

**THE UNITED REPUBLIC OF TANZANIA
NATIONAL EXAMINATION COUNCIL OF TANZANIA
DIPLOMA IN SECONDARY EDUCATION EXAMINATION**

750

EDUCATIONAL MEDIA AND TECHNOLOGY

Time: 3 Hour.

ANSWERS

Year: 2009

Instructions

1. This paper consists of sections **A** and **B**.
2. Answer all questions in sections **A** and **four (4)** questions from section **B**.
3. Read each question carefully before you start answering it.
4. Cellular phones and other unauthorized materials are **not** allowed in the examination room.
5. Write your **Examination Number** on every page of your answer booklet(s).

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1. Mention four roles of educational media in lesson delivery.

Educational media helps to clarify complex ideas by presenting them in simpler, visual, or auditory formats. For example, a diagram of the heart can make the process of blood circulation easier to understand.

It captures learners' attention and increases their interest in the topic. Media such as videos, real objects, or posters make the lesson more engaging than plain lecture.

Media enhances memory retention because learners are more likely to remember what they see and hear than what they read alone. Visuals and demonstrations make the lesson more memorable.

It supports active participation by encouraging learners to observe, ask questions, and interact with the content. Media-based lessons often stimulate discussion and critical thinking.

2. State four characteristics of well-prepared instructional materials.

They must be relevant to the topic and aligned with the learning objectives. This ensures that the materials support the intended outcomes of the lesson.

They should be simple and clear, avoiding unnecessary details. Learners must be able to understand the message quickly and easily.

Well-prepared materials are durable and easy to handle during class. They are made from quality materials and can be reused without damage.

They must be suitable for the learners' level in terms of language, content, and design. The layout, colors, and wording should be appropriate for the age and ability of the students.

3. Identify four disadvantages of using digital media in classrooms with poor infrastructure.

Lack of electricity means that devices such as projectors, computers, and radios may not function, limiting the ability to use digital tools effectively.

Poor internet connectivity restricts access to online learning platforms, videos, and educational websites, making digital media almost useless in such environments.

Digital equipment is often expensive and may not be available in every classroom. Without adequate supply, students may not benefit equally.

Teachers may not have adequate training to operate digital media tools, leading to poor integration in the teaching process and wasted class time.

4. List four common sources of instructional media in Tanzanian schools.

Textbooks provided by the government or NGOs serve as the main source of structured content in many schools.

Teachers create their own charts, flashcards, and models using local materials to support the lesson when other media are unavailable.

Radio and TV educational programs like those aired on TBC are used in some schools to broadcast curriculum-based lessons.

Community organizations or donors may supply printed materials, digital devices, or posters to schools as part of educational support initiatives.

5. Mention four reasons why improvisation of teaching aids is important.

Improvisation helps to overcome the shortage of standard teaching materials, especially in rural or underfunded schools.

It allows teachers to create materials that are directly relevant to the specific lesson or local environment, making learning more meaningful.

It encourages creativity and resourcefulness among teachers and learners, improving their problem-solving and innovation skills.

Improvised materials are usually cheaper and made from locally available items, reducing reliance on costly commercial teaching aids.

6. State four limitations of using chalkboard as a teaching medium.

It is time-consuming as the teacher has to write everything by hand during the lesson, which reduces teaching time.

It offers limited space for displaying content, especially in complex topics that require multiple diagrams or explanations.

Chalk dust may cause respiratory issues for both teachers and learners, especially in poorly ventilated rooms.

It does not support audio or movement, making it less effective for demonstrating dynamic processes or engaging learners fully.

7. Mention four techniques for maintaining learners' attention when using media in class.

Using questions related to the media keeps learners alert and involved. It encourages them to observe carefully and think critically.

Incorporating humor or stories within the media content helps to maintain interest and reduce boredom.

Using colorful and well-designed visuals such as charts, posters, or videos draws learners' eyes and helps keep them focused.

Changing media types within the lesson, such as moving from a video to a discussion or from a chart to a demonstration, prevents monotony.

8. List four precautions a teacher should take when handling audio-visual equipment.

The teacher should check that all equipment is working before the lesson begins to avoid delays or interruptions.

Electronic devices should be handled with dry hands and away from water or unstable surfaces to prevent accidents.

Cables and plugs should be arranged properly to avoid tripping or electrical hazards during use.

The teacher should store the equipment in a secure, clean, and dry location after use to protect it from damage and theft.

9. Give four reasons why lesson objectives must guide media selection.

Lesson objectives determine what learners are expected to know or do at the end of the lesson, so the media should support these outcomes directly.

Objectives help the teacher select the most suitable type of media—whether visual, audio, or practical—based on what needs to be achieved.

Aligning media with objectives avoids wasting time on irrelevant or distracting materials that do not contribute to learning goals.

It ensures that media use is intentional and focused, leading to effective delivery and better learning results.

10. Identify four ways in which media can help improve student assessment.

Media such as charts or diagrams can be used to test learners' understanding through interpretation or labeling tasks.

Videos or audio clips can serve as the basis for comprehension questions, testing both listening and analytical skills.

