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ABSTRACT

This guide begins with a rationale for teaching applied academics courses. The next section contains a summary of the following important factors in the Secretary's Commission on Achieving Necessary Skills (SCANS) effort: characteristics of high performance workplaces, lessons offered by high performance schools, guidelines for restructured assessments, outlines of the foundations and competencies determined to be necessary by SCANS, differences between the conventional and SCANS classrooms, SCANS perspective on writing, and a chart of assignments that integrate the SCANS competencies into the core curriculum areas. The next section defines the role of the trainer/facilitator. It lists what facilitators and presenters/trainers do, skills facilitators and presenter/trainers need, and small group facilitation strategies. A section on learning theories/styles covers principles of learning, factors influencing learning, and a self-assessment of one's individual instructional style. The section on concepts of adult learning addresses characteristics of the adult learner, adult learning principles, and teaching adults. The next section describes several teaching/training strategies and methods. A section on workshop/inservice planning provides a checklist for teacher training and information on agendas, breaks, course materials, equipment, evaluations, packets, registration, handouts, facilities, and instruction. Other sections contain sample training agendas, sample lesson plans, "master" sheets for training workshops, and reference and suggested readings.  
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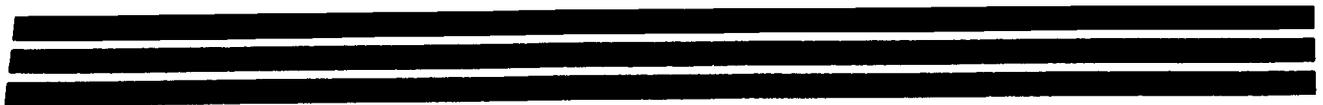
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## Applied Academics Trainer's Guide

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## Acknowledgments

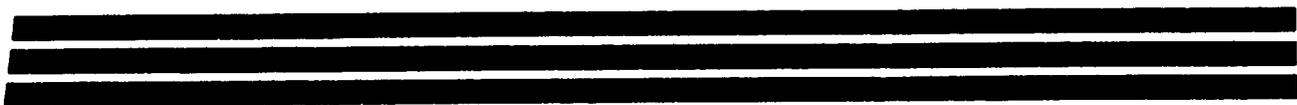
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# *Introduction*

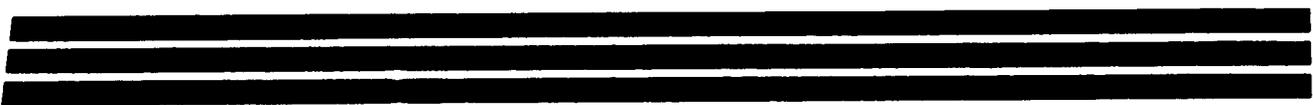


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*The purpose of a trainer is not primarily to counsel, interpret, instruct, or in any way lead people to believe that a trainer is the sole supplier of the answers to their questions. Instead, the trainer is a facilitator of learning and in this context he or she serves as a resource of knowledge and experience that others can draw on to solve problems and develop the potential of others . . .*



# *Rationale*



## **OUR CHANGING CULTURE**

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Futurists believe the following trends will have an impact on our culture and educational system.

### Future Trends:

- √ The world of Work will be characterized by a continued shift from an industrial workforce to an information and service workforce.
- √ Technology will play a major role in almost all segments of the workforce.
- √ Tomorrow's workers will need skills and attitudes different from those of today's workers.
- √ Technology will become even more powerful, convenient, and complex.
- √ The population that the educational system will serve will be quite different from today's population. It will be more ethnic, and both younger and older.
- √ The world will continue to become more globally interdependent.
- √ The American family will continue to be diverse. No single family type will represent the majority of Americans.
- √ Our society will demand an even more convenient lifestyle, expecting all institutions to deliver their services with ease and speed.
- √ The locus of control in education will continue to shift from the federal to the state level and from the central office to the building level. Decision making within school districts will be shared more with teachers.
- √ A shortage of qualified teachers and administrators will necessitate alternative approaches to training, recruiting, and certifying professional educators.
- √ Alternatives to public education will continue to grow in popularity and to gain public support.

(Benjamin, S. 1989)

## **RATIONALE FOR TEACHING APPLIED ACADEMICS COURSES**

The workplace of the past was one where people with limited academic skills could succeed. Jobs often required going through the motions of a regularized or repetitive process, often interacting with machines. In that kind of work environment, the inability to read and write could more easily be hidden or ignored. In today's job market, however, workers often need to interact with sophisticated, computerized machinery, as well as with people of varying positions and backgrounds. This requires good science, math, and communication skills.

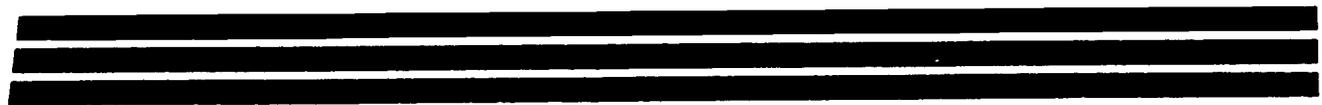
Traditional classroom instruction is not designed to teach discrete skills for application in the workplace. Instead, material is taught in isolation for the purpose of increasing a student's ability to follow directions or recall data for tests. For these reasons, students who master this type of information in school are not really prepared to apply it at work, and students who do not understand how information may be applied to work or life fail to master it at all.

In most public schools, concepts are presented sequentially, beginning with fundamental concepts, then moving on to more abstract and complex concepts. Likewise, traditional instruction is presented as a group activity with the instructor and the group practicing with samples copied from the textbook. This is usually accompanied by drill, homework, and a series of tests which measure students' achievement or proficiency in mental manipulation rather than in application or understanding. Unfortunately, many students—especially those who learn abstract concepts in concrete ways—do not understand the relevance of such mental exercises to the "real world."

The information in the following section will help you in sharing this idea for the need to teach information in a new way in order to prepare our students for the 21st Century.



# *School Reform Initiatives*





# *Essential Skills*



# SCANS

A Summary of Important Factors  
in the SCANS effort.

# THE SCANS REPORT

The goal of SCANS is a high performance economy; one characterized by high skills, high wages and full employment, where each and every person's resources are put to their best use.

## High Performance Work Place

Such high-performance workplaces have these characteristics:

- Flexible and decentralized production techniques.
- Employee empowerment, based on high levels of worker involvement in decision making, career paths and wage progression tied to skills.
- A strong emphasis on "excellence," on continuously improving work performance and on the kind of "quality management" that reduces error and rework, increases customer satisfaction and cuts costs.
- Continual training to upgrade skills and employees' ability to function effectively in a problem-oriented environment.
- Increasing integration of tasks through work teams and workers identifying with their products and services.

## High Performance Schools

The experience of those schools that are breaking new ground offers these lessons:

- Teaching should be offered in context. "Learning in order to know" should not be separated from "learning in order to do."
- Improving the match between what work requires and what students are taught requires changing how instruction is delivered and how students learn.
- High performance requires a new system of school administration and assessment.
- The entire community must be involved.

## RESTRUCTURED ASSESSMENTS

SCANS supports the emerging national consensus calling for a new, nationwide, voluntary assessment system. The Commission believes it should:

1. apply to both students and adults, to the classroom and the workplace;
2. incorporate new techniques of judging performance - not "tests" as traditionally understood, but assessment tied to learning goals; and
3. include locally-developed assessment tasks.

