Alabama Professional Development Modules

Alabama Department of Education
Dr. Ed Richardson,
State Superintendent of Education

Consultants:

Dr. Judy Bassham, **Dr. Judith Boser**, **Dr. Russell French,**
Dr. George Malo, **Mr. Joel McCay**

Developed with funding by Alabama's Title II
Teacher Quality Enhancement Grant

Alabama Professional Development Modules

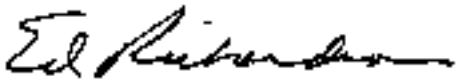
Welcome Message

Dear Alabama Teacher or Administrator:

The Alabama Department of Education is happy to make available to you this professional development module. Created as part of Alabama's Teacher Quality Enhancement Project, these modules are intended to help you augment your knowledge and skills in the PEPE competencies and indicators. These competencies and indicators are the descriptions of teaching performance that serve as the basis for the PEPE Teacher Evaluation System. As you know, this information is based on research in effective teaching; i.e., teaching that produces student learning and best practice in Alabama classrooms and classrooms throughout the country.

We hope that this module, and the others that you may study, will be an enjoyable approach to professional growth. More importantly, however, we hope that it will be valuable to you and, ultimately, to those you teach.

Sincerely,



Ed Richardson State Superintendent of Education

Alabama Professional Development Modules

SELECTING AND USING INSTRUCTIONAL RESOURCES TO ENHANCE INSTRUCTION

(Supports PEPE Teacher Indicator 1.3)

Alabama Department of Education
Dr. Ed Richardson, State Superintendent of Education

Consultants: Dr. Gena Riley
Jacksonville State University

Dr. Judith Boser, Dr. Russell French, Mr. Joel McCay
Institute for Assessment and Evaluation
University of Tennessee

Developed with funding by Alabama's Title II
Teacher Quality Enhancement Grant

A. Selecting and Using Instructional Resources to Enhance Instruction

This module has the following parts:

A. introduction to the module

B. an information section on selecting instructional resources

C. a self-quiz titled "Check Your Knowledge" for part B

D. an information section on creating, evaluating, and selecting Instructional Resources

E. a self-quiz titled "Check Your Knowledge" for Part D

F. practice activity

G. classroom application

H. references and resources

Because this module is lengthy, it has been divided into two informational sections, each followed by a brief self quiz. The practice activity (F), classroom application (G), and references and resources (H) utilize and support content in both information sections (B and D).

To complete this module you will need pencil or pen and paper.

B. Types and Sources of Instructional Resources

In the PEPE teacher evaluation interview, teachers are asked how they make decisions about instructional methods and resources and why they have made those decisions. That question is the key to this module.

Making decisions is a natural part of life. One of the most important decisions faced by you as a teacher is how to select instructional resources that ensure or enhance instruction. You implement the curriculum adopted by the school district in which you teach, using state approved and district approved textbooks and other resources provided to you. However, you are responsible for student learning, and that involves going beyond the resources provided, if necessary, to create active, motivating learning experiences for your students. When you choose instructional materials, they should be chosen on the basis of their contributions to the learning outcomes rather than on the basis of availability or ease of use.

Instructional materials should relate directly to the purpose(s) and objective(s) of the lesson; extend content or provide for remediation, reinforcement or enrichment. They should be appropriate to student differences such as ability, achievement, interests, and learning styles.

Therefore, regardless of the instructional method used in the classroom, teachers must consider each of the following before selecting instructional resources:

* The objectives: What skills/concepts do the lesson objectives specify for mastery?

* The students: How many students are there? What are their general characteristics (such as grade level) as well as their ages, socioeconomic status, previous experience, and any special needs they may have? What specific knowledge or skills do they already have? What are their learning styles and preferences? For instance, do they prefer audio materials, visuals, interpersonal experiences, or hands-on learning?

* The learning environment: Is the space large enough to allow you to conveniently divide the students into small groups? Will it allow the students to work individually without distractions?

* The available resources: What resources are available (including materials, equipment, funds)? What are your limitations? How much time would the use of a particular resource require?

Instructional resources include items purchased, prepared or assembled for student use as well as those needed by the teacher for his or her own use during instruction. A list of resources needed for a lesson should be included in the lesson plan. Resources needed for a unit of work should be listed in the unit plan.

Materials selected for student use should be consistent with the students' levels of comprehension, ability and responsibility. Examples of resources for student use include handouts, study guides, bibliographies, project guideline sheets, books, workbooks and resource materials for students; computers and software; other technology such as printers, scanners, calculators, PDAs, and various other items or equipment specific to a subject area; e.g., art, music, vocational studies.

