Kotebe Metropolitan University

Capacity Building Training for Education Experts working on Quality Professional Competence and Assessment Assurance Authority, Addis Ababa City Administration

On

Social Science Materials and Uses

Addis Ababa

November, 2020

Objectives of the Capacity Building Training

- **At the end of the training session trainees will be able to:**
  - Define Instructional Medias.
  - Identify the Instructional Medias used in Social Science classes.
  - Describe the uses of Instructional Medias.
  - Mention the criteria used to select Instructional Medias.

Introductory Questions

- What is media/instructional media?
- What are the commonly used Instructional Medias in Social Science classes?
- What do you think about the importance of different types of media in teaching and learning?
- What are the major criteria emloyed to select Instructional Medias?

INSTRUCTIONAL MEDIA

- The term '**media**' defined as the plural of '**medium',** is the way of communicating information or ideas.
- According to Heinich and others (1996), instruction is the *arrangement of information and environment to facilitate learning*.
- By environment they mean not only classroom or laboratory but also the methods, media and equipment needed to convey information and guide the learner's study.

INSTRUCTIONAL MEDIA

- Instructional media is a name given to all ***media materials, methods and techniques*** used to facilitate the teaching and learning process.
- They are **indispensable factors** in a teaching – learning process.
- This is because **ordinary words or verbalization** has been found to be **inadequate** for effective teaching.

WHY USING INSTRUCTIONAL MEDIA

- Instructional materials serve as **channels t**hrough which message, information, ideas and knowledge are disseminated.
- Lockheed (1991) says that instructional materials are **critical ingredients** in learning and that the curriculum could not be easily implemented without them.
- It is held that good teaching resources **can never replace** the teacher but the teacher uses them to achieve their teaching and learning objectives; **they are supplementary training devices**

WHY USING INSTRUCTIONAL MEDIA?

- Kochhar (1991) adds that a teacher who has adequate and relevant teaching facilities is more **confident, effective and productive**
- These instructional materials **bring life** to learning by stimulating students to learn- ***Facilitate active learning***
- Their use in the classroom has the potential to help the teacher explain **new concepts** clearly, resulting in better student understanding of the concepts being taught.
- Can replace **inaccessible real objects**.

WHY USING INSTRUCTIONAL MEDIA?

- Instructional materials **facilitate** the transmission, understanding and appreciation of concepts, skills, values and attitudes.
- Learning would be **interesting and meaningful**- Motivation
- Knowledge acquired would be **retained** for a longer time.
- **Different skills** would be acquired by learners.
- Students would be **actively involved** during lessons.
- **Clarifying concepts/data**: as visual aids give concrete meaning to words

WHY USING INSTRUCTIONAL MEDIA?

- Highlights **most significant point**
- Focusing **audience attention-** visualization
- Teach and entertain- Edutainment
- Integrate the experience from the **concrete things to the abstract** ones.
- Overcome the limitations of space and time- **Save time and space**
- **Stimulating thoughts :** In learning and teaching, the various senses can be stimulated through the use of **audio-visual materials.**

WHY USING INSTRUCTIONAL MEDIA?

- Every person learns by receiving information through the sense organs but when more senses are involved in the process of interaction with the instructional materials there will be **effective learning**.

What I am told, I forget;

What I see, I remember;

What I do, builds a castle in my head.

Igbo Proverb

If I hear it, I forget it

If I see it, I remember it

If I hear, see and do it, I know and understand it.

Chinese saying

WHY USING INSTRUCTIONAL MEDIA?

- There is a **relationship** between the quantity of information we remember and the sense organs being used.
- You also know that students learn skills, concepts and ideas better when they **try them out in practice**
- The old adage that '**practice makes perfect**' has a sound scientific basis

Edgar Dale (1969)produced the classification he named "**Cone of Experience**"

- **The cone experience** tries to show the ***relation ship between experiences, medium, our senses, and its implication to learning***.