The assessment system should:

- Establish clear, high standards of student performance.
- Encourage students to meet the standards by creating a cumulative record of courses taken, projects completed and assessments of student mastery of both academic subjects and SCANS skills.
- Provide a basis for holding the education system and body politic accountable to meet the equity goal of providing *all* students with sufficient skills to earn a decent living.

## SCANS

The Secretary's Commission on Achieving Necessary Skills (SCANS) was appointed by the Secretary of Labor to determine the skills that our young people need to succeed in the world of work.

The report indicated that a high-performance workplace requires workers who have a solid foundation in basic literacy and computational skills, thinking skills necessary to put knowledge to work, and personal qualities which make workers dedicated and trustworthy. High performance workplaces also require competencies such as the following: managing resources, working amiably and productively with others acquiring and using information, mastering complex systems, and working with a variety of technologies.

### FOUNDATIONS

**BASIC SKILLS:** Reads, writes, performs arithmetic and mathematical operations, listens and speaks.

- A. Reading - locates, understands, and interprets written information in prose and in documents such as manuals, graphs, and schedules.
- B. Writing - communicates thoughts, ideas, information, and messages in writing; and creates documents such as letters, directions, manuals, reports, graphs, and flow charts.
- C. Arithmetic/Mathematics - performs basic computations and approaches practical problems by choosing appropriately from a variety of mathematical techniques.
- D. Listening - receives, attends to, interprets, and responds to verbal messages and other cues.
- E. Speaking - organizes ideas and communicates orally.

**THINKING SKILLS:** Thinks creatively, makes decisions, solves problems, visualizes, knows how to learn, and reasons.

- A. Creative Thinking - generates new ideas.
- B. Decision Making - specifies goals and constraints, generates alternatives, considers risks, and evaluates and chooses best alternative.
- C. Problem Solving - recognizes problems and devises and implements plan of action.
- D. Seeing Things in the Mind's Eye - organizes, and processes symbols, pictures,

graphs, object, and other information.

- E. Knowing how to learn - uses efficient learning techniques to acquire and apply new knowledge and skills.
- F. Reasoning - discovers a rule or principle underlying the relationship between two or more objects and applies it when solving a problem.

**PERSONAL QUALITIES:** Displays responsibility, self-esteem, socially, self-management, and integrity and honest.

- A. Responsibility - exerts a high level of effort and perseveres towards goal attainment.
- B. Sociability - demonstrates understanding, friendliness, adaptability, empathy, and politeness in group settings.
- C. Self-Management - assesses self accurately, sets personal goals, monitors progress, and exhibits self-control.
- D. Integrity/Honesty - chooses ethical courses of action.

### COMPETENCIES

- I. **Resources:** Identifies, organizes, plans, and allocates resources.
  - A. Time - Selects goal-relevant activities, ranks them, allocates time, and prepares and follows schedules.
  - B. Money - Uses or prepares budgets, makes forecasts, keeps records, and makes adjustments to meet objectives.
  - C. Materials and Facilities - Acquires, stores, allocates, and uses materials or space efficiently.
  - D. Human Resources - Assesses skills and distributes work accordingly, evaluates, performance and provides feedback.
- II. **Interpersonal:** Works with others.
  - A. Participates as member of a Team - contributes to group effort.
  - B. Teaches Others New Skills
  - C. Serves Clients/Customers - works to satisfy customers' expectations.
  - D. Exercises Leadership - communicates ideas to justify position, persuades and convinces others, responsibility challenges existing procedures and policies.
  - E. Negotiates - works toward agreements involving exchange of resources, resolves divergent interests.
  - F. Works with Diversity - works well with men and women from diverse backgrounds.

III. Information: Acquires and uses information.

- A. Acquires and Evaluates Information.
- B. Organizes and Maintains Information.
- C. Interprets and Communication Information.
- D. Uses Computers to Process Information.

IV. Systems: Understands complex inter-relationships.

- A. Understands Systems - knows how social, organizational, and technological systems work and operates effectively with them.
- B. Monitors and Corrects Performance - distinguishes trends, predicts impacts on system operations, diagnoses deviations in systems' performance and corrects malfunctions.
- C. Improves or Designs Systems - suggests modifications to existing systems and develops new or alternative systems to improve performance.

V. Technology: Works with a variety of technologies.

- A. Selects Technology - chooses procedures, tools or equipment including computers and related technologies.
- B. Applies Technology to Task - Understands overall intent and proper procedures for setup and operation of equipment.
- C. Maintains and Troubleshoots Equipment - Prevents, identifies, or solves problems with equipment, including computers and other technologies.

## The Conventional Classroom and The SCANS Classroom

From the Conventional Classroom	To the SCANS Classroom
Teacher knows answer.	More than one solution may be viable and teacher may not have it in advance.
Students routinely work alone.	Students routinely work with teachers, peers, and community members.
Teacher plans all activities.	Students and teachers plan/negotiate activities.
Teacher decides method of assessments.	Students routinely assess themselves.
Information is organized, evaluated, interpreted, and communicated to students by teacher.	Information is acquired, evaluated, organized, interpreted, and communicated by students to appropriate audiences.
Organization system of the classroom is simple: one teacher teaches 30 students.	Organizing systems are complex: teacher and students agree on organization and reach out beyond school for additional information.
Reading, writing, and math are treated as separate disciplines; listening and speaking often are missing from curriculum.	Knowledge needed for problem solving is integrated; listening and speaking are fundamental parts of learning.
Thinking is usually theoretical and "academic."	Thinking involves problem solving, reasoning, and decision making.
Students are expected to conform to teacher's behavioral expectations; integrity and honesty are monitored by teacher; student self-esteem is often poor.	Students are expected to be responsible, sociable, self-managing, and resourceful; integrity and honesty are monitored within the social context of the classroom; students' self-esteem is high because they are in charge of their own learning.

## SCANS

<b>Writing: The SCANS Perspective</b>	
What Today's Schools Teach	What the Workplace Requires
<b>Purposes for Writing</b>	
<ul style="list-style-type: none"> <li>• Central purpose is to display mastery of knowledge, skills, and format.</li> </ul>	<ul style="list-style-type: none"> <li>• Range of purposes (instrumental): to inform, persuade, clarify (or obscure), soften the blow, explain how to do something, tell others to do something, make a recommendation, sell.</li> </ul>
<b>Types of Writing Routinely Generated</b>	
<ul style="list-style-type: none"> <li>• Essays, book reports, poetry, stories, research papers, letters.</li> </ul>	<ul style="list-style-type: none"> <li>• Reports, brochures, letters, memos, proposals, surveys, ad copy, instructions, planning documents, messages, specifications, recommendations, logs, legal documents/ contracts, news releases, minutes, personnel evaluations.</li> </ul>
<b>Audience</b>	
<ul style="list-style-type: none"> <li>• Single audience: the teacher</li> </ul>	<ul style="list-style-type: none"> <li>• A range of audiences, including people differing in needs, motivations, uses for the information, and knowledge of the topic, e.g., supervisors, clients, co-workers, subordinates, the general public.</li> </ul>
<b>Work Conditions</b>	
<ul style="list-style-type: none"> <li>• Deadlines and distractions controlled by the teacher.</li> </ul>	<ul style="list-style-type: none"> <li>• Deadlines and distractions often unavoidable.</li> </ul>
<b>Content</b>	
<ul style="list-style-type: none"> <li>• Teacher assigns topics.</li> <li>• Text reveals everything discovered.</li> </ul>	<ul style="list-style-type: none"> <li>• Ill-defined problems are worked through.</li> <li>• Text tells what the reader needs to know.</li> </ul>
<b>Logic</b>	
<ul style="list-style-type: none"> <li>• Theoretical; "academic."</li> </ul>	<ul style="list-style-type: none"> <li>• Problem-solving, pragmatic, goal-oriented.</li> </ul>
<b>Correctness</b>	
<ul style="list-style-type: none"> <li>• Usage, handwriting, spelling, and punctuation are a focus for evaluation, accounting for 50 to 100 percent of the document's value.</li> </ul>	<ul style="list-style-type: none"> <li>• Same factors are a given, not a focus for evaluation.</li> </ul>