You will need to gather and prepare resource materials for yourself that will help you prepare for instruction or that you will use during instruction. These could include transparencies and overhead projector, notes, texts or other printed resource materials, pictures, posters, charts, maps, globes, computer and computer programs/software, smart board, filmstrips and/or films and projection equipment, audio tapes, video tapes, VCR, DVD, television, tape player, laboratory equipment, supplies.

Instructional Resources Beyond the Student's Textbook

There are several categories of resources available to a teacher that go beyond a textbook. They include:

* Textbook Support Materials. Suggested activities, learning experiences, and resources are commonly found in the Teacher's Edition. The publisher of the textbook series may also have additional support materials available, such as blackline masters of practice materials/worksheets, workbooks, overhead transparencies, diagnostic and assessment materials, and record-keeping materials. The school may have purchased additional supplementary "extras" such as kits, charts, cards, audiocassettes, games, computer software, and videos. For primary children, there may be "big books" that are a component of the reading series. Textbooks from other publishers can also be good resources.

* State-approved Curriculum Guides. The curriculum guides approved by the state and local school boards commonly include subject-specific, grade-specific course goals and a fairly detailed outline of curricular content. Recommended instructional activities, an annotated bibliography, and annotated lists of films, filmstrips, videotapes, computer software, and other instructional resources are usually included as well.

* Workbooks. Workbooks can be used for student follow-up activities. Students can work on different exercises or use different workbooks. Workbook activities should be checked for accuracy and should emphasize higher order thinking and problem solving rather than rote learning, not busy work where students mechanically follow directions and are required to exercise little thought or originality. Be careful in selecting workbooks or worksheets. Many are lacking in motivational qualities, as well as higher order thinking skills.

Locating Resources

* Journals and publications of professional organizations. (See References and Resources at the end of this module.)

* The classroom. A classroom library can offer interesting and instructional material to provide introductory, background, or follow-up information. Resource materials could include books, brochures, magazines and journals, filmstrips, and computer programs. Specialized classrooms such as science laboratories or gymnasiums offer specialized resources, some of which could have value to instruction in other settings.

* The school. A school library/media resource center usually contains books, audiovisual materials, projected and non-projected visuals, audio media, films and videos, computer-based instructional resources, simulations, and games. The school building and/or grounds often become a site for exploration and learning.

* The community. In addition to making available speakers who visit the classroom, the community offers opportunities for students to leave the classroom to study real processes, people, and objects that might include libraries, museums, zoos, businesses, farms, factories, government services, and monuments. The community can be an "after school" resource for students, as well as a "during school" resource.

Media Resources

There are also several types of mediated resources that a teacher can select or create to deliver or augment instruction. Audio media, visual media, and specialized media are briefly discussed below.

Audio Media

Audio media convey information by sound. Some of the audio media that you might find in your classroom or in the school's library/media resource center are phonograph records, audiotapes (either pre-recorded or blank), compact disks that contain music, speeches, drama, poetry, animal and nature sounds, student presentations, etc. Many teachers create audiotapes of lictures, project directions, student presentations, or other content for student use - particularly students who are aural learners (those who learn best by listening). There are several advantages to appropriate use of audio media:

1. They are inexpensive.

2. They are readily available and simple to use.

3. They can be used by students who do not read.

4. They are essential to learning for aural learners (those who learn primarily from listening).

5. They can record student presentations for playing back.

6. They can present stimulating verbal messages from well-known people from the past or present.

Visual Media

Projected visuals include slides, overhead transparencies, and computer-generated PowerPoint or other presentations that can be projected (onto a screen, whiteboard, wall or other plain surface). Some of the items listed below under "Non-Projected" can also be projected (graphic materials, still pictures, maps, etc.). DVDs and videocassettes typically contain visual presentations, as well as aural ones.

Non-projected visuals that might be available in your classroom or in the school's library/media resource center include:

chalkboards,
multipurpose boards (such as white boards),
bulletin or display boards,
graphic materials (drawings, charts, graphs, posters, and cartoons),
still pictures (photographs, postcards, illustrations from periodicals and books),
flip charts (commercially prepared or blank),
maps and globes,
models (a three-dimensional representation of something not visible to the student , such as a replica of the human ear, that may be smaller, larger, or the same size as the real thing), and
realia - real things including animals, plants, artifacts, coins, and minerals.

Specialized Equipment/Resources

Specialized instructional resources range from several types of calculators that might be used in mathematics and science classes to specialized machinery and equipment applicable to vocational education programs to kilns and other resources for an art class to specialized equipment essential to special needs students.

While we won't try to describe and discuss these resources here, other teachers, instructional supervisors, and building and system administrators should be able to assist you in identifying, locating, and selecting resources to enhance instruction in special settings and content areas.

