripts and captions for all video content should be provided to ensure that lectures are accessible.

4. Long video lectures should be avoided because most students will not finish them.

Five- to ten-minute mini-lectures are more attractive.

## 2. Digital Media

Digital media includes all types of content, including lectures that instructors might want to put in their courses. This instructional material engages multiple senses, including sight, sound, and touch. Instructors need to consider the technical feasibility of digital media when creating and teaching courses. Other factors to consider how accessible the content is and whether to find existing materials or create new content.

**Types of digital media**

1. Photos or screen captures of what we see on a computer screen.

2. An audio and video recording of a PowerPoint presentation or other mini-lecture narrated using computer software for recording video and audio.

3. Examples of concepts or metaphors through movie clips.

4. The audio recording of instructor explanations (i.e., podcasts)

## 3. Syllabi

A course syllabus is a helpful instructional resource that concisely conveys all the essential information students need to know about a course.

- Learning outcomes and objectives for the course.

- The number of credit hours associated with the course.

- Organization and content of the course.

- Communication expectations and contact information for instructors

## 4. Accessibility & Universal Design

According to university, state, and federal policies and laws, all instructional content must be available to all students. Most importantly, this includes all students with disabilities, physical, cognitive, or both. Accessible design, used to meet these requirements, has the added benefit of helping all students learn on a more even playing field.

Universal Design for Learning (UDL) is based on the idea that good design is inherently good for all learners, no matter how smart they are or where they come from. To do this, online teachers can take a few simple steps that significantly affect how accessible their courses are. Here are some tips for designing accessible online courses.

1. Utilize the accessible templates provided by campus learning management systems (LMS) such as Canvas.

2. Carefully adhere to all LMS instructions and include all requested information, such as image descriptions for visually impaired or blind students using screen readers.

3. Ensure that alternative means of accessing all multimedia content in a course, such as transcripts and captions, are provided.

### What Kind of Instructional Material Should be used?

Many different types of instructional material can be used in a course or program: textual (written), auditory (sound), visual (images), web-based (online), or video (online/offline). Some instructors prefer to use textual material (written texts), while others prefer auditory or visual materials. Some instructors prefer web-based or video-based instruction, while others choose only online/offline instruction. Some instructors prefer to use various instructional materials, while others choose only one type of material. When deciding which instructional material to use, it is essential to consider the instructor's preferences and goals. For example, instructors who prefer written texts may find audio and visual materials more effective.

Additionally, they can assist teachers in planning their lessons more effectively and presenting information in a way that students can easily understand. When choosing instructional materials, it is essential to consider the needs of students and how the content can be best utilized to support their learning. In many cases, using various instructional materials can be beneficial, providing students different ways of engaging with the material. For example, if a textbook is a primary resource for a particular unit of study, supplementing it with worksheets, online resources, or other materials can help ensure that all students can engage with the content and learn in the best way for them. While some argue that the quality of the materials is more important than the quantity, others contend that it is the other way around. Overall, instructional materials can be highly beneficial in improving students' academic performance. They can help students learn more effectively and better understand the concepts they are being taught. Additionally, they can assist teachers in planning their lessons more effectively and presenting information in a way that students can easily understand.

### How to Improve Instructional Material?

To keep students engaged and learning should use more engaging material. It can be anything from colourful graphics to powerful images that grab attention. Additionally, students have to use clear and concise language that students can understand. I also want to ensure that materials are easily read

and twisted into new stories for students.

## Use Clear and Concise Material

Clear and concise language is essential when writing instructional materials. It will help students understand what they are reading and how it applies to their lives. Additionally, using high-quality photos is a great way to help viewers connect with the text. In addition, give positive reinforcement when students perform well on tests or exams – this will encourage them to continue learning and trying new techniques!

## Use Positive Reinforcement

Finally, do not forget about positive reinforcement! Give Students tangible rewards for completing complex tasks or studying hard – anything that will encourage them to stay subscribed to class or continue learning after arriving on time! Doing this will ensure that everyone in the class feels like they are part of the learning process and are motivated towards success overall!