Source: Fort Worth Public Schools

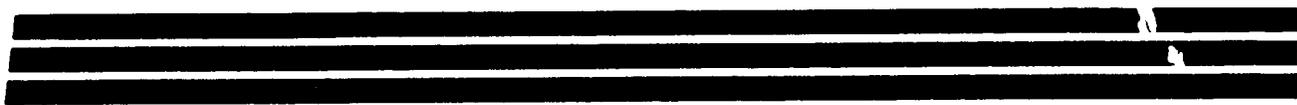
Assignments that Integrate the SCANS Competencies Into the Core Curriculum Area

SCH/Train-D.QF3

CURRICULUM AREA					
Competency	English/Writing	Mathematics	Science	Social Studies/Geography	History
<b>Resources</b>	Write a proposal for an after-school career lecture series that schedules speakers, coordinate audio-visual aids, and estimates costs.	Develop a monthly family budget, taking into account expenses and revenues, and--using information from the budget plan--schedule a vacation trip that stays within the resources available.	Plan the material and time requirements for a chemistry experiment, to be performed over a two-day period, that demonstrates a natural growth process in terms of resource needs.	Design a chart of resource needs for a community of African Zulus.  Analyze the reasons why three major cities grew to their current size.	Study the Vietnam War, researching and making an oral presentation on the timing and logistics of transport of materials and troops to Vietnam and on the impact of the war on the Federal budget.
<b>Interpersonal Skills</b>	Discuss the pros and cons of the argument that Shakespeare's <i>Merchant of Venice</i> is a racist play and should be banned from the school curriculum.	Present the results of a survey to the class, and justify the use of specific statistics to analyze and represent the data.	Work in a group to design an experiment to analyze the lead content in the school's water. Teach the results to an elementary school class.	In front of a peer panel, debate whether to withdraw U.S. military support from Japan.  Simulate urban planning exercise for Paris.	Study America's Constitution and roleplay negotiation of the wording of the free States/slave States clause by different signers.
<b>Information</b>	Identify and abstract passages from a novel to support an assertion about the values of a key character.	Design and carry out a survey, analyzing data in a spreadsheet program using algebraic formulas. Develop table and graphic display to communicate results.	In an entrepreneurship project, present statistical data on a high-tech company's production/sales. Use computer to develop statistical charts.	Using numerical data and charts, develop and present conclusions about the effects of economic conditions on the quality of life in several countries.	Research and present papers on effect of Industrial Revolution on class structure in Britain, citing data sources used in drawing conclusions.
<b>Systems</b>	Develop a computer model that analyzes the motivation of Shakespeare's <i>Hamlet</i> . Plot the events that increase or decrease Hamlet's motivation to avenge the death of his father by killing Claudius.	Develop a system to monitor and correct the heating/cooling process in a computer laboratory, using principles of statistical process control.	Build a model of human population growth that includes the impact of the amount of food available on birth and death rates, etc. Do the same for a growth model for insects.	Analyze the accumulation of capital in industrialized nations in systems terms (as a reinforcing process with stocks and flows).	Develop a model of the social forces that led to the American Revolution. Then explore the fit between that model and other revolutions.
<b>Technology</b>	Write an article showing the relationship between technology and the environment. Use word processing to write and edit papers after receiving teacher feedback.	Read manuals for several data-processing programs and write a memo recommending the best programs to handle a series of mathematical situations.	Calibrate a scale to weigh accurate portions of chemicals for an experiment. Trace the development of this technology from earliest uses to today.	Research and report on the development and functions of the seismograph and its role in earthquake prediction and detection.	Analyze the effects of wars on technological development. Use computer graphics to plot the relationship of the country's economic growth to periods of peace and war.



*Role of  
Trainer/Facilitator*



## Facilitator

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- The facilitator is a neutral, non-evaluative, non-judgmental process manager.
- The facilitator is not a chairman in the traditional mode, it is helping the group focus its energy.
- The facilitator does not add his own ideas or comments on the content - makes process comments only - in terms of helping the group break fixation, in offering other problem solving strategies.
- The function of the facilitator is very pragmatic - to help the group solve problems.
- The facilitator respects and defends all members and ideas from attack.
- Keep group focused on the task.
- It's not your responsibility to "save" the group

### Suggestions

- Constantly check with the group
- Be positive, compliment the group
- Turn questions back to the group.
- Don't talk too much.
- Take care of everyone.
- Refer back to group members.
- You will make mistakes - it's OK
- Be an energizer.
- Define your role at the start of a meeting
- Ask group to help you do your job.

## **What A Facilitator Does**

Directs, guides  
Listens, watches (words, body language, feel of...)  
Communicates  
Helps by making things easier  
Intercedes  
Organizes  
Intervenes  
Recognizes individual participation (encourage; not allow domination)  
Doesn't get involved; stays neutral  
Paraphrases  
Uses eye contact... proper body language  
Gatekeeps (keeps turns - eliminates hoggers)  
Is centered  
Stays unemotional  
Paces the meeting  
Clearly defines objectives  
Includes all Participants  
Summarizes  
Validates all participants' contributions

## **Skills a Facilitator Needs**

Listen skills  
Keep objectivity  
Flexibility  
Analyze needs of audience, know how to meet, move them in that direction  
Wide repertoire of skills/strategies  
Clear handwriting  
Spelling  
Neutrality  
Know how to keep a group moving  
Set adult standards/norms  
Arrange the room  
Ability to diagnose needs of group  
Ability to see "the big picture"  
Time... to plan, to focus  
Ability to Interrupt... politely  
Ability to accurately relate what's said to him/her  
Think on his/her your feet  
Diverse experiences  
To be a generalist  
Open to new ideas  
Able to let things go  
To be comfortable with disorder