Some Considerations in Selecting Certain Visual Equipment and Resources

Selecting visual resources isn't a matter of simply grabbing what is available. Consideration needs to be given to what the resource can and can't do and how to best use it.

Chalkboard

* Most students find it difficult to think while they are copying material..

* Students need time to copy.
* Advance preparation is helpful unless constructing lists produced by class discussion.

* The chalkboard is best used for essential textual information, not everything the teacher wishes to say.

* Use of color (in the chalk) can add interest, identify groups, or provide emphasis.

Overhead Projector

In addition to the items listed above for Chalkboards,

* They can be used in normal room lighting..

* They allow teachers to face their students.

* They can display more than just writing or spontaneous drawings: slides; silhouettes; graphs; small, opaque objects; enlarged newspaper articles and other print materials that can be put on a blank transparency with a computer printer or a photocopier.

Video

Instructional technology such as videocassettes or DVDs can be an effective means of enhancing instruction.

* They can provide a bridge between the abstract world of the textbook and everyday reality.

* Students may need advance preparation to develop "critical viewing" skills; i.e., visual literacy.

* They can be stopped temporarily to discuss important moments as they occur.

* Videotaping students' in-class presentations offers students the opportunity of seeing themselves in action.

Computer-based Instructional Resources

The computer in your classroom can be used to assist instruction and enhance learning. It is a tool that can help you manage instruction through computer-based testing, record keeping, and computer prescription of media, materials, and activities. It can generate puzzles, worksheets, illustrations, diagrams,, and other instructional materials. It can provide access to both human resources and an array of multimedia resources through the Internet, web, and CDs or DVDs.

Enhancing Instruction

Computers can be used to incorporate various types of media into a single presentation for classroom use. Software programs can blend text, diagrams, animation, and recordings of audio and video to enhance classroom instruction. The use of multimedia presentations, either ones you have created or ones you have purchased, can be appropriate in the following situations:

* to present demonstrations that otherwise would have a considerable safety risk; e.g., dangerous laboratory experiments;

* to present demonstrations that otherwise would have a considerable safety risk; e.g., dangerous laboratory experiments;

* to recreate an experience that would otherwise be cost prohibitive, such as a visit to the Louvre;

* to demonstrate phenomena that cannot be observed in real time or seen with the unaided eye, such as geological movements or chemical reactions;

* to demonstrate intricate parts of dynamic processes, such as the different phases of weather changes. Certain complex interactions are difficult to describe verbally and may be best demonstrated through animation or time lapse photography;

* to provide more in-depth material or illustrations, such as historic film clips or excerpts of speeches; and

* to provide various hypothetical scenarios, such as population growth in a world region or pollution of Lake Erie.

Communication

Using computers for communication minimizes the usual restraints of time and location. Computers allow students to have greater access to teachers, while teachers can give students more individualized attention. Class communication can occur via e-mail. Students can also be linked to persons outside the school. E-mail has a variety of possibilities:

* Students can submit assignments as attachments to e-mail.

* Teachers may quickly reply to student work with specific comments and recommendations for improvement and give students an opportunity to submit a more polished final work.

* E-mail can increase student-student interactions and student-teacher interactions.

* E-mail can increase teacher-parent communications when parents have access to e-mail.

* Students can have interactions with scientists, business representatives, artists, or others who can provide information, instruction, or just a different perspective on a topic.

* E-mail mentors can be provided for students interested in particular careers.

* Students can interact with students and/or teachers in other locations, particularly locations outside the United States.

THIS CONCLUDES PART 1 OF THE INFORMATION ON TYPES AND SOURCES OF INSTRUCTIONAL RESOURCES.

GO TO THE NEXT SECTION TO CHECK YOUR KNOWLEDGE (COVERING SECTION B).

C. Check Your Knowledge

DIRECTIONS: For each question below, write the letter corresponding to your answer on a sheet of paper.

1. Instructional resources should be limited to those cited by the textbook publisher.

   True

   False

2. E-mail offers many possibilities for enhancing teaching and learning.

   True

   False

3. A teacher is responsible for student learning in a subject area, regardless of the resources provided by the school and school system.

   True

   False

Which of the following are valid reasons for the use of instructional resources? Answer "yes" if it is a valid reason, "no" if it is not.

4. Address student interests

   Yes

   No

5. Motivate students

Yes

No

6. Reinforce what is being taught

Yes

No

7. Appeal to more and different learning styles

Yes

No

8. Demonstrate activities that cannot be conducted in the classroom

Yes

No

9. Relieve the teacher of providing the instruction

Yes

No

10. Factors to be considered in selecting instructional resources include all but which one of the following:

a. Cost

b. Vocabulary level

c. Relationship to your objectives

d. Can be used within your classroom

DO NOT CONTINUE UNTIL YOU HAVE COMPLETED ALL 10 QUESTIONS.

