

# **Unit 3**

## **Instructional Media**

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## **Instructional Media**

Instructional media are “the different ways and means by which information can be delivered to a learner” (Heinich et al., 1993, p.5). In one case the selected medium may be a video, in another it may be a teacher delivering the instruction, and in still another it may be the use of an overhead transparency. Each medium represents a means of presenting information to the learner. Important questions involving the manner in which information is delivered include the following:

- What forms of media are available ?
- What impact, if any, do the different forms of media have on student learning ?
- Under what conditions can this potential impact be altered ?
- How is each media format most effectively selected and used ?

When investigating the answers to these and similar questions, research in the areas of perception, cognition, communication, and instructional theory comes to the forefront. For every learner and teacher, the central concerns are how information can be transmitted and what happens to the information once it has been received by the individual learner. Research shows that various forms of media and their respective selection and utilization processes directly impact what the learner perceives and how information is retained and recalled (Kozma, 1991).

Instructional media for teachers and learners have the potential to

- present the materials in a manner readily perceived, used, and assimilated by the learner (e.g., a video can clearly illustrate how cells divide in the early stages of reproduction)
- deliver materials in a teacher-independent manner, thus allowing students some independence and control over how much of the material they will experience and when (e.g., students can rewind or fast-forward portions of an audiotape to match their own needs for learning)

- allow learners to experience the materials through various senses (e.g., seeing the projected pictures, reading the textual materials, and hearing a verbal description of the same content)
- provide learners with repeated and varied experiences with subject matter in order that they construct their own understanding or meaning
- gain and maintain learners' attention to the subject matter
- motivate students toward some goal
- present information in a manner that otherwise could not be experienced by the individual learner (e.g. events can be speeded up or slowed down. Objects can be decreased in size (e.g., the universe) or increased in size (e.g., an atom)
- accommodate varying sizes of audiences in an effective and efficient manner

(Newby et al, 1996, 18-19)

## **Types of Instructional Media**

Instructional media are the means of carrying information between the teachers and the students. The types of media for learning range from the traditionally employed ones such as real objects and models, text, visuals (such as chalkboard, word cards, sentence strips, pictures, and maps) display board, overhead transparencies, slides and filmstrips, audio, video and film, and television to high technology media such as computer software (CD-ROM and CAI), and multimedia. Next we will give you a glimpse of what some of the often used media look like and how they are used.

**Chalkboards** Chalkboards are every where and they come in all sizes, shapes, and several colors. They do not need a bulb or an electrical outlet, and they say what you want them to say. You can prepare them ahead of time and use them as you teach. (Freiberg and Driscoll, 2000, 378) Chalkboard get daily use in most classroom, but they also get misuse. Look at the guidelines for effectiveness:

1. Keep your words large enough, dark or white enough, and clear enough to be seen in locations around the classroom.
2. Avoid filling the board with so much writing that students get confused.
3. Protect the writing surface with proper cleaning and the appropriate writing materials (do your school advancework with the custodian).

(Freiberg and Driscoll, 2000, 379)

**Overhead Projector** An overhead projector uses a sheet or a roll of transparent film, clear acetate. You can prepare a sheet ahead of time by using a printer or a copy machine or writing with a transparency pen, or use commercially prepared materials. You may also write on the transparency while teaching, but it takes time and skill. An advantage of using the overhead projector is that it allows you to face students; however, if you write on it much during your teaching, you lose the advantage of seeing faces, questions, and behavior. Some guidelines for using an overhead projector are:

1. Keep your image simple and readable (too much information is distracting).
2. Turn the projector off when not in use (the noise and light are distracting).

3. Use a good quality pen for making sheets (black for most writing; color for interest only).
4. Check the seating of students for clear vision of the image (sit in a few desks to test out the image).
5. Use a piece of white cardboard to cover all the points or items except the one you are discussing.
6. Allow students to write their answers on the overhead.

(Freiberg and Driscoll, 2000, 374-375)

*Records, Audiotapes, and Compact Discs* With the addition of headphones, tapes, records, and CDs can be used by one student or a group of students. Because of the simplicity of operation. There are few guidelines:

1. Check volume for different locations of the room.
2. Keep electrical cords flush with floor or wall so that you and your students don't trip.
3. Have the intended starting point positioned on the tape or record ahead of time.

(Freiberg and Driscoll, 2000, 377)

In using films, videotapes, and videodiscs, the same guidelines regarding vision and volume for students apply here. In addition, we want to focus on one major guideline for using films and videotapes, and that is to use them interactively. Remember that *interactive* means that your students must do more than listen and watch. They must respond to the tape or film or disc, and you can make that happen with questions, advance organizers, and discussions.

(Freiberg and Driscoll, 2000, 378)

## Community Resources

Gathering information about the community context has many advantages for you: an understanding of your students, support for your management decisions, sources of relevant curriculum, and assistance and resources for your classroom. Your best advancework strategy here is to survey the neighborhood and gather information in an organized way for later use. (Freiberg and Briscoll, 1996, 117)

...For this chapter, we will discuss the community resources of guest speakers and field trips. For many curriculum topics, these resources are likely to have a greater impact on the learners than most classroom activities would (Pettit & Ochoa, 1991).

**Guest Speakers** Remember How Mr. Davenport checked with businesses to find out which employment agencies had good reputations ? He also went to visit the person who would be meeting with his class. We suggest that you check on your potential speaker to be certain the person can present well, is personable, and is reputable.