## Students' Performance of Instructional materials

Adeogun (2001) found that instructional resources and academic performance correlate positively. In Adeogun's view, schools with more educational resources perform better than those with fewer resources. According to Babayomi (1999), private schools fared better than public schools since they had greater access to high-quality teaching and learning resources. Adeogun observed in 2001 that public schools lacked a significant number of teaching resources, claiming that public schools lacked both teaching and learning resources.

Fuller and Clark said in 1994 that the quality of a learner's education depends on how well they are taught. From their point of view, they think that a good learning experience for the learner comes from suitable learning materials. Mwiria (1995) also says that how well students do in school depends on how many and how good the teaching and learning resources are. Schools with good teaching and learning tools, like textbooks, charts, pictures, and natural objects for students to see, hear, and try, are likelier to do well on tests than schools with inadequate tools. Chonjo (1994), on the other hand, only cared about the buildings and ignored the teaching materials. I do not think facilities, including classrooms, chairs, and desks, are enough for good teaching and learning. There must also be educational materials. Maundu's (1987) study backs up what I think about how important it is for a school to have good textbooks and other tools for teaching and learning if it wants to do well.

## Access To Instructional Materials is a Challenging Task For Teachers

It is challenging to obtain instructional materials for teachers in community secondary schools, especially rural ones. Teachers in community secondary schools face several significant challenges, including the lack of government funds to purchase instructional materials. A large part of the funding for community secondary schools comes from the government. Due to poverty, local governments and communities around schools provide very little support, especially in rural areas. Schools receive capitation grants from their local governments. The capitation grant intends to increase education quality by ensuring adequate teaching and learning materials are found in the schools. The capitation grant provides funding for textbooks and other teaching and learning materials. (Uwazi, 2010)

Even though enrollment goes up every year,

education capitation grants have decreased. If you do not consider inflation, schools' current capitation grants are less than they gained between 2002 and 2003. Based on the 2004 Education Public Expenditure Tracking Survey, schools earned an average of 5,400 shillings between 2002 and 2003. However, school funding went down to 4,189 shillings per student in 2007/08. (URT, 2010). The money given is not enough to buy even a small number of large numbers of textbooks and other teaching materials that teachers need. The government's policy has always discouraged the efficient delivery of these educational resources. It has never been well planned, monitored, supervised, or evaluated, mainly when these policies target rural schools.

The importance of information and communication technology for disseminating knowledge is universally recognized. (Aina, 2013) Teachers before the early 1990s lacked skills in information and communication technology. In addition, where there are highly qualified educators, other issues such as installation, maintenance, operation, and network administration arise naturally. Local technicians must maintain this equipment as well as other facilities. The traditional chalk-and-duster teaching method in rural secondary schools dominates the pedagogy. (Obasi, 2008)

Teachers also have to deal with another problem: low pay. Most government workers, including teachers, are paid very little. It makes it hard for them to buy their teaching materials or learn new ideas, skills, and knowledge. They can not sign up for information and Communication Technology (ICT) programs. It will likely affect teachers' and students' academic and intellectual skills in the classroom (Onche, 2014). Teachers might be unable to make their teaching materials

if they do not have enough skills or creativity. It is up to the local governments and communities around community secondary schools to give them resources, especially money. It allows teachers to use these resources to get to teaching materials. It is not the case for several reasons most of the time, however. Some places do not have much to tax. Also, when it comes to getting their money, local councils have been said to be very bad at what they do. Galabawa (1993) states that only a small number of types of committees in Tanzania can get money from the government.

Still, many local governments have been unable to keep up with the fast rise in spending and budget shortfalls. Education is one of the areas that will be affected the most by this. Poverty is another reason people in a community might be unable to help teachers and schools pay for learning materials. Kimego (2011) notes that parents' and school districts' involvement varies from rural to urban areas and from one economy to another. It is common for parents who work in a cash crop economy to have more money for their children's education than their counterparts who do not. In addition, some religious groups, such as the Masai, lack adequate resources to support their children, and there is a shortage of teaching materials for teachers employed in these areas.