C. Check Your Knowledge - Answers

CORRECT ANSWERS ARE IN BOLD.

1. Instructional resources should be limited to those cited by the textbook publisher.

   True
   (This is only one of many sources of instructional resources.)

   False

2. E-mail offers many possibilities for enhancing teaching and learning.

   True

   False

3. A teacher is responsible for student learning in a subject area, regardless of the resources provided by the school and school system.

   True

   False

Which of the following are valid reasons for the use of instructional resources? Answer "yes" if it is a valid reason, "no" if it is not.

4. Address student interests

   Yes

   No

5. Motivate students

Yes

No

6. Reinforce what is being taught

Yes

No

7. Appeal to more and different learning styles

Yes

No

8. Demonstrate activities that cannot be conducted in the classroom

Yes

No

9. Relieve the teacher of providing the instruction

Yes
(While this may occur, it is not a valid reason for the use of instructional resources.)

No

10. Factors to be considered in selecting instructional resources include all but which one of the following:

a. Cost

b. Vocabulary level

c. Relationship to your objectives

d. Can be used within your classroom
(Remember that other areas of the school, outdoors, and in the community itself offer a variety of valuable resources.)

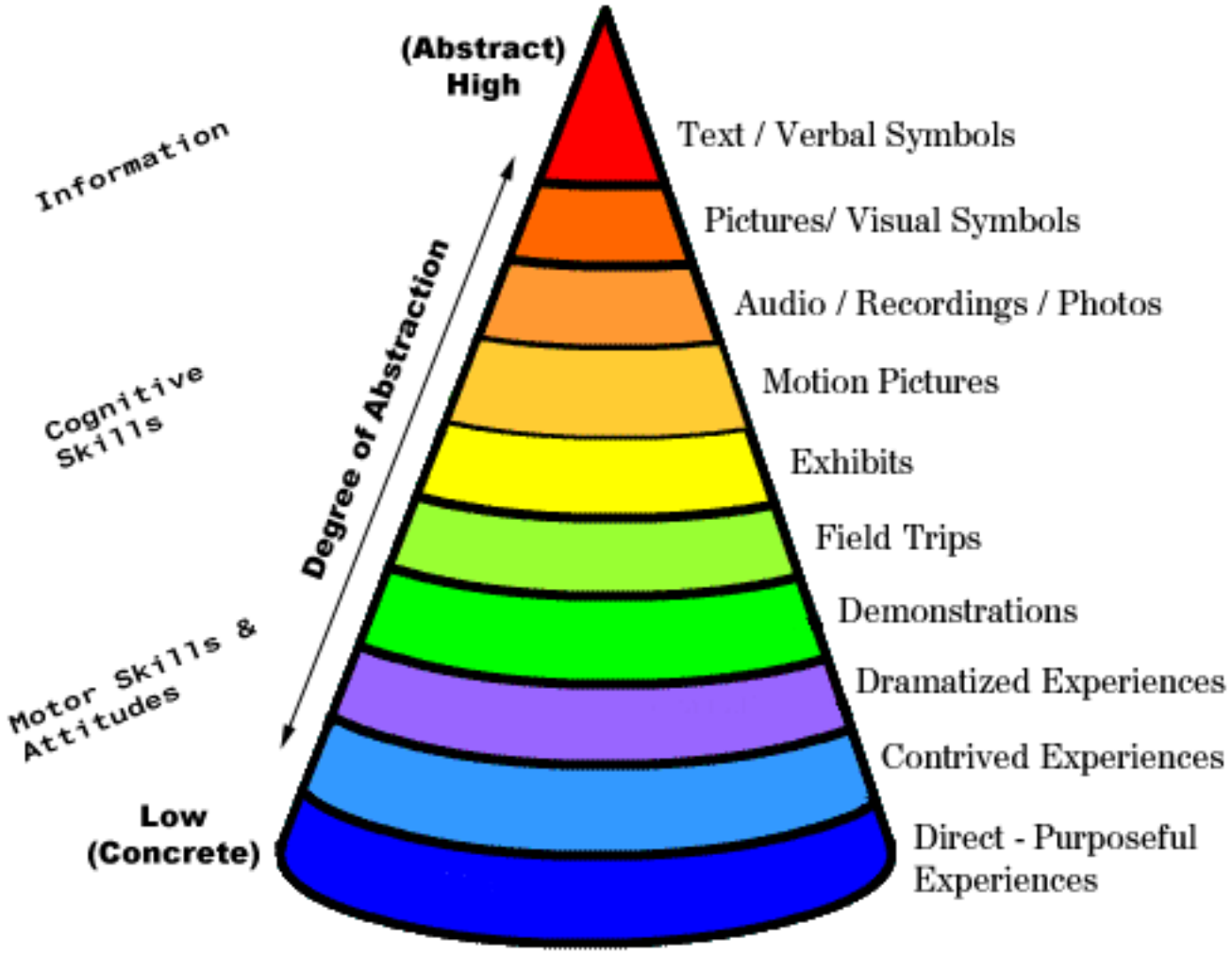
IF YOU ANSWERED SEVERAL OF THESE QUESTIONS INCORRECTLY, REREAD SECTION B.

