05

INSTRUCTIONAL MATERIALS

CONTENT

1   CONCEPT OF INSTRUCTIONAL MATERIALS

Instructional materials, also known as Teaching and Learning Materials (TLM), are a vital component of the teaching and learning process. When used well, they can support learning and aid a learner in concretizing a learning experience and make learning more exciting, interesting and interactive. This subtopic will introduce you the concept of instructional materials and its importance in teaching and learning.

1.1   Introduction to teaching and learning materials

Instructional Materials or Teaching and Learning Materials are resources that a teacher may use in teaching and learning situations to help achieve desired learning objectives and to facilitate the teaching and learning process. Broadly, the term refers to a spectrum of educational materials that teachers use in the classroom to achieve specific learning objectives. These include the lectures, readings, textbooks, multimedia components, and other resources.

The best instructional materials are aligned with all other elements in the course, including the learning objectives, assessments, and activities. Ideally, the teaching and learning materials will be tailored to the content in which they are being used, to the learners in whose class they are being used, and the teacher.

Instructional materials can be classified by type; including audio, visual and audio-visual resources.

Audio media

These are teaching and learning materials that appeal to the auditory sense. For example: podcasts, telephones, radios, records and record players, storytelling, etc.

Visual media

These are materials that appeal to the sense of sight (eyes). For example: images, real objects, charts, flip charts, chalk boards and whiteboard, projected aids, etc.

Audio-visual media

These are teaching and learning materials that have the capacity to appeal to both auditory and sight senses. For example: television, educational videos, etc.

1.2 Purpose of teaching and learning materials

Teaching materials come in many shapes and sizes, but they all have in common the ability to support learning. The purpose and importance of teaching and learning materials is to make lessons interesting, learning easy and enable teachers to easily express concepts.

Learning support

Learning materials can significantly increase learners' achievement by supporting learning. For example, an educational video may provide a learner with new insights and an appealing worksheet may provide the learner with new opportunities to practice a new skill gained in class. This process aids in the learning process by allowing the learner to explore the knowledge independently as well as providing repetition. Learning materials, regardless of what kind, all have some function in student learning.

Lesson structure

Teaching and learning materials can also add important structure to lesson planning and the delivery of instruction. Learning materials act as a guide for both the teacher and the learner. They can provide a valuable routine in the teaching and learning process. For example, by providing a summarizing poster or video after each topic.

Differentiation of instruction

In addition to supporting learning more generally, teaching and learning materials can assist teachers in the differentiation of instruction. Differentiation of instruction is the tailoring of lessons and instruction to the different learning styles and capacities within your classroom. Learning materials such as worksheets, videos, group activity instructions, or any other, all allow teachers to modify them to best activate each individual learner's needs or learning style, for example by using different media.
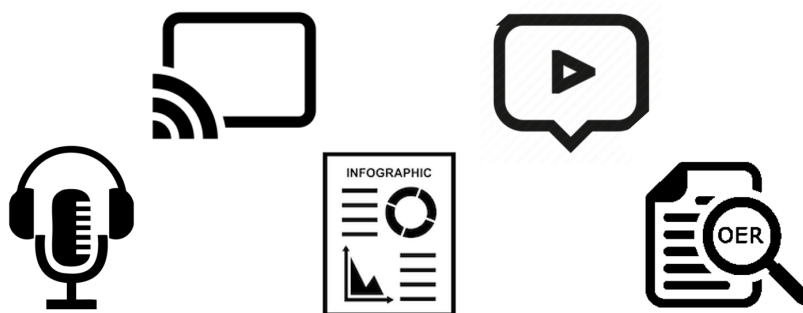
2   TYPES OF INSTRUCTIONAL MATERIALS

There are many types or categories of resources that teachers can use to support the teaching and learning process. Some resources or more traditional, others are more innovative. This subtopic reviews and introduces different types of teaching and learning materials which any teacher can start using tomorrow. Because a successful integration is more than just getting the tools into your classroom, every tool is accompanied with suggestions on how to engage your learners and enrich your lessons.

2.1   Traditional and innovative resources

There is endless list of Teaching and Learning Materials. The once we are most familiar with are traditional resources. These may include any textbooks and workbooks used in the classroom. For example, language arts classrooms almost always have literature textbooks, writing textbooks, and even vocabulary and spelling workbooks. More innovative materials may include charts, maps, videos, images, diagrams and flashcards. These instructional materials where, among others, widely discussed in the subtopic on Tools for Active Teaching and Learning.