Listening= Verbal Symbols + hearing

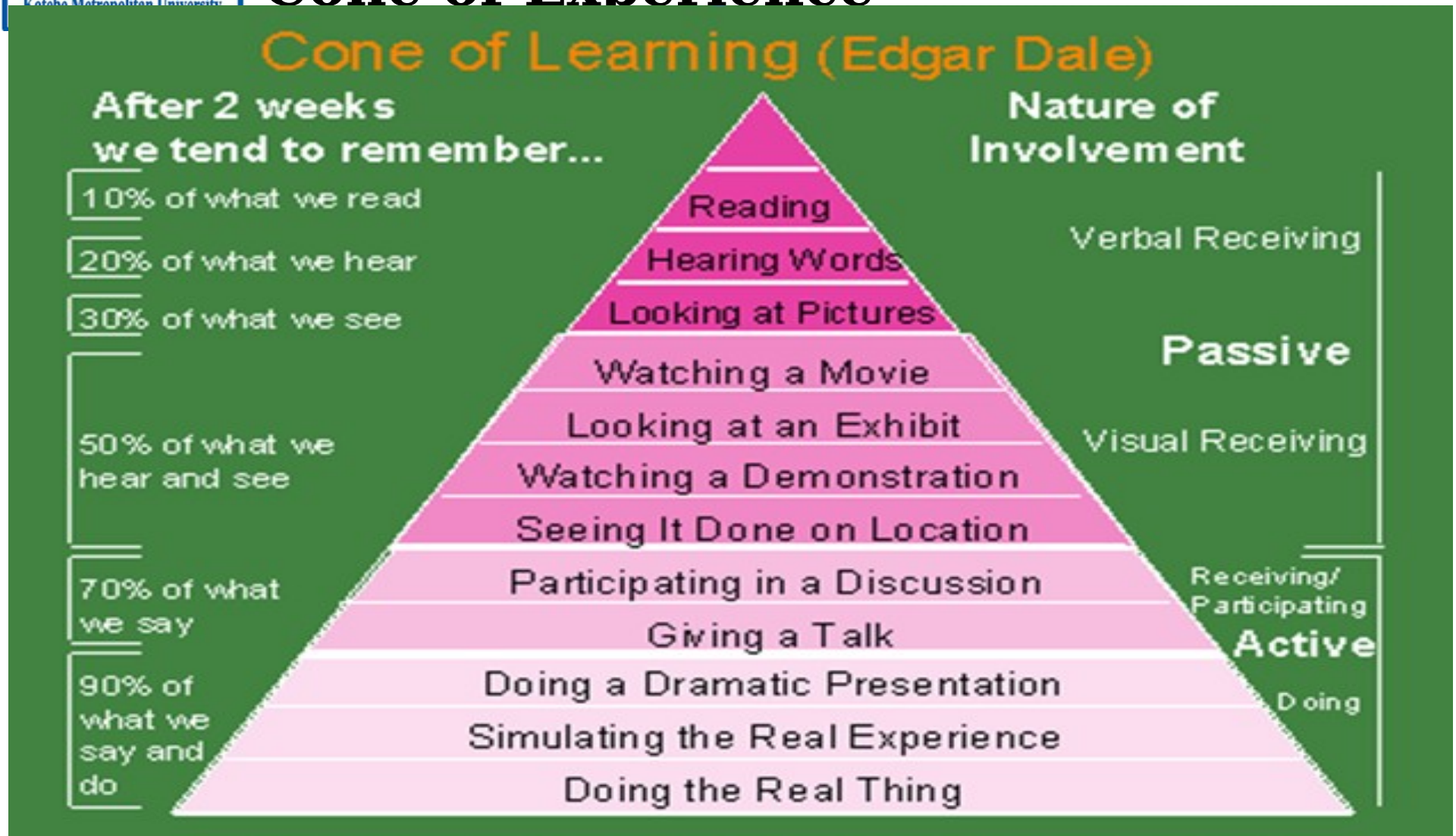
Reading= Visual Symbols + Association

Watching= Pictures, images + seeing + hearing

Doing= Realia + All senses

- The implication here is that for **more knowledge to be internalized**, more of the **learner's senses have to be stimulated** other than hearing alone.