## **What A Presenter/Trainer Does**

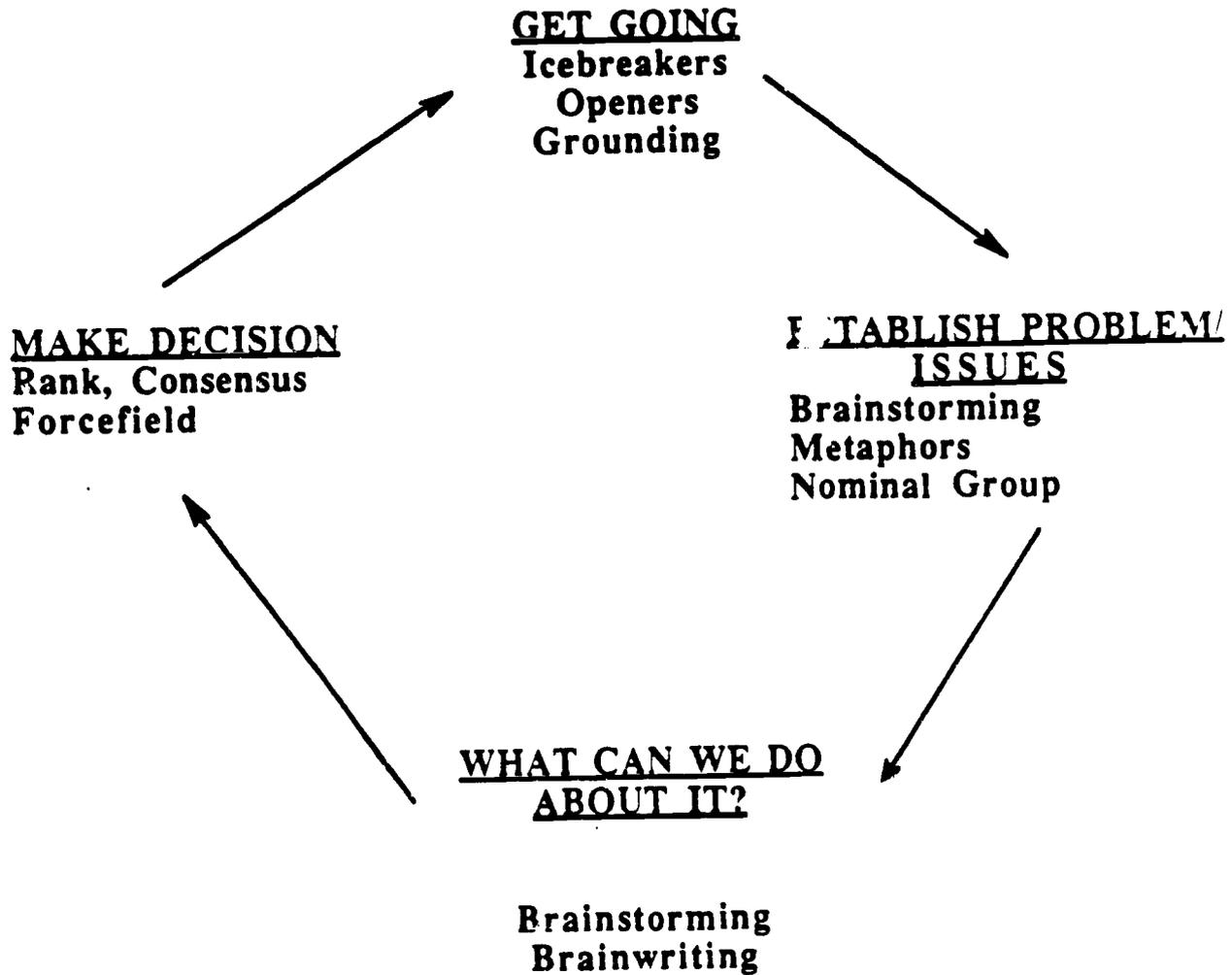
Controls/captivates "energizes"/motivates  
Provides info/facts/content  
Assesses needs of group before provides materials  
Makes info relative to group  
Gathers info  
Orchestrates, "conducts" harmonious collaboration  
Plans  
Models  
Makes decisions  
Assesses product  
Checks for understanding  
Sets standards (writes rubrics and communicates expectations)  
Assures application  
Identified learning (obj.) clearly  
Demonstrates expertise in both process content

## **Skills a Presenter/Trainer Needs**

Content Knowledge  
Process knowledge  
Ability to implement a variety of strategies  
Ability to adjust to the audience  
Organizational skills  
"Feel" for group  
Flexibility  
Experience/credibility  
Personability/presenting oneself professionally  
Be prepared  
Know how to "snuff-em-out" dehumanizing  
Speaking and communication skills  
Energy  
Take care of self/be aware of self

# FACILITATION TOOLS

## Small Group Facilitation Strategies



## GET GOING

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### What's the Rationale for Icebreakers, Openers, Grounding?

- They allow participants to become acquainted with one another in a more meaningful way; that is, glimpses into attitudes, values, aspects of personality, concerns, etc., become possible.
- A start to be made on overcoming possible feelings of loneliness, and icebreakers certainly help to involve shy people.
- They help to relax the group and make people more spontaneous. By engaging in meaningful, often fun-type activities, participants' anxieties and tensions can be reduced.
- They set a climate, tone, and a pace for the program, particularly if it is to be a participative one.
- They help to build momentum for the phase of the program.
- They achieve the "instant involvement" of everyone.
- They help build group identity and group cohesiveness.
- They assist in developing trust among participants and with the trainer as well.
- They help participants learn about the resources of the group.
- They help energize the group. To the extent that participants are permitted to engage early on in activities that are marked by movement, standing up, meaningful sharing, fun, novelty, and the like, they are put into an alert, stimulated, and motivating state.
- They help to develop the credibility of the trainer as a facilitator not a "leader" or a lecturer.
- They give the trainer a feel for the group - are the members open to new experiences, fun-loving, non-defensive vs. cautious, super-sober, rigid. These data can provide indicators as to how active and "free-wheeling" your later exercises and games should be.
- Finally, icebreakers can help to reduce the anxieties of the trainer, who is a human being too! Since the interaction puts the participants more at ease, in circular and contagious ways it reaches the trainer as well.

### Examples For "Get Going" or Icebreakers

1. Three truths and a lie.
2. Significant/insignificant item in your wallet
3. What's become clear to me since we last met ...
4. What are my expectations? How do I feel ...
5. Good examples of teaching (content area) you noticed in past two weeks
6. Describe your favorite aspect of this meeting (before meeting begins) to the person next to you. You are responsible for bringing that quality.

## What Can We Do About It?

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### Brainstorming

Brainstorming is a free-wheeling session in which individuals offer ideas. Brainstorming is a powerful tool to use when looking for solutions to problems, innovations, or any other time you want to generate a lot of ideas. Everyone has the opportunity to participate and contribute, thus, everyone feels included and involved.

The procedures for brainstorming is:

1. Set and adhere to a specific amount of time to brainstorm--usually about 5 minutes.
2. Write all ideas on the blackboard or on a large piece of chart paper. Every idea is written, no matter how "strange" it may seem. **ACCEPT ALL COMERS!**
3. Absolutely no evaluation or judgment of ideas is permitted during the idea-generating period - no smiles or laughing, no "greats" or "yuks" or any other form of approval or rejection.
4. When the time is up and all the ideas are listed, they are read aloud with necessary clarification given by the originator of the idea.
5. Ideas can now be evaluated using a variety of decision-making tools.

**REMEMBER!** The objective of brainstorming is to generate as many ideas as possible.

## Establish Problem/Issues

### What Is The Situation?

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#### Brainstorming Procedures

**Brainstorming:** This is a free form process that taps into the creative potential of a group through association. Power of association is a two-way current. When a group member voices an idea, this invites other ideas by stimulating the associative power of all other members.

- List all ideas offered by group members.
- Do not evaluate or judge ideas at this time.
- Do not discuss ideas except perhaps briefly to clarify understanding.
- Welcome "blue sky" ideas. It is always easier to eliminate than to accumulate
- Repetition is okay. Don't waste time sorting out duplication.
- Encourage quantity. The more ideas, the greater the likelihood of a useful one.
- Don't be too anxious to close out this phase. When a plateau is reached, let things rest and then start again.