IF YOU ANSWERED AT LEAST SEVEN OF THE QUESTIONS CORRECTLY, PROCEED TO PART 2 OF MODULE (SECTION D).

D. Creating, Evaluating, and Selecting Instructional Resources

The Cone of Experience

Years ago an educator named Edgar Dale, often cited as the father of modern media in education, developed from his experience in teaching and his observations of learners the "cone of experience" (see Figure 1). The cone's utility in selecting instructional resources and activities is as practical today as when Dale created it.



Graphic courtesy of Edward L. Counts, Jr.

Figure 1. Dale's Cone of Experience

For our purposes at this time, we don't need to examine the cone and its several levels in depth; but as you review it, be aware of several principles and definitions:

1. The cone is based on the relationships of various educational experiences to reality (real life), and the bottom level of the cone, "direct purposeful experiences," represents reality or the closest things to real, everyday life. (Think about somebody's experiences in an apprenticeship or internship.)

2. The opportunity for a learner to use a variety or several senses (sight, smell, hearing, touching, movement) is considered in the cone. Direct experience allows us to use all senses. Verbal symbols involve only hearing. As you move up the cone, fewer senses are involved at each level. Perceptual learning styles are sensory based. The more sensory channels possible in interacting with a resource, the better the chance that many students can learn from it.

3. Each level of the cone above its base moves a learner a step further away from real- life experiences, so experiences focusing only on the use of verbal symbols are the furthest removed from real life. (Think about a student reading material without any pictures or other visuals or a student listening to a lecture that is nothing but words.)

4. Motion pictures (also television) is where it is on the cone because it is an observational experience with little or no opportunity to participate or use senses other than seeing and hearing. The experiences below this one provide opportunity for the learner to enter into the experience in more ways, using more senses.

5. Contrived experiences are ones that are highly participatory and simulate real life situations or activities.

6. Dramatized experiences are defined as experiences in which the learner acts out a role or activity.

When Dale formulated the cone of experience, computers were not a part of educational or home settings, so they aren't part of the original cone. Given the fact that computer technology actively engages the learner, who uses seeing, hearing, and physical activity at the keyboard as well as a range of mental skills, computer-based instruction (if something more than reading script on the screen or rote practice) probably becomes level 4 or 5 from the bottom of the cone. However, we don't know where Dale would have placed it.

The importance of Dale's cone of experience is the tool it provides to help a teacher make decisions about resources or activities. Using your knowledge of the cone, you can ask yourself several questions about the potential value of a resource to student learning:

* Where will the student's experience with this resource fit on the cone? How far removed from real life experience is it?

* What kind of learning experience do I want to provide students through the resources I bring to them? What will this resource add to developing students' ability to apply knowledge and skills in daily life?

* How does this resource augment the verbal and visual (maybe) symbols supplied in the textbook?

* What and how many senses can learners use when interacting with this resources?

We know that the purposes of selecting resources beyond a textbook is to help students learn more or learn something better and to enable them to apply basic knowledge to life and work. How will you make those selections? The principles embodied in Dale's cone of experience can help.

Evaluating Instructional Resources

In evaluating instructional resources, several questions you should ask yourself are important, regardless of the type of resource you are considering:

1. Does the content match the curriculum?

2. Is the content accurate, up to date, and appropriate for the students?.

3.. Do the materials teach and/or reinforce learning effectively?

4. Will these materials be motivating to the students?

5. Do these resources enhance instruction?

6. Is the resource easy for the teacher and students to use?

7. Are the materials of high quality technically?

8. Is the use of this resource practical for my teaching setting (cost, needed equipment, etc.)?

Application of these questions and other criteria to the selection of any material or resource can vary depending upon the context in which you want to use it. For example, you may be considering a computer-based tutorial. Reading level of the tutorial and of your students would be an important part of your evaluation of that resource. However, reading level might not be a serious concern in considering an instructional video.

Creating/Selecting Visuals

When selecting or creating visuals (overhead transparencies, slides, PowerPoint presentations) for use in instruction, some guidelines should be considered:

* Text should be easy to understand and follow.