Cone of Experience



WHY USING INSTRUCTIONAL MEDIA?

- 43 % more likely to be persuaded (UNIV OF MINNESOTA)
- Learning is improved up to 200 % (UNIV OF WISCONSIN)
- Retention is improved up to 38 % (HARVARD & COLUMBIA)
- Time to explain complex subject is reduced by 25 – 40 % (WHARTON SCHOOL OF BUSINESS)



- More interesting
- More persuasive
- Better prepared
- More professional
- More credible

WHY USING INSTRUCTIONAL MEDIA?

- But, when used poorly, the tools can obscure instructional objectives and make students confused, anxious and frustrated

KINDS OF INSTRUCTIONAL MEDIA

- They include both **visual and audio-visual aids** and could either be **concrete or non-concrete, 2D/3D**
- DISPLAY FORMATS :
  - Chalk Boards, Whiteboards, Flipcharts
- AUDIO MEDIA
  - Cassettes, CDS
- NON-PROJECTED VISUALS
  - Realia, Still Pictures, Graphic Materials, Real Objects
- PROJECTED VISUALS
  - Overhead Projection, Filmstrips, Slides

KINDS INSTRUCTIONAL MEDIA

- VIDEO AND FILMS
  - VIDEO, FILM, VCD, DVD
- ELECTRONIC DISTRIBUTION SYSTEMS
  - Radio, Television
- COMPUTER-BASED MEDIA :
  - PRESENTATION TOOLS : POWER POINT
  - INTERNET-BASED : FRONTPAGE, DREAMWEAVER
  - CAD, CD-ROM
- MULTIMEDIA KITS
  - SOUND-SLIDES, CD ROM

Social Science Instructional Materials

- In social studies, the use of instructional media is essential to support learning because social studies are concerned about **natural and social phenomena which cannot be easily expressed** without the support of medias.
- Rececе & Walker (2001) pointed out that it is important to use learning aids to **enhance student learning experience** and they **stress the link between poor learning with the failure to use** visual aids and similarly effective learning to the professional use of visual aids.

Social Science Instructional Materials

- Molstad (1974) also found that the proper use of instructional media positively affects **students' achievements**.
- In terms of effectiveness, recent reviews of research indicate that instructional technology has **positive effects** on the learning of social studies (Diem, 2000).
- Instructional materials can provide varieties of learning opportunities by helping students **move about, talk, laugh, question, comment up on, and in other ways act in a natural manner** as they do outside the classroom.

Social Science Instructional Materials

- Some of the instructional materials necessary for social studies include the *pupils book, chalkboard, models, chart (flip charts, strip charts, time and sequence charts etc…), graphs (pictorial graphs, line graphs, simple bar and pie graphs, maps, atlases, cartoons, comics, posters billboards) globe, newspapers, magazines, photographs, diagrams, noticeboard, slides, transparencies, filmstrips, audiotapes, resource persons, real objects, filed trips/local environment, notes, flash cards, postcards, school radio, computers, internet, Games, television/plasma*

Social Science Instructional Materials

- **Real Objects are concrete materials used in providing direct experience.**
- Real objects are real things removed from their **natural setting- rocks**
- It is possible to access real objects by going to their natural settings. This can be done by field trip.
- **Models** are modified real things – which may be larger or smaller than the real thing.