In addition to these resources and to help you find your way in the endless possibilities of instructional materials, this course provides you with five great and innovative teaching and learning tools which you can start using tomorrow.

2.2   Podcasts

A podcast is a set of audio recordings. Podcasting allows content to be broadcast and distributed via audio files over the internet. The recordings work a lot like TV or radio series, except that people listen to them on demand and they are not a real time broadcast. Users can stream podcasts online or can download them to a personal device for easy listening offline.

Good practice

Go to https://bit.ly/2VFC34h and listen to a good practice of a podcasts.

Tips to integrate podcasting in teaching and learning

- Create podcasts for learners and step them through assignments and projects or explain challenging concepts.
- Let learners collaborate on a class wide podcast that offers a living record of class activities, with every learner contributing reports over the year.
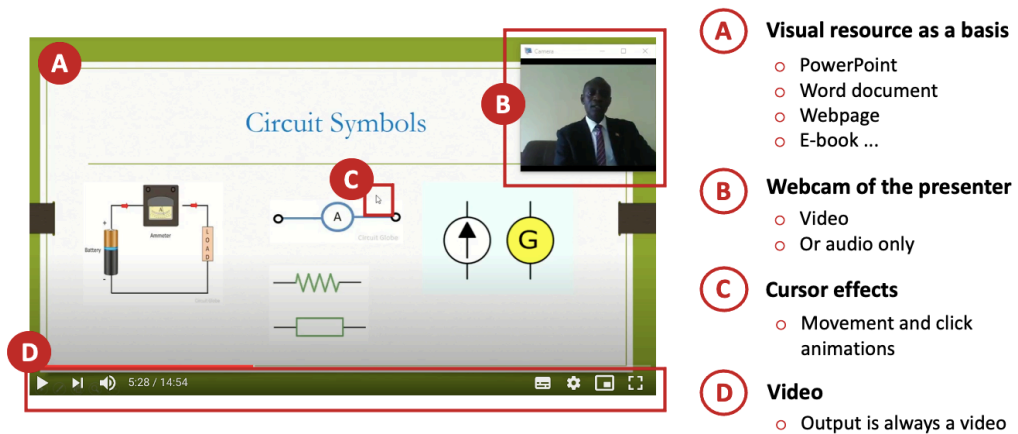- Have learners create podcasts to debate topics, interview guest speakers or record collaborative conversations.

Get into action

Go to www.anchor.fm and start creating your own podcasts using the tool **'Anchor'**

2.3   Screencast

A screencast is a digital video recording of what's happening on the teacher's computer monitor, usually containing audio narration. Common examples of screencasts are: tutorials, training videos, video lessons and recorded presentations. Screen casting is one of the most useful tools to use for digital storytelling.

Features of a screencast

A Visual resource as a basis
- PowerPoint
- Word document
- Webpage
- E-book ...

B Webcam of the presenter
- Video
- Or audio only

C Cursor effects
- Movement and click animations

D Video
- Output is always a video

Tips to use screen casting in teaching and learning

- Deliver attractive audio-visual learning resources to learners
- Provide audio-visual feedback to learners

Get into action

Go to https://atomisystems.com/download/ and start creating your own screencasts using the tool 'Active Presenter'.

2.4 Educational videos

An Educational Video is a video which presents educational material for a topic which is to be learned. The format may vary, but it always consists of moving visual media.
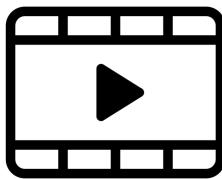
Good practice

Watch the below good practice of an educational video:

Link to the video: https://bit.ly/36Hbsdm

Tips to use educational videos in teaching and learning

- Create educational animated videos to provide visual learning resources to learners
- Let learners create their own videos summarizing a topic, project, book report

Get into action

Go to www.powtoon.com and start creating your own educational videos using the tool 'Powtoon'.

2.5 Educational posters

An educational poster is a tool that enable visualization in the classroom to foster student learning. A great example is an educational poster in the format of an infographic. An infographic is a collection of imagery, charts, and minimal text that gives an easy-to-understand overview of a topic. As in the example below, infographics use striking, engaging visuals to communicate information quickly and clearly.

View the below good practice of an infographic

The Importance of Reading

Stirs the Imagination
Infographics are visual representations of data, making complex info easier to share and digest. When making your own, simply organize your images, charts, and text. Finally, cite your sources.