There is no clear policy to ensure community secondary schools have enough money to buy teaching materials. As a result, it makes it hard for teachers to get their hands-on teaching materials. Onche (2014) says that the government's policy on how to provide these educational resource components effectively has not been encouraging. It has never been well planned, monitored, supervised, or evaluated, and the effects of these policies on rural schools have been left out of the picture.

## Methods of Minimising The Challenges of Obtaining and Utilising High-Quality Instructional Material

Getting and using suitable teaching materials can be more challenging, but there are ways to make it easier. According to research conducted in various parts of the world, making teaching materials is one way to help, including in Africa. Eshiet (1996) defines improvisation as locating, selecting, and applying appropriate teaching and learning materials when standard materials are unavailable or insufficient to meet specific educational goals and objectives. In their research, Abdelraheem and Al-Rabane (2005), Udosen (2011), and Ibe-Bassey (2012) propose that low-tech materials and improvised media can expand any course of study's limited knowledge base, make it more interesting, and improve the quality of life. However, finding and using appropriate teaching materials can sometimes be a challenge. Still, finding and using appropriate teaching materials can be difficult, but there are ways to make it easier. According to research conducted in various parts of the world, making teaching materials is one way to help, including in Africa. Eshiet (1996) defines improvisation as the discovery, selection, and application of appropriate teaching and learning materials when standard materials are unavailable or insufficient to meet specific educational goals.

The studies by Abodelraheem and Al-Rabane (2005), Udosen (2011), and Ibe-Bassey (2012) indicate that low-tech media and resource-based learning can extend any course's limited knowledge base and make it more engaging. There are, however, ways to make it less complicated. According to research conducted in various parts of the world, making teaching materials is one way to help, including in Africa. Eshiet (1996) described improvisation as discovering, selecting, and applying appropriate teaching and learning materials when standard materials are unavailable or insufficient to meet specific educational objectives. Studies conducted by Abodelraheem and Al-Rabane (2005), Udosen (2011), and Ibe-Bassey (2012) indicate that low-tech materials and resource-based learning can enhance the lack of knowledge in any course. It can also help spread the word about using technology to teach elementary science. According to Dodge (1997), using simulation tools provides people, the environment, resources, and services with new ways to learn about and use them.

ICT can also help eliminate things that make it hard to access educational materials. UNESCO (2004) says that the speed with which electronic communications spread can hurt the quality and effectiveness of primary education worldwide. Because it is easy for teachers and students to find information on almost any topic on the Internet, instructional content and reasonable pedagogical practices are changing. Students in other countries can also take courses that the best teachers in one country take. We might improve communication and access to resources by using newer ways to teach with technology, like the Internet and the World Wide Web (WWW). Tinio (2002) states that information and communication technologies (ICTs) have the potential to significantly improve the quality and accessibility of education in developing countries. According to Tinio, ICT can enhance developing countries' educational systems by facilitating knowledge acquisition and absorption.

## Conceptual Framework

Bloom's (1982) evaluation model was used to make the conceptual framework because it can show how instructional materials can be used and applied in teaching and learning. The study looked at how teaching materials, education, and learning happen

and how well students affect each other. The Predictor Variable, the Mediating Variable, and the Performance Variable are all parts of the model.

### *Figure 1.0 Model of Instructional Materials' Role in Student Performance*

Bloom (1982) suggests that predictor and mediating variables significantly influence student performance. Figure 1.0 shows that if the predictor and mediating variables are both high quality, the teaching and learning process will produce more exceptional academic outcomes. Figure 1.0 presents a model for explaining students' English language learning performance. Models are used to investigate the relationship between variables to enhance teaching and learning, including the availability and use of adequate and high-quality instructional materials. We expect they would contribute to high-quality education and student performance. In addition, it was hoped that exposing students to high-quality instructional materials would motivate them to learn since motivation determines academic performance.