Social Science Instructional Materials

- ***Solid Models-*** used mainly for recognizing **external features** as in the case of globes and puppets





Social Science Instructional Materials

Resource Person as an Instructional Medium





Social Science Instructional Materials

PRINTED MATERIALS

- Written in text, prepared and published commercially
- Type of educational material used by most teachers



Social Science Instructional Materials

Examples of Printed Materials are:

- Textbooks
- Workbooks
- Magazines
- Newspapers
- Reference books
- Other types of books

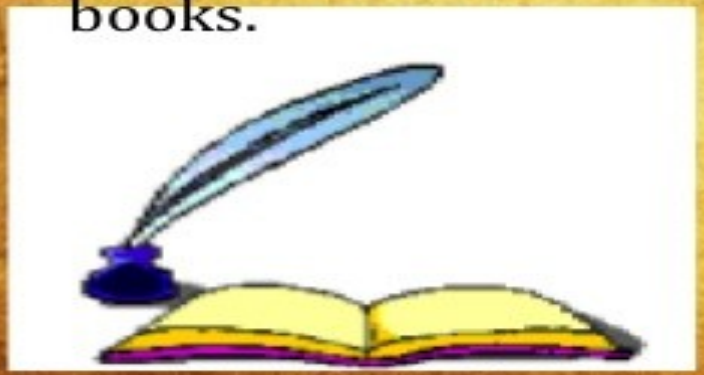




Social Science Instructional Materials

Supplemental Materials

- Sometimes called Instructional Aids or Pedagogical Aids
- Materials designed for teacher use that are provided as supplements to the text books.



Examples are:

- Teacher's Manuals
- Test Questions
- Skills books or Exercise books
- Transparencies
- Bulletin Boards
- Teacher resource binders
- Lesson Plans

Social Science Instructional Materials

- **Pictures and Charts:** are very useful instructional resources.
- **Pictures** are the most commonly used in instruction can be ***photographs, drawings, and illustrations.***
- They are the ***oldest, least expensive and most universally available***.
- **Charts** are combination of ***graphic and pictorial materials***.
- **Charts** are designed to orderly and logically visualize the relationship between key facts, presenting materials symbolically and summarizing information

Social Science Instructional Materials

- **Maps** are reduced, simplified and plain representative of the earth's surface.
- **Maps are useful** :
  - They are used to show the distribution of climate, population, vegetation, land forms etc.
  - To show locations, size, shape, distance and area
  - To show slope and elevation
  - To give a picture of places
  - To illustrate the effect and magnitude of events

Social science instructional materials

- Lambert & Balderstone (2000) added that **televisions** in the classroom are making an increasingly significant contribution to the teaching and learning of **geography** where pupils can learn about other cultures and develop their sense of place.
- They also reported that besides TVs, **photographs** and **slides** are also important sources of visual materials that help teachers to bring **reality** into their classroom.
- Such media also assist in developing students' **knowledge, vocabulary, awareness and interpretation skills.**

Social Science Instructional Materials

- **Chalk or Marker Board**

- Keep it clean
- Write or draw large enough for everyone in the group to see.
- Use colored chalk or marker for emphasis.
- Use a pointer when appropriate.
- Erase all irrelevant material.
- Stand to one side of the board to avoid hiding the essential information.

Social Science Instructional Materials

- Perhaps the most used visualizing devise next to the verbal presentation or talk may be the **chalkboard** and predominantly, for copying purposes.
- According to Birara Gebru (2006) several reasons are listed for not using variety of media resources in the teaching-learning process:
  - Lack of initiative or conviction among teachers to use media resource.
  - Lack of training of teachers to produce materials.
  - Lack of resources for preparing instructional media materials.
  - The extra demand of effort, time and money for producing or purchasing media resource materials.

Social Science Instructional Materials

- **Improvised Materials**
- Improvisation is the **making of substitute from local materials** when the real or original equipment is not available.
- Improvisation is the act of **designing and producing** instructional materials from locally available resources **by the teacher** and utilizing such materials to facilitate effective instruction in the classroom.
- Improvised teaching materials facilitate teaching and learning activities in social studies class.