Sparks Curiosity
Infographics are visual representations of data, making complex info easier to share and digest. When making your own, simply organize your images, charts, and text. Finally, cite your sources.

Teaches Communication
Infographics are visual representations of data, making complex info easier to share and digest. When making your own, simply organize your images, charts, and text. Finally, cite your sources.

Gives Quiet Time
Infographics are visual representations of data, making complex info easier to share and digest. When making your own, simply organize your images, charts, and text. Finally, cite your sources.

Tips to use educational posters in teaching and learning

- Create appealing learning resources and assignments
- Create infographics to explain and illustrate difficult concepts
- Create classroom poster on essential learning content to decorate the classroom
- Create newsletters to share class information with learners, the school and parents

Get into action

Go to www.canva.com and start creating your own educational posters using the tool 'Canva'. Other similar great tools to create your own educational posters are 'Piktochart' www.piktochart.com and 'Infogram' www.infogram

2.6   Open Educational Resources (OERs)

Open Educational Resources (OERs) are a fantastic type of instructional material because they are free to reuse, adapt, and share. Moreover, they have been created and curated by educational professionals. OERs might take the form of lesson plans, quizzes, online articles, digital media, databases, simulations, and much more. OERs can be found in large collections or through search engines and may range from individual images to entire courses.

Key points of OERs

- Adaptation and redistribution of learning resources is allowed
- Learning materials are open to all
- Learning materials are released in an open license
- Learning materials available in any format (video, text, etc.)

Tips for integrating OERs in teaching and learning

- Find an OER that will help support course or unit-level objectives
- Assess the quality of the OER
- Eliminate extraneous content within the OER
- Remix the OER with other educational materials, if applicable
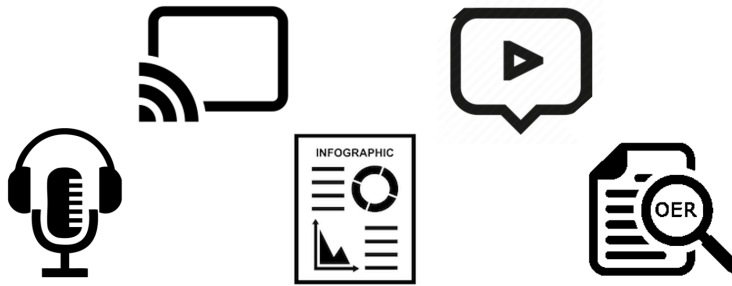
Overview of the best OER platforms

- TTE Sandbox: One Stop Portal for Distance Learning:
  https://padlet.com/teachertraininguganda/Sandbox

- Khan Academy
  https://www.khanacademy.org/

- TED
  https://www.ted.com/

- OpenLearn Create
  https://www.open.edu/openlearncreate/

- OER Commons
  https://www.oercommons.org/

- TeacherTube
  https://www.teachertube.com/

3   CHOOSING INSTRUCTIONAL MATERIALS

As reflected in the previous subtopic, there are many types of resources that teachers can use to support the teaching and learning process. Teaching and learning materials can come in many different shapes, sizes and formats. No one tool is better than another in enhancing learning, as there are different factors to consider when selecting appropriate teaching and learning materials. This subtopic introduces you to the main factors to consider when selecting instructional materials.

3.1   Integrating instructional materials

As teachers, it is essential that we become familiar with the type of instructional materials, which can be used in any teaching/ learning situation; from podcasting to screencasting and from infographics to engaging videos, among others.

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Reflection point

- Which of the newly introduced tools/formats to create instructional materials inspired you the most? Why?

- How would you integrate it in one of your lessons?
  Tip: *think about a specific topic and learning objective.*

3.2 Factors to consider when selecting instructional materials

Instructional materials provide the basis for what learners will experience and learn. They hold the power to either engage or demotivate learners. Therefore, instructional materials must be carefully planned, selected, organized, refined, and used.

Key factors to consider when selecting instructional materials:

Take into consideration individual needs and learning styles:
Choose materials that present information in a variety of ways. Using mixed media (text, video, images, real world examples, graphs, etc.) make information more interesting and address learners' different learning styles.

Make sure the materials support learning objectives:
Provide a wide range of materials that will enrich and support the curriculum and course objectives. The instructional materials should reinforce and supplement, not substitute for, the teacher's teaching efforts.

Make the materials clear and accessible:
Make sure learners have sufficient background knowledge to comprehend the learning materials.