## MAKE DECISION

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### Force-Field

1. The leader identifies the status quo situation that is targeted for change or describes the current situation in contrast to the desired situation. The emphasis is on description of the status quo (the current situation). The recorder draws a vertical line down the middle of the flip chart to represent the status quo (see figure below)
2. The group members brainstorm all of the forces that they see as working "against" the desired change in the status quo, i.e., all those forces that are holding the status quo in its current position and are in resistance to any of the forces for desired change. These forces are listed on the right-hand side of the chart with arrows pointing from right to left toward the status quo line.

Status Quo			
Forces <u>For</u> Change		Forces <u>Resisting</u> Change	
Force A	→ 25	←	Force 1
Force B	→ 35	←	Force 2
Force C	→ 25	←	Force 3
Force D	→ 10	←	Force 4
Force E	→ 5	←	Force 5
		←	Force 6

**Illustration of Force-Field Strategy**

3. When all the forces resisting change in the status quo have been listed, the group weighs each force in terms of its importance or strength by spreading one hundred points among the forces that have been listed.
4. The group lists all of the forces moving the status quo "toward" the desired change. These forces are listed on the left-hand side of the chart with arrows pointing toward the status-quo line.
5. When all of the forces moving toward change in the status quo have been listed, the group weighs each force in terms of its importance or strength by spreading one hundred points among the forces that have been listed.

**NOTE:** Steps 2 through 5 describe the field of forces that maintain the status quo. The group's strategic plan should focus on "diminishing resisting forces." When resistance has been diminished, the current forces for change will be sufficient to move from the status quo toward the objective. (Experience indicates that this is the high-payoff strategy - the one that gets the greatest results with the least expenditure of resources).

For each resisting force, the group lists the answers to the following questions (it is important to be as specific as possible so that the effect of this analysis makes the "impossible forces" personal, tangible, and more accessible.)

**What are the names of the people involved in this force of resistance?**

**What is the history of this resistance? How long has it been effective?**

**Where is this resistant force located? Does it have a specific geographical location?**

**In what ways or actions does this resistant force express itself?**

**What resources (money, equipment, materials, operational space, information, and distribution channels) are available to support this resistant force?**

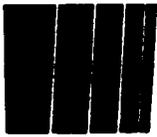
The group looks for specific actions that will reduce the resources listed in the previous step. For instance, members may make comments such as "I have a friend who I think can change Max White's mind," "I know a way to quietly identify these 'ring leaders,' and I think this will cause most people to separate themselves from their cause." "I know one of their chief suppliers, and when he knows how the stuff is being used, I think he'll quit supplying them," or "Judy, Andrew, and Martha, who are in support of change, work in that same area; let's give them some exposure so that people will know that these new resisters don't represent the whole area."

**OPTIONAL** The group may want to consider what it can do to increase the intensity of forces working for change. Experience indicates, however, that without deliberate efforts to diminish resistance, the more one pushes forces for change, the more likely one is to stimulate natural increases in resistance. This strategy is also a comparatively high-investment one...it usually requires much more time, energy, and other resources than simply trying to reduce existing resistance to the status quo.

## Suggestions for Overcoming Fear of Speaking Before a Group

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1. Know the material well (be an expert).
2. Practice your presentation (pilot-test and possibly videotape yourself).
3. Use involvement techniques (participation).
4. Learn participants' names and use them.
5. Establish your credibility early.
6. Use eye contact to establish rapport.
7. Take a course in public speaking.
8. Exhibit your advance preparation (via handouts, etc.).
9. Anticipate potential problems (and prepare probable responses).
10. Check in advance the facilities and AV equipment.
11. Obtain information about the group in advance (through observation or questionnaire).
12. Convince yourself to relax (breathe deeply; meditate; talk to yourself).
13. Prepare an outline and follow it.
14. Manage your appearance (dress comfortably and appropriately).
15. Rest up so that you are physically and psychologically alert.
16. Use your own style (don't imitate someone else).
17. Use your own words (don't read).
18. Put yourself in your trainees' shoes (they're asking, "What's in it for me?").
19. Assume they are on your side (they aren't necessarily antagonistic or hostile).
20. Provide an overview of the presentation (state the end objectives).
21. Accept some fears as being good (energizing stress vs. destructive).
22. Introduce yourself to the group in advance (via a social context).
23. Identify your fears, categorize them as controllable or uncontrollable, and confront them.
24. Give special emphasis to the first five minutes (super-preparation).
25. Image yourself as a good speaker (self-fulfilling prophecy).
26. Practice responses to tough questions or situations.
27. Create an informal setting (sit on a table)



*Learning  
Theories/Styles*



## Learning Is:

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- Goal oriented
- Linking New Information to Prior Knowledge
- Influenced by Development
- Occurs in Phases
- Organizing Information

## What Learners Have in Common

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All adult learners have a similar information processing mechanism...the human sensory and nervous system.

Four key components of the human computing system that affect learning are:

The senses	they take in information from the environment: visual, auditory, touch, smell, etc.
Conscious thinking	consisting of what the learner is consciously processing at any given time.
Short term memory	an almost conscious, immediately accessible file of information for thinking.
Long term memory	where all the learner's knowledge and memory are stored.

## Principles of Learning

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NOTES:

- Congruence Principle
- Organization and Clarity
- Variety Principle: Different Learning Styles
- Active Processing Principle
- Experience-Based Learning Principle
- Higher Level Thinking Principle

## Factors Influencing Learning

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NOTES:

- Interest
- Intelligence
- Concentration
- Well-Being
- Memory
- Past Experience (Prior Learning)

## YOUR INDIVIDUAL INSTRUCTIONAL STYLE

Each of the statements in this self-assessment is followed by two blanks and four alternative statements. Select the alternative that you think is best and enter its letter (a, b, c, or d) in the first box. Then select the next best alternative and enter its letter in the second box.

In most of the items, all four alternatives could be considered to be correct (appropriate, relevant, etc.). However, this is a forced choice exercise, and you are to select only the best and the next best of the four. Read all four alternatives before making your two selections.

1. At the start of a demonstration that you are about to conduct, it's generally a very good idea to \_\_\_\_\_ and also a good idea to \_\_\_\_\_.
  - a. ask the class to hold questions until the end of the demonstration
  - b. tell them not to make notes because you'll give them a handout
  - c. invite them to stop you whenever they have questions
  - d. get feedback after each major point to assess their understanding
  
2. By giving tests from time to time, you can accomplish the main objective of \_\_\_\_\_ and the additional objective of \_\_\_\_\_.
  - a. seeing how well you covered the course material
  - b. making sure your course design is complete
  - c. identifying trainees who need individual help
  - d. enabling learners to see their strengths and weaknesses
  
3. Visual aids are a valuable tool in class. They are especially useful in helping you to \_\_\_\_\_ and are also good when you want to \_\_\_\_\_.
  - a. cover more material in limited class time
  - b. bring your subject matter to life for your learners
  - c. organize your material and your main teaching points
  - d. reach those trainees who learn better from an audiovisual approach
  
4. When you have a new group of trainees and are starting a course, it is most important that you begin by \_\_\_\_\_ and also by \_\_\_\_\_.
  - a. getting the trainees to introduce themselves and tell a little about themselves
  - b. giving the outline of what you will be covering
  - c. distributing a sheet with names and locations of trainees
  - d. explaining the rules for the course (absences, assignments, comfort breaks, phone calls, etc.)
  