* Large, bold type is easier to read than smaller type. Italic, script and condensed fonts are more difficult to read than plain text (san serif, such as Arial and Geneva (for MACs) or Verdana for PCs). Font size should be 24 or larger, as are the examples below, and should be readable from the most distant seat in the room. Using combined upper and lower case is preferable to all upper case.

* As a general rule, each visual should contain no more than three levels of information.

* Information listed with numbers, "bullets" or other graphics need not be complete sentences.

* Limit the number of lines per screen/slide/transparency and words per line. Six words per line and six lines per transparency is about the maximum that is desirable.

* Yellow background with black lettering is thought to be the most readable. Three colors should be the maximum in text visuals. Red and green sometimes cause difficulties for students who are color blind.

* The consistent use of colors and format is less confusing for the students. Simple dark-colored backgrounds are best (if a colored background is desired). Most presentation software allows for transitional slides, but their use should be limited so that they will emphasize distinctions rather than distract the students.

* Graphs and diagrams are easier to comprehend than tables.

* Presentation software allows for rearranging the sequence of slides and easy copying of a slide. If a slide needs to be shown more than once during a presentation, it is best to use copies rather than moving the projection sequence backwards through several slides.

Evaluating and Selecting Instructional Resources From Internet Sources

While the Internet makes available a tremendous number of resources to teachers, all resources found on the Web are not equally valuable. ANYONE can put something up on the Internet. There is no review process or standards to ensure quality, so care must be taken by the teacher in selecting them.

A variety of types of resources are available on the Web:

tools, slideshows, and handouts,
readings,
lesson plans,
unit plans,
references and resources,
web-based activities,
projects,
assessments,
demonstrations (scientific experiments, volcanoes erupting, etc.).

Whether you are seeking supplementary information, lesson plans, tutorials, games, virtual tours, or some other type of resource for either your use or for your students to access directly, it is important to evaluate the Web materials before you use them. There is no single model for evaluating Web materials, but there are many commonalities among those that do exist.

* Author: Who developed this work? Is the author named? What are his/her credentials? Does the author seem qualified to present this work? If you find a lesson plan, was it developed (and used) by a teacher?

* Sponsor: What, if any, organization sponsors the site? What type of site is it? (The three-letter code in the URL indicates whether it is a commercial - .com, educational - .edu, government - .gov, or other type of site.) Commercial sites frequently provide educational materials that are high quality. Several state educational agencies support Web lesson plan libraries that are accessible by the public.

* Currency: Can you easily determine the date the page was created or last revised? Does the material seem to be up-to-date? This is particularly important in social studies and science, where developments can occur practically overnight. If links to other sites are provided, are they functional? If not, is enough information provided that you can "search" for the site using a search engine or going to the home site of the particular source?

* Coverage: Does the comprehensiveness of the information suit your purpose? (If you plan to have students access the site, does it fit their needs and comprehension level?) With the amount of information available it probably isn't even possible to provide "complete" information, but it is possible to provide enough information for your needs. Does the material seem free of bias in its presentation? If you are looking for lesson plans, do they specify the grade level of the students for whom they were developed? Are they aligned with appropriate national (and/or state) standards or curriculum frameworks?

* Accuracy: Is the material consistent with what you might find in print or at other Internet sites? Are sources of factual material listed so that you can verify the facts?

* Relevance: How does the material relate to your curriculum? How does it relate to the appropriate standards and/or frameworks at the national, state, and/or school system? How does it relate to your objectives?

Consumer reviews

Some web sites offer consumer reviews of educational materials. One such searchable database is available through the library at the University of Buffalo and contains reviews (written primarily by librarians and faculty from institutions across the U.S. and Canada) of videos, DVDs and CD-ROMs from major educational and documentary distributors. Another searchable web site containing reviews of instructional materials is provided by the Southern Regional Education Board with the support of the North Carolina Department of Public Instruction.

Determining Who Will Use the Resource

When you select instructional resources, keep in mind who the primary user(s) will be: you or the students. Remember two questions you are asked by your evaluator during a pre-observation conference and select resources with those questions in mind:

* What will students be doing during this lesson?

* What will you (teacher) be doing during this lesson?

Keeping it Legal!

As you collect and use instructional resources, you should be aware of the copyright law. Publishers of educational materials are willing to sue those who violate copyright laws. If publishers and educational materials distributors fail to make a profit from sales of their products, the materials available will be fewer in number and of lower quality. Almost all materials which might be used by educators are protected by the copyright law unless it is specifically stated in the work itself that it may be copied and used without permission.

Educators have some special allowances under the concept of "fair use" in copyright law. Following is a list of criteria that specify when educational use of copyrighted work meets the fair use guidelines:

* The educator uses only a brief excerpt from the work.