Social Science Instructional Materials

- While we prepare instructional material from local materials we have to be **very careful**.
- For example **while we prepare maps**:
  - Have a single specific purpose for a map
  - Avoid too much detail
  - Make the map as accurate as you can
  - State the purpose clearly in the title
  - Include all the compulsory marginal and boarder information

SELECTING THE RIGHT MEDIA

- **Do some media produce more learning than others?**
- There is **no single medium that is superior** to another in any sense (Smith and Nagel, 1972), but rather its superiority is based on what **contribution it provides to learning in a specific situation and if it achieves the intended objective.**
- Walkin (1982) says that instructional materials have to **meet the learning objectives**, be **validated** and **their impact be evaluated before, during and after use**

SELECTING THE RIGHT MEDIA

- As such, apart from being available and adequate, instructional materials **should also be used appropriately.**
- **No material is entirely self-teaching;** they all require a teacher to set the stage for learning to take place because materials of instruction can be no better than the teachers who use them
- Developing effective teaching application of instructional media needs **time and effort** and this makes the teacher's work quite demanding.
- Some authorities suggest the following criteria in the selection of instructional media (Twoli, et. al, 2007)

SELECTING THE RIGHT MEDIA

i. Select the best available material to ***realize a goal or lesson objective***. ii. The material should make the learning situation ***more realistic and concrete.***

iii. The material should be appropriate for *the age, intelligence, interests and experience of the learners*.

iv. The material should make ***learning easier and quicker***.

v. The material should present information in an ***interesting manner.***

vi. It should supply a ***concrete basis*** for conceptual thinking.

SELECTING THE RIGHT MEDIA

vii. Materials should ***stimulate critical thinking*** of students.

viii. The resource should provide for ***integration of subject matter***.

ix. The material should be ***physically or visually attractive*** in real colour and neatness.

x. The material should present ***up to date information*** on the topic.

xi. This material should be ***worth the time, expense and effort*** involved in its use.

xii. The lesson should be ***content driven and not media driven***.

SELECTING THE RIGHT MEDIA

1. Do the materials fit the objectives?

- Materials should fit the objectives of the course, unit plan and the lesson plan.

2. Are the materials well organized?

- Must relate facts to few basic ideas and concepts.

3. Do the materials prepare the students for the presentation?

- Objectives or advance organizers

4. Are the materials well designed?

SELECTING THE RIGHT MEDIA

5. Have the materials been presented in a technically appropriate manner?

- Not “over presented” neither “under presented”

6. Do the materials provide sufficient repetition through examples, illustrations, questions and summaries to enhance understanding of content?

7. Is the material suitable to the reading level of the students?

8. Does the difficulty of the materials match the abilities of the students?

Lists of media that can be used to demonstrate certain phenomena

Reasons for media use	Examples
To form a clear idea of something	*Real object, model*
To stress the essential and leave the non-essential in the background	*Model, scheme*
To give visual access to something which may be inaccessible	*Model, picture, photo, poster, film*
To clarify abstract information which may be difficult to communicate verbally	*Diagrams, columns of figures*

Lists of media that can be used to demonstrate certain phenomena

Reasons for media use	Examples
To promote mental activities of students	*Hand-outs, textbooks, films, pictures*
To give feedback to the teacher about student progress/achievement	*Tests, study guides with assignments, hand outs with questions*
To encourage emotional response	*Films, photos, poems*
To support the work of the teacher	*Sound recordings, any medium*
To give tests	*Any medium*

Related Theories to the Use of Instructional Media in Teaching

The Component Display Theory

- The Component Display Theory (CDT) developed by Merrill David (1983) argues that instruction or teaching is more effective to the extent that it contains all primary and secondary forms, that a complete lesson consists of objectives followed by some combination of rules, examples for practice, feedback and ***teaching aids i.e. instructional materials.***

Related Theories to the Use of Instructional Media in Teaching

The Cognitive Load Theory

- The Cognitive Load Theory (CLT) by John Sweller (2005) states that the ability to learn and the mental capacity of a learner is limited to the leaners' age and mental ability and that learners may receive overwhelming information in terms of too much content and complex concepts, and when the ***instructional materials*** are not properly utilized, this will result in over-load where students are provided with more content than they can learn or handle

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A good aid is like a window, it should not call attention to itself, it should just let in the light.



I thank you !!!