5. When a trainee interrupts your lecture (presentation, etc.) with a question that will be dealt with in the next class meeting, it's generally best to \_\_\_\_\_ and next best to \_\_\_\_\_.
  - a. ignore it
  - b. answer it briefly at the time it is brought up
  - c. explain that you'll take it up at the next meeting
  - d. ask if the other participants would like to have the answers now or tomorrow
  
6. When you are evaluating instructional materials that you are thinking about buying, it is most important that you \_\_\_\_\_ and also that you \_\_\_\_\_.
  - a. get the reaction of at least several students
  - b. check out the content for completeness, clarity, accuracy, and overall quality
  - c. get materials that provide "hands-on" learning for the trainees
  - d. look for methods and media that impart information efficiently
  
7. Learning takes place best when the instructor \_\_\_\_\_ and \_\_\_\_\_.
  - a. is well organized, has a detailed course outline (lesson plan, etc.)
  - b. gives the objectives before the lesson and summarizes at the end of it
  - c. gets a high degree of participation and interaction
  - d. functions as a catalyst and an arranger of experiences

8. In setting up a room for a training session, it is important to arrange the seating in such a way that \_\_\_\_\_ and \_\_\_\_\_.
- each student can see every other student
  - each student has an ample writing surface to make notes and spread work papers
  - students all face the instructor
  - the group can readily interact and break in sub-groups
9. From time to time it's a good idea to break the class into sub-groups of 3-4 persons each and give them exercises to work on. This enables you to \_\_\_\_\_ and \_\_\_\_\_.
- check on your lesson plan (notes, guidelines) to make sure you haven't forgotten anything
  - get things organized for the next part of the lesson
  - circulate and listen in on each group so as to get more feedback
  - see how certain individuals are responding to the lesson
10. When a trainee asks a question about something that was covered at an earlier session when he/she was absent, the best thing to do is \_\_\_\_, but you could also \_\_\_\_\_.
- call on another participant to answer and to summarize what \_\_\_\_ is covered
  - ask the trainee to see you after class, and continue with today's lesson
  - tell the trainee to see someone else after class, since it was covered earlier
  - take the time to answer the question
11. If you think back to all the instructors you have ever had (at work), you will realize that the ones you most respected are the ones who were best at \_\_\_\_ and also at \_\_\_\_\_.
- knowing their subject backwards and forwards
  - being a "facilitator" rather than a lecturer
  - knowing the students and their needs
  - keeping on track and maintaining good control
12. Training might be defined as the process of \_\_\_\_\_ and the next best defined as \_\_\_\_\_.
- selecting and imparting knowledge, skills, and attitudes
  - helping trainees to improve their performance
  - arranging experiences that lead learners to changed behavior
  - using appropriate methods, media, and instructional strategies to convey information relevant to course objectives
13. If you had to design a workshop to teach instructional skills to a group of new trainers, the most important topic to include is \_\_\_\_\_ and the next most important is \_\_\_\_\_.
- the psychology of how people learn
  - platform skills in making effective presentations
  - group dynamics and discussion leadership skills
  - selection of methods, media, and audiovisual aids
14. Many supervisory training programs make use of role playing, case method, simulations, and management games. In designing or selecting such a program, it is important to remember that \_\_\_\_\_ . It is also important to remember that \_\_\_\_\_.
- such methods can waste valuable class time and make it hard for the instructor to keep to the schedule and cover the material
  - people need ample opportunity to practice and apply new supervisory skills and techniques in the supportive environment of the classroom
  - a lot of supervisors will get more out of a handout listing the do's and don'ts of interviewing than they will out of enacting a role play on it
  - these forms of experiential learning enable both the participant and the instructor to deal with individual needs

15. After showing a training film, it is usually a good idea for the instructor to \_\_\_\_\_. It is also desirable to \_\_\_\_.
- summarize the main points and major message
  - ask the group what they learned from it
  - give out a handout to help them remember the main points
  - break the group into smaller discussion groups and give them a few questions that will help them to summarize the message
16. In teaching adults, it is more important to remember that \_\_\_\_\_, but that \_\_\_\_\_ is also important.
- they are time-conscious and want the instructor to stick to schedule
  - they want an instructor who knows the subject thoroughly
  - they can learn a lot from one another and need opportunities
  - they have their own needs and agendas which may conflict with the instructor's but which must be recognized
17. The learner's retention of what is taught in class is most influenced by \_\_\_\_\_, but \_\_\_\_\_ is also important.
- the degree to which learners must work in class on ways to adapt the new learning to their own situation
  - the instructor's ability to repeat major learning points, using different wording and illustrations each time
  - the instructor's ability to ask questions and provide exercises that lead learners to discover and apply the things they are being taught
  - the appearance and organization of the learning material: graphics, visuals, examples, illustrations, frequent references
18. It is important that an instructor have credibility and command the respect of the trainees. These are most influenced by the instructor's \_\_\_\_\_ but \_\_\_\_\_ is also important.
- experience and knowledge of the subject
  - ability to understand the student's needs and perspective
  - organization of the learning material, handouts, visuals, etc.
  - ability to get learner involvement and hands-on response
19. Suppose you are running a class in supervisory training, and that your participants have gotten off the track. Instead of discussing the subject, motivation, they are talking about the lack of parking space for employees. Your best move is to \_\_\_\_\_, but you might also want to \_\_\_\_\_.
- remind them that they've gotten off the track and regain control
  - ask if there is any action they might want to take as a group to deal with the parking problem
  - show them how the parking problem relates to motivation
  - see if they can come back to the subject without your intervention
20. In giving tests, remember that the best tests are those that \_\_\_\_\_; tests that \_\_\_\_\_ are also good.
- require little effort to score ("objective" rather than essay-type)
  - help each student to synthesize the learning and to diagnose deficiencies
  - lead the learner to apply the subject matter in new situations
  - measure retention and comprehension of facts, skills, and concepts

## INSTRUCTIONS FOR SCORING

Beside the number 1 at the right, find the letter that you entered in your first box on questions 1. Place a 3 on top of that letter at the right. (Make a thick, bold 3 so that it covers the letter under it.)

Now find the letter you entered in your second box (that is, your "second choice" on number 1). Place a 2 on top of that letter at the right. You now have a 3 and a 2 entered on top of two of the four letters that appear beside number 1 on the table at the right.

Do the same for the remaining 19 questions.

Then add up all the 3's and 2's that appear in the left column titled "Learner-Centered Instruction." Enter this total in the box at the bottom of the column.

Now do the same for the right column titled "Information-Centered Instruction." Add all the 3's and 2's in this column, and enter total in the box at the bottom of the column.

If your addition is correct, the sum of your two boxed scores is 100. (If you are within 3 points of 100, don't bother recounting to find the error.)

### INTERPRETATION

According to the Managerial Grid, developed by Blake and Mouton, managers must respond to two aspects of the work environment: the needs of employees, customers, etc. (people-oriented needs), and the needs of the organization to maintain high productivity and get the work done (task-oriented needs). The "ideal" manager shows high concerns for both sets of needs. However, most managers are by nature higher on one of these two concerns, to the detriment of the other.

So it is with instructors who must balance their learner's needs with their own need to impart information and cover all the points in the lesson. The effective instructor is able to balance these two needs and to meet both. Moreover, our instructional style will vary as a function of the subject we are teaching, the time frame (pressure), and the nature of our learners and their needs. For example, an instructor teaching army recruits on a drill field might have a higher score on the Information-Centered side. In contrast, most instructors who teach management development programs will have a higher Learner-Centered Score.