* The use is spontaneous, spur-of-the-moment.

* The use is not cumulative; that is, it only occurs a single time and does not take the place of purchase.

THIS CONCLUDES PART 2 OF THE INFORMATION ON TYPES AND SOURCES OF INSTRUCTIONAL RESOURCES.

GO TO THE NEXT SECTION TO CHECK YOUR KNOWLEDGE (COVERING SECTION D OF THIS MODULE).

E. Check Your Knowledge

DIRECTIONS: For each question below, write the letter corresponding to your answerr on a sheet of paper.

1. Dale's Cone of Experience encourages educators to plan experiences that will help students apply their learning to real-life situations.

   True

   False

2. Teachers can feel confident that materials found on the Internet are accurate and unbiased.

   True

   False

3. Material that appears in print can be copied and used by teachers without reservations.

   True

   False

4. Visuals are effective when they reproduce complex information in its original form from the textbook.

   True

   False

5. Plain text is preferred for visuals.

True

False

DO NOT CONTINUE UNTIL YOU HAVE COMPLETED ALL QUESTIONS.

E. Check Your Knowledge - Answers

CORRECT ANSWERS ARE IN BOLD.

1. Dale's Cone of Experience encourages educators to plan experiences that will help students apply their learning to real-life situations.

   True

   False

2. Teachers can feel confident that materials found on the Internet are accurate and unbiased.

   True
   (Materials should be evaluated on the basis of author, sponsor, currency, coverage, accuracy, and relevance.)

   False

3. Material that appears in print can be copied and used by teachers without reservations.

   True
   (Be sure to re-read the "Keeping it Legal" section about guidelines for "fair use" in copyright law.)

   False

4. Visuals are effective when they reproduce complex information in its original form from the textbook.

   True
   (Simply reproducing material students already have is not a good use of visuals. Changing data from a table to a chart or graph, however, can aid understanding of the original information.)

   False

5. Plain text is preferred for visuals.

   True

   False

IF YOU ANSWERED SEVERAL OF THESE QUESTIONS INCORRECTLY, REREAD SECTION D.

IF YOU ANSWERED MOST OF THE QUESTIONS CORRECTLY, PROCEED TO THE NEXT SECTION.

F. Practice Activity

1. Make a list of instructional resources available in your classroom. Indicate potential lessons/units for which they might be appropriate.

2. Visit your library/media center in your school. Talk with your media specialist. Make a second list that includes resources available in the library media center. This can also include students who operate equipment. Find out the availability and scheduling requirements.

3. Determine what, if any, resources are available at the school system level and how you can obtain them. Your principal and/or instructional supervisors can be helpful.

4. Explore three Internet sites and evaluate their potential as instructional resources for you.

5. Talk with three other teachers who teach the same grade level and/or content. Include in this group of teachers at least one teacher from another school. Share with them what you have found and ask for additional sources they have used. Ask particularly about resources in the community. Add their suggestions to your lists.

6. Talk with teachers in specialized subject areas in your school (science, P.E., art, music, special education, etc.) Ask them about resources that they have that might be available to you.

PROCEED TO THE CLASSROOM APPLICATION.

G. Classroom Application

Undertake one of the two activities outlined below and share what you are doing with your evaluator, mentor, or a colleague.

Activity 1. Select one or more units with which your students' mastery of the content and/or skills has not been completely satisfying to you.

Locate, evaluate, and select appropriate instructional resources to complement what you are already doing.

For any resource that you decide to use, append the following information to your unit plan:

a. Name of the resource
b. How and where to obtain the resource
c. Cost, if any
d. Objective(s) being addressed
e. How you will use the resource
f. Amount of class time needed
g. Special equipment or personnel not ordinarily present in your room
h. Learning styles addressed

Activity 2. Begin a file that lists the following information for each resource:

For any resource that you decide to use, append the following information to your unit plan:

a. Name of the resource
b. How and when to obtain the resource
c. How to use the resource and instructional unit/lesson for which it is appropriate
d. Evaluative comments

Organize the file by cross-referencing or color coding your system to accommodate the following categories of resources:

Articles from magazines, newspapers, journals, and periodicals Compact disc titles and sources
Computer software titles and sources
CD/DVD titles and sources
Games and game sources
Guest speakers and other community resources
Motivational ideas
Pictures, posters, and other stills
Questions Resources to order
Sources of free and inexpensive items
Student activity sheets
Supply catalogs
Thematic Units
Unit and lesson plan ideas
Videocassette titles and sources
Miscellaneous

NOTE: The work you did in your Practice Activity (Secton F) can provide a basis for either of these activities.

THIS CONCLUDES THE MODULE ON SELECTING AND USING INSTRUCTIONAL RESOURCES TO ENHANCE INSTRUCTION.