Practical media like models can be used in assessments where learners are asked to demonstrate a concept, such as assembling a system or explaining a process.

Media can support peer assessment activities, where learners evaluate each other's work based on visual or audio content presented in class.

11. Discuss how instructional media can be effectively used to promote learner-centered teaching in competence-based education.

Instructional media supports learner-centered teaching by encouraging students to take an active role in their own learning. For instance, using media like role-plays, models, or charts allows learners to explore content, ask questions, and construct meaning based on their own observations rather than passively listening to the teacher.

Media such as group discussion videos or interactive activities help learners to collaborate and engage with content practically. This promotes critical thinking, teamwork, and communication, which are essential skills in competence-based education.

Using media also allows for differentiated instruction, where different learners can interact with materials suited to their learning styles. Visual learners may benefit from posters, while auditory learners may understand better through audio recordings or teacher commentary.

Learners are also empowered to create their own media, such as drawing charts or recording audio responses, which builds confidence and ownership of the learning process. This supports the shift from teacher-centered to learner-centered classrooms.

Lastly, media use in learner-centered teaching allows for real-world application. When learners watch videos or manipulate tools, they gain hands-on experience and see how knowledge connects to practical situations, reinforcing competence development.

12. Analyse the role of media in helping students understand complex scientific or abstract concepts in secondary education.

Scientific and abstract concepts can be difficult for students to grasp through words alone. Instructional media simplifies these concepts by breaking them into visual, step-by-step representations, making them easier to understand. For example, an animation showing the water cycle helps students visualize the process, which is more effective than verbal explanation alone.

Media like models and diagrams provide a physical or visual reference for abstract ideas. A model of the atom, for instance, makes the unseen structure of matter more concrete and understandable to learners.

Audio-visual tools such as documentaries or simulation videos present complex experiments or natural phenomena in a way that learners can observe repeatedly. This improves understanding and allows learners to study processes that would be difficult or impossible to replicate in the school environment.

The use of media also allows learners to interact with content at their own pace. They can pause, replay, or review materials as needed, which supports deeper learning of challenging topics.

Moreover, by engaging multiple senses—seeing, hearing, and sometimes touching—media strengthens retention and comprehension, helping learners grasp and remember difficult concepts more effectively.

13. Examine the ethical considerations teachers must observe when selecting and using media in a diverse classroom environment.

Teachers must ensure that media content is culturally sensitive and does not promote bias, stereotypes, or offensive language. In a diverse classroom, learners come from different backgrounds, so the media used should respect all cultures and values.

It is important to consider the emotional impact of media. Materials with graphic, violent, or disturbing content should be avoided, especially if they may cause fear, trauma, or discomfort among learners.

Teachers should avoid media that promotes gender inequality or discrimination. For example, a video that portrays girls as less capable than boys should not be used, as it reinforces harmful stereotypes and goes against inclusive education principles.

Copyright and intellectual property rights must be respected. Teachers should not use or distribute media illegally copied or downloaded. Instead, they should use open-source materials or obtain permission when necessary.

Finally, fairness in access must be observed. If some learners cannot access digital tools due to disability or lack of devices, the teacher must provide alternative formats to ensure all students benefit equally.

14. Evaluate the importance of instructional media in addressing behavioral and attitudinal change among students in secondary schools.

Instructional media such as drama, role-play, or videos can influence students' attitudes by presenting real-life situations that relate to their experiences. A video on peer pressure, for example, may help students reflect on their behavior and make positive choices.

Posters and charts with powerful messages can be displayed in schools to reinforce desired behaviors such as cleanliness, respect, punctuality, and teamwork. These materials act as constant reminders and gradually influence student conduct.

Radio programs and recorded testimonies from people affected by issues like drug abuse or early pregnancy provide emotional stories that students can relate to. These stories may inspire behavioral change more effectively than formal lectures.

Media supports attitude formation by allowing learners to discuss and reflect on moral or social issues. Group discussions based on media content promote critical thinking and help students express and evaluate values.

Additionally, consistent exposure to positive messages through media can reshape students' perceptions and beliefs over time, fostering long-term character development and a supportive school culture.

15. Explain how media planning contributes to efficient time management, resource use, and smooth lesson implementation in daily teaching practice.

Media planning allows teachers to prepare materials in advance, ensuring they are ready and functional during the lesson. This reduces the chances of last-minute disruptions and saves time that might be wasted searching for resources.

It helps teachers organize their lessons better. Knowing when and how to use media allows smooth transitions between lesson stages, such as from explanation to demonstration, without confusion or delay.

Effective media planning prevents unnecessary duplication or waste. Teachers can reuse well-prepared materials or borrow from colleagues, reducing the need for frequent purchases or printing.

When media is planned properly, teachers can allocate specific time within the lesson for media use, student interaction, and assessment. This leads to balanced lessons that stay within the allocated time.

Lastly, planned use of media ensures the right equipment is reserved or booked on time, especially in schools where resources like projectors or radios are limited. This promotes smooth lesson flow and reduces competition over shared tools.