Learner-Centered Instruct.	Information Centered Instruct.
1. c d	a b
2. c d	a b
3. b d	a c
4. a c	b d
5. b d	a c
6. a c	b d
7. c d	a b
8. a d	b c
9. c d	a b
10. a d	b c
11. b c	a d
12. b c	a d
13. b c	b d
14. c d	a b
15. b d	a c
16. b d	a c
17. a c	b d
18. b d	a c
19. b d	a c
20. b c	a d
<b>TOTALS</b>	



*Concepts of  
Adult  
Learning*



## **CHARACTERISTICS OF THE ADULT LEARNER**

1. ADULT LEARNER CAN BE HELD RESPONSIBLE FOR THEIR OWN LEARNING.
2. TRAINER'S ATTITUDE CRUCIAL TO SUCCESS OF THE LEARNING ENVIRONMENT.
3. PHYSICAL ENVIRONMENT KEY TO SUCCESS .
4. ADULT LEARNERS BRING RICH & VARIED EXPERIENCES TO CLASS.
5. THE ADULT LEARNER LEARNS WELL FROM DIALOGUE WITH RESPECTED PEERS.
6. FOR THE ADULT LEARNER KNOWLEDGE CAN BE INTEGRATED BY MEANS OF:  
PARTICIPATION  
APPLICATION  
ACTION PLANS  
FOLLOW UP TRAINING

## ADULT LEARNING PRINCIPLES

Adult learning principles are important for you to learn and use as a trainer or training facilitator. If you use adult learning principles both to develop training designs and to facilitate your groups, you will increase the likelihood that your adult group members will learn, be committed to the group's goals, and generate more solutions to problems.

### Differences Between Children and Adults as Learners

Children	Adults
Rely on others to decide what is important to be learned	Decide for themselves what is important to be learned
Accept the information being presented at face value	Need to validate the information based on their beliefs and experiences
Expect that what they are learning will be useful in their long-term future	Expect that what they are learning is immediately useful
Have little or no experience upon which to draw — are relatively "clean slates"	Have much past experience upon which to draw — may have fixed viewpoints
Have little ability to serve as a knowledgeable resource to teacher or fellow classmates	Have significant ability to serve as a knowledgeable resource to the facilitator and group members
Are content centered	Are problem centered
Are less actively involved	Actively participate
Learn in an authority-oriented environment	Function best in a collaborative environment
Planning is teacher's responsibility	Share in planning

## TEACHING ADULTS

### QUESTION:

What can I do to establish a positive learner attitude for this learning experience?

### STRATEGIES:

- Share something of value with your adult learners
- Reflect the language, perspectives and attitudes of your adult learners
- Give your rationale for assignments or training requirements
- Promote the learner's personal control of the context of learning
- Make learning goals as clear as possible
- Make the criteria of evaluation as clear as possible
- Use models similar to the learners to demonstrate expected learning
- Announce the expected amount of time needed for study and practice for successful learning

### QUESTION:

How do I best meet the needs of the learners through this learning sequence?

### STRATEGIES:

- Use needs assessment techniques to discover and emphasize the needs of learners
- Create a learning environment that is organized and friendly
- Introduce the unfamiliar through the familiar
- Challenge the learners
- Provide opportunities for self-directed learning

**QUESTION:**

What about this learning sequence will stimulate the learners?

**STRATEGIES:**

- Provide frequent response opportunities to all learners
- Introduce, connect, and end learning activities clearly
- Relate learning to adult interests
- Selectively use examples, analogies, metaphors and stories
- Clearly state the advantages that will result from the learning activity
- Make learner reaction and active participation an essential part of the learning process

**QUESTION:**

- How does this learning sequence increase learner feelings of competence?

**STRATEGIES:**

- Provide consistent feedback regarding mastery and progress in learning
- When necessary, effectively praise and constructively criticize
- Use formative evaluation procedures to measure and communicate learner progress and mastery

## ADULT LEARNING STYLES

Typical adult learning styles can be categorized into these four groups.

### IDEALISTIC

Builder, thinker  
Dislikes structured training programs  
Likes self-paced training  
Likes group discussion, goal setting  
Likes discovering for themselves

### REALISTIC

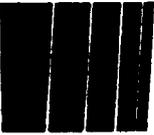
Likes fast-paced programs  
Feels team-building exercises are time consuming  
Dislikes long hours in problem solving or group activities  
Highly motivated to do what they are trained to do

### PRAGMATIC

Feels the situations in which they work are unique  
Assumes relevant learning only takes place in the work environment  
Likes hands-on experiences  
Likes custom designed development programs

### EXISTENTIALISTIC

High regard for their own and others' strengths and abilities  
Feels there are many effective ways to produce the same results  
Demands a voice in decisions that affect them  
Likes training sessions that stress human relations



*Teaching/Training  
Strategies  
and  
Methods*



# Teaching for Transfer

## Awareness

- Increase learners awareness and understanding of the skills that are “transferable.”
- Providing instruction and practice in various learning techniques - enhances ability to learn different skills.
- Identifying and building upon prior knowledge and experience. Will stimulate learning and transfers.
- Teaching learners to evaluate their own performance and establish their own standards (stimulates improvement and change).

## Sequencing

- Transfer occurs more readily when learning tasks are arranged according to their similarity.
- Avoid unnecessary repetition.
- Emphasize and teach the transfer skills such as problem solving and communication skills.

## Practice

- Only the knowledge and skills that are mastered and remembered can be transferred.
- Skills should be developed and then practiced under new and varying conditions.
- Provide prompting that will lead to correct reasoning and transfer approaches.

## Reinforcement

- To optimize positive transfer, reinforce correct applications of skills and knowledge.
- Provide adequate feedback by rewarding successful attempts and correcting inappropriate ones.

## Cues

- An important aspect of the ability to transfer skills successfully involves the ability to recognize the proper “cues.”
- “Cue recognition” is associating what is common in a new task or situation and in prior learning or experience.

## Choose an Effective Training Methodology

There are a number of different training methodologies that instructors can choose from in designing a program or lesson. Among the most useful are task force exercises, case studies, simulations and games, role playing, group discussion, individual exercises, presentations and lectures, behavior modeling, and written exercises.

### Task Force Exercise

A **task force exercise** takes place when a group of three to eight trainees work together on a problem and present their solution to the class. The task force exercise is used when the learning objective is to:

- Encourage group interaction in problem-solving situations,
- Acknowledge and use the experience and expertise of the learners,
- Practical analytical skills,
- Test trainees' understanding and application of a concept or process, and
- Generate a plan to be used back on the job.

To be effective, task force exercises:

- Require the meaningful application of the process or concept being learned,
- Must be realistic and related to the learners' work situations,
- Must be challenging but not too complex for the time allowed, and
- Must provide enough information for the learners to do the task well.

### Case Studies

A **case study** is a description of a situation in writing or on audio or videotape that the trainees study and discuss under the guidance of the instructor. Discussion of a case study is used when the objective is to:

- Encourage learners to participate,
- Teach analytical skills rather than the right answer,
- Simulate a real situation in a limited amount of time, or
- Demonstrate how the program content is related to the learner's actual situation

To be effective, the case discussion must be constructed so that

- The problem is realistic,
- The answer or decision is not obvious, and
- The case study offers enough information for a spirited discussion.

### Simulations and Games

A **simulation** is an exercise that represents a real job situation and allows the learners to practice skills and application of knowledge within a limited time frame and in a risk-free environment (the classroom)

Games have the same intent—to provide nonthreatening opportunities for the application of learning—but the situation is contrived and unrelated to the learners' world. Simulations and games are used to:

- Encourage participation,
- Give learners realistic, job-related experience,
- Elicit the learners' natural tendencies and provide feedback, and
- Test the learners' application of complex skills or knowledge.