### The Usefulness of Instructional Material in Language Teaching

Choosing suitable instructional material is essential to make learning as comfortable and effective as possible for all students. Additionally, the material used in a classroom should match the difficulty level the student expects. For instance, someone with basic knowledge would not need complicated instructions to understand a video tutorial; instead, they would only need to skim through which instructional material is appropriate for a classroom. Therefore, the material used in a classroom should match the difficulty level the student expects. There are a variety of materials available to choose from, depending on needs and preferences. To find suitable instructional material

for class, first, we need to determine the type of online course.

### 1. Instructional Charts

A two-dimensional chart provides a balanced visual representation of diagrams, pictures, and numerical or verbal information. It can summarise vital processes, concepts, or relationships. (Ibe-Bassey, 2000)

### 2. Posters

Posters can be an excellent tool for students to help them stay organized and focused on their studies. Posters can help students stay on track with their studies by providing reminders of upcoming deadlines and assignments. Posters can also help to motivate students to work hard and stay motivated. Posters can also be a visual aid to help students understand complex topics or concepts. Finally, posters can be used to create a positive atmosphere in the classroom and help create an environment for learning.

### 3. Film Strips

Film strips can be an excellent tool for students to use when learning. They can help to provide visual stimulus, which can help to better engage students in the lesson. Film strips can also help to break up long lectures, making them easier to digest and giving students a better understanding of the material. Film strips can also be used to review material, allowing students to review any material they may have missed or not understood. Additionally, film strips can show various topics, allowing students to understand the material better.

### Process of Designing Self-Instructional Material

The first step in any design process is to identify the target audience. What does this mean for

self-instruction materials? Is it something that we want to reach out to educators, parents or students? Once we have a clear idea of whom we want to market our material to, we need to develop a plan for how best to reach them. It might involve creating a design brief, conducting research or simply picking a few key ingredients and spawning a project.

## 1. Need Assessment

Assessing the educational needs of the target group is the initial and most crucial step in designing a course. Research tools and techniques such as surveys can be used for this purpose, and other agencies in the same field can assist. The identified needs and any unfelt needs perceived by teachers or others will help guide the unit's content, objectives, and illustrations. Need assessment can also reveal the characteristics of the target group, such as their learning style, language proficiency, educational level, and socio-economic background. Furthermore, need analysis can help identify the suitable course writer, editor, etc., for creating and refining the course(s).

## 2. Resources and Constraints Analysis

We must consider the resources accessible to the institution, both from within and outside. These resources should be enough to manage the processes involved in designing, developing, and carrying out a course/program. At the stage of designing, a decision has to be taken as to which medium is to be used for the course. If it is possible to access more than one medium, we should consider how to integrate them properly. The practical aspect of the course should be thoroughly considered. For example, we must make all the necessary arrangements if the course requires residential contact sessions. Additionally, we need to examine the provisions that must be made to provide students with access to laboratories, workshops, etc., to meet the course's objectives.

## 3. Choosing suitable Methods, Media and Activities

There are numerous ways to present learning points and accomplish goals. We must select the most appropriate methods given the set objectives, available resources, and accessible media. In addition, selecting appropriate media and methods depends on various other factors, such as the learner's preferences, the cost, the timing, the educational effectiveness, and the institution's policy.

## 4. Identifying and Organizing the content

It is crucial to determine the content required to achieve the specified goals. Following the identification of the contents, they must be organised in light of the objectives. Finally, it will provide an overview of the course's content or a concept map of the overall material.

## 5. Evaluation

Evaluation of all course design components is essential in course planning and design. It will help the designer understand, among other things, how students will perform on the SIMs. In addition, any Evaluation at each age and the conclusion of the final stage will provide the opportunity to review the plan or design and the self-instructional materials.

## Conclusion

Finally, to utilize instructional materials and aid more effectively, the following guidelines may be helpful:-

- Instructional materials should make learning more authentic and meaningful to the learner.

- Materials should not replace learning;

materials should contribute to learning.

- The amount of time spent on instruction materials should be commensurate with the length of the learning period. Suitable instructional materials should be usable and not too complex so learning how to use them (instructional materials) takes too much time.

- Instructional materials should make learning more practical and meaningful to the learner.

In addition, it is essential to consider individual differences among learners when using various instructional materials to explain one particular concept.

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