IF YOU HAVE QUESTIONS OR COMMENTS, PLEASE DIRECT THEM TO YOUR MENTOR TEACHER OR EVALUATOR. THAT PERSON CAN DIRECT YOU TO OTHER RESOURCES IF NECESSARY.

H. References and Resources

Listed below are textbooks and/or web sites that will provide additional help with selecting instructional resources to enhance instruction.

Professional Books and Journals

Dale, Edgar. (1969). Audiovisual Methods in Teaching, 3rd edition. New York: Holt/Dryden Publications. (for more information on the cone of experience) .

Heinrich, R., Molenda, M., Russell, J. D., & Smaldino, S. E. (2002). Instructional Media and Technologies for Learning, 7th edition. Upper Saddle River, New Jersey: Merrill Prentice Hall.

Web sites:

Most subject fields have a professional organization that produces journals, books, monographs, videotapes, and other resource materials that relate to the curriculum and instruction of that discipline. Examples are listed below.

American Educational Research Association (AERA) - http://www.aera.net/

International Reading Association (IRA) - http://www.reading.org/

National Council of Teachers of English (NCTE) - http://www.ncte.org/

National Council for the Social Studies (NCSS) - http://www.ncss.org/

National Council of Teachers of Mathematics (NCTM) - http://www.nctm.org/

National Art Education Association - http://www.naea-reston.org/

National Science Teachers Association (NSTA) - http://www.nsta.org/

Phi Delta Kappa (PDK) - http://www.pdkintl.org/

Teachers of English to Speakers of Other Languages (TESOL) - http://www.tesol.org

Eisenhower National Clearinghouse for Science and Math - http://www.enc.org

Sample sites that respond to user questions:

Ask Jeeves - http://www.ask.com

Ask Jeeves for Kids - http://www.ajkids.com

Ask ERIC - http://askeric.org

Online encyclopedia - http://britannica.com

Encyclopedia Smithsonian - http://www.si.edu/resource/faq/start.htm

National Geographic Online - http://nationalgeographic.com

Math Forum: Ask Dr. Math - Elementary School Level - http://forum.Swarthmore.edu/dr.math/drmath.elem.html

Examples (a few from among a vast number) of search engines or searchable sites for educational purposes:

http://www.Google.com - a general search engine

http://www.yahooligans.com - a search engine of sites edited for students

http://www.ala.org/content/navigationmenu/greatALSC/great_web_sites_for_kids/Great_web_sites_for-Kids.htm - sites for students that have been edited by the American Library Association

http://sunsite.berkeley.edu/KidsClick! - A direct link to one of the sites available from the ALA site above

http://school.discovery.com/schrockguide - Kathy Schrock's Guide for Educators

http://www.thegateway.org/ -Gateway to Educational Materials, sponsored by the U.S. Department of Education with links to educational materials found on federal, state, university, non-profit and commercial Web sites

http://www.pbs.org/teachersource/

http://discoveryschool.com

http://ali.apple.com/ali/resources.shtml -The Apple Learning Interchange (by Apple computers) contains resources called applets in various content areas.

The network of government Regional Educational Laboratories provide information and sources to teachers for dealing with particular student groups and other educational issues:

Teaching diverse students - http://www.lab.brown.edu Northeast and Islands Regional Educational Laboratory at Brown University

Educational technology - http://www.ael.org Appalachia Educational Laboratory and http://www.ncrel.org North Central Regional Educational Laboratory

Expanded Learning Opportunities - http://www.serve.org SERVE

Family and Community Involvement - http://www.sedl.org Southwest Educational Development Laboratory

Standards-based Instructional Practice - http://www.mcrel.org/ Mid-Continent Research for Education and Learning

Assessment of Educational Achievement - http://www.wested.org WestEd

Re-engineering Schools - http://www.nwrel.org Northwest Regional Educational Laboratory

Curriculum and Instruction Related to Reading and Language Mastery - http://www.prel.org Pacific Resources for Education and Learning

Educational Leadership - http://www.temple.edu/lss Laboratory for Student Success

Some sites with information on evaluating resources on the Web:

www.virtualsalt.com/evalu8it.htm

www.mnstate.edu/library/instruct/evaluate.htm

www.nmu.edu/olsonlibrary/WEBEVAL.HTM

http://www.ericfacility.net/ericdigests/ed456864.html Eric Identifier ED456864 Mardis, Marcia, October 2001. Uncovering the Hidden Web, Part II: Resources for Your Classroom. ERIC Digest.

Web sites (cited in the module) that contain reviews of instructional materials:

http://libweb.lib.buffalo.edu/emro/search.html

http://www.evalutech.sreb.org