*Preparing the Guest Speaker* It is important to prepare your guest in order to achieve your teaching purposes. When you meet with your guest, provide some of the following information:

1. The objectives and expectations of his or her visit.
2. Information that the students already know and about which they are curious.
3. Classroom management routines (e.g., students will or will not raise hands to ask questions).
4. Plans for related teaching and learning experiences.

Think about how comfortable your guest will be with this information, and how much better he or she will be able to relate information to the other experiences you have planned.

*Preparing Students for the Guest Speaker* Preparing students for the guest can begin with the same information found in the previous item 1,2 and 3. Encourage them to develop questions beforehand, to discuss expectations, and to connect the speaker's visit with other learning experiences. With most students, you can share the responsibility of greeting the guest, introducing the guest, and expressing appreciation to the guest (verbally or in written form). Be

sure to take care of school and district communication regarding your guest (e.g., forms and policies).

After the visit, guide students in processing the information. A discussion time or a writing experience will provide an opportunity for you and your students to hear each other's perceptions and information. You may structure it with directions such as, "List three things you learned from our guest, and three questions that weren't answered." You may simply ask students to write their thoughts about the presentation. Even the task of writing thank you letters will be a processing experience, especially if you ask students to describe specifics of the visit in their letters.

One of the benefits of using a speaker is the connection you make between your curriculum and the community. Field trips accomplish the same link.

(Freiberg and Driscoll, 1996, 354-355)

## Field Trips

*A field trip* is “a visit to a place outside the regular classroom designed to achieve certain objectives that cannot be achieved as well using other means” (Mason, 1977). Although this definition has been with us for some time, its specification, “that cannot be achieved as well using other means” is especially timely with today’s limited budgets.

*Selecting a Field Trip* School districts have limited resources for field trips, so make careful decisions about using trips to vary the stimuli. They have potential for unique firsthand experiences, but they must be carefully selected.

When selecting a field trip, stop and consider whether the field trip will distract, disturb or bore students. When you identify a trip that will stimulate, focus, and involve your students, then continue your preparation.

Many teachers have begun their selection process in the immediate environment of their school, eliminating transportation concerns and expense. Johns and Liske (1992) have described opportunities right within the school yard that include observation, classification, hypothesizing, inferencing, predictions, and measurement aspects of learning. Activities on the school grounds can also enhance such skills as comparing, describing, drawing conclusions, investigating, mapping, sequencing, interpreting, and writing for all grades (Finlay, 1991). We suggest that you begin by taking a walk around the immediate area of your school and make a list of possibilities.

*Preparing for a Field Trip* To prepare for a field trip, we suggest the following steps:

1. Schedule the location with your school or district, students, and parents.
2. Visit the location to preview what students will see, hear and learn ; to identify potential problems or dangers; and to asses for instructional planning
3. Arrange for permission forms, transportation, and chaperones or assistance. In addition to the basic steps, experienced teachers use creative preparations to make field trips even more successful.



In addition to these logistical steps, we encourage you to make the most of your field trips by previewing with students and coordinating the trips with other learning activities. With the cost and effort that go into a field trip, you want to be assured of maximum learning outcomes.

*Processing Field Trips* Student journals are an excellent way of processing the trip's outcomes. We recommend the same attention to processing of field trips that we described for guest speakers-- discussions, critiques, and writings. We have also seen students take photographs, make tape recordings, and draw impressions of a field trip during and after the experience.

(Freiberg and Driscoll, 1996, 355-356)

## **The Instructional Use of Online Resources**

As schools around the world establish connections to the Internet, and teachers and students gain proficiency with navigating through the vast quantities of readily available information, the true educational potential of the World Wide Web can finally begin to be understood. The web can be dynamic tool capable of assisting educators in propelling learning to exciting and compelling levels and of bringing education to any students, anywhere, at any time (Ellsworth, 1997) Students can learn from experiences and communication that would never be possible within the scope of an isolated classroom. But instructional resources on the web should never be mistaken as substitutes for the skill and intuition of human teachers, or even thought of as replacements for traditional methods of instruction. Instead, these resources, when used appropriately, should be considered as rich enhancements of a complete educational plan.

The key to the effectiveness of any instructional tool lies partly in the tool's unique attributes, but to a larger degree in how the tool is actually utilized. This is very much the case with educational Internet resources. No matter how flashy or cute or seemingly educationally relevant a website or other resource is, if time is not taken to carefully plan for its use as part of an entire instructional sequence, the potential benefits to learners may be squandered. The first step in planning learning experiences that involve online resources is to consider the goals not only for one specific activity but also for the class and even the school as a whole.

Understanding the place of an Internet-based activity within the larger scope of an entire curriculum will help teachers plan meaningful and effective learning experiences. Projects should be organized and well defined, just as a traditional lesson taught without technology would be (Barron, 1996). The structure of the lesson should fit with an individual teacher's teaching style and philosophy. If child-centered work is common in particular classroom, for instance, then child-centered work should be considered for an Internet-based lesson. Of course, this should not discourage teachers from exploring new methods and letting the technology facilitate change in their teaching. It simply must be understood that any change that occurs is not the sole result of the use of any technologies. The Internet can supply the resources to motivate teachers and open

their minds to the world around them available online, but this will happen only with the conscious desire of teachers to change their teaching. (Bitter and Pierson, 2002, 161-162)