To be effective, simulations and games must:

- Be realistic (simulations) or relevant (games),
- Be clear and understandable but not so simple as to be boring,
- Not emphasize winning to the extent that the competition detracts from the learning,
- Encourage the behavior that is the objective of the lesson, and
- Allow for meaningful discussion of the experience.

### **Role Playing**

**Role playing** is an exercise in which learners simulate a real or hypothetical interactive situation. A discussion and analysis follow to determine what happened and why.

Role playing can be used to analyze the learners' customary ways of dealing with the situation, but more often it is used to allow the learners to apply newly learned procedures or skills. A role-playing exercise is used:

- When the objective is hard to understand through discussion and analysis,
- To allow participants to practice skills or procedures needed in the given situation,
- To build learners' confidence to handle the situation, and
- To give nonparticipating learners an opportunity to practice observational skills.

To be effective, the role-playing exercise:

- Must be constructed so that the various roles are clearly defined yet allow the players some freedom to act and use the newly learned skills,
- Must put some pressure on the players to resolve the problem with which they are confronted, and
- Must be clearly structured so that players understand what they are to do, the process to use, the timing of various actions, and the end result.

Much of the learning occurs in the analysis phase. For that to work well, the observers must know what they are looking for. In fact, the points to be learned must have actually been demonstrated.

The success of the role-playing exercise depends upon careful preparation of the materials, effective orientation of the players, and feedback tied clearly to the objective of the lesson

## Group Discussions

A **group discussion** is a planned opportunity for participants to freely exchange ideas or opinions in a large group or in subgroups. Group discussion can be an effective training methodology when:

- The subject is of much interest,
- Members of the group are knowledgeable or hold differing ideas about the subject,
- The subject is rarely discussed, and
- The objective is to encourage group interaction in solving real problems or creating an action plan.

More than anything else, the success of group discussions depends on the leader's ability to:

- Make the purpose or subject clear,
- Keep the discussion on track,
- Prevent domination by eager learners and encourage participation by shy members, and
- Bring the discussion to a timely and satisfactory conclusion (by agreement or by understanding and acceptance of disagreement).



# *Workshop/Inservice Planning*



## **CHECKLIST FOR TEACHER-TRAINING**

As a Teacher-Trainer, you will want to be sure that you:

- 1) give an overview of the course design and content, and the philosophy on which it is based
- 2) discuss outcomes, competences, benefits, etc.
- 3) explain choices and options with a stand-alone course, infused materials, etc.
- 4) discuss learning styles and work through various different ways to teach to these different styles: cooperative learning, peer support, teams, cross-teaching with other disciplines, etc.
- 5) do a "walk-through" of sample units, covering each different element in detail (videos, instructional materials, exercises, activities, etc.)
- 6) cover enough units so that teachers have a good understanding of the methodology, the content, the activities, etc. (one way to do this is to divide the group into teams and have each team do a different exercise then present each exercise to the large group)
- 7) demonstrate or explain the learning activities, letting the new teachers experience the activities as students would
- 8) describe and review the instructional methodology and learning environment for each element so that participants will understand the "why" and the "how" of each activity (including cooperative learning, peer support groups, etc.)
- 9) demonstrate and explain all equipment used in the course, do exercises with the equipment, etc. (be sure each new teacher handles each piece of equipment)
- 10) discuss facilities, equipment, storage space, consumables, etc. and the accompanying costs, as well as vendors
- 11) provide an on-going opportunity for questions and answers throughout the teacher training sessions

# AGENDAS

## **Skeleton outline:**

"Bare bones"

Just the main headings, activities, or sessions

Used as guideline but not held to specifics  
(especially not held to time frame)

## **General outline:**

More information than skeleton

Still not moment by moment

## **Total or complete outline:**

Specific activity at specific time

Laid out from start to finish

## **Combination outlines:**

If holding training for more than one discipline at a time, may want skeleton or general outline for whole group and complete outline for the content-specific material.

**REMEMBER:** Be flexible. Be able to shift on site if necessity arises.

## **BREAKS**

Breaks are important!

**The breaks don't all have to be long. They can be just:**

A "seventh inning stretch"

An attention-getter

During a distraction (i.e. noise, etc.)

**Where will breaks be held?**

**If cost of break is included in the registration fee:**

Who is responsible?

What do you serve?

When do you have the break?

Who does clean-up?

What is the cost?

**If break is on their own:**

What is available?

Where?

What is the cost?

**REMEMBER:** The longer the workshop, the more variety needed.

**Things to consider:**

**AM:** Regular and decaffeinated coffee, tea, juice, water  
Besides the traditional donuts, maybe muffins and/or fruit

**PM:** Soft drinks, and alternatives like juices or sparkling water  
Cookies, fruit, cheese, nuts, pretzels

## **COURSE MATERIALS**

Teachers new to your applied academic area may not have Student Texts and Teacher's Guides.

### **Determine early-on with your sponsoring entity whether:**

- Teachers will have to obtain their own books
- Books will be provided as part of workshop
- You or the sponsor will order the materials

### **If they obtain their own books, do you want workshop participants to bring:**

- All Student Texts and Teacher's Guides
- Just Teacher's Guides
- A combination (which ones?)

### **If books are furnished at workshop site:**

- Will sponsor ship books home for participants? At whose cost?
- Are participants responsible for transporting them home?

(This is usually not a problem if everyone drives, but if some fly, it can cause concern and should be addressed in advance.)

## EQUIPMENT / TEACHING AIDS

Overhead projector

Slide projector

} Remember extra bulbs!

Screen

VCR

Monitor

Flip charts and markers

Easels / Stands

Dry board and markers

Chalk board, chalk, and erasers

Extension cord(s)

Masking tape

Stapler and staples

Scotch tape

Scissors

Pens and pencils

Scratch paper

### **Who is responsible for:**

General equipment/supplies?

Content-specific supplies?

Consumable supplies?

# EVALUATIONS

**There are numerous ways to do evaluations.**

**Several different types of evaluation forms include:**

- Open-ended
- Rating system
- Forced choice
- Combination

**What are you trying to learn from evaluations?**

- If the content meets the needs of the participants
- Rating presenter (you may want more feedback in early stages than later)
- Evaluating facilities, activities, etc.

**Different ways to obtain information:**

- Put form in packet and ask to have it handed in before conclusion of workshop
- Have forms on tables/desks and ask for at the conclusion of each session
- Hand out at the end of the workshop and allot time for participants to complete and return
- Ask that the form be sent back after the workshop

## MISCELLANEOUS

### Restrooms:

Locate ahead of time.

Be sure there are enough for size of group

### Moving between buildings: (at unfamiliar location)

If in more than one location (as in General Session, classroom, lunch, etc.), allow for a realistic time in agenda for getting from place to place. Have a local person supply you with this information, then check it out yourself.

### Signs:

Primarily if in unfamiliar area, or if having more than one discipline in same location

Identify room/session

Show directions

Give information

## NAME TAGS

Very readable

Large block letters

Best done ahead — not by participants

Don't crowd on too much information

Use just the most pertinent information  
(ex. — first name, "from", subject area)

May color code for different subject areas  
break-out groups  
or networking groups

Use pin-on or clip-on covers if more than one-day workshop

**REMEMBER:** Mention the advantages of wearing name tag on right side instead of left.

## OPENING SEGMENT

Introduce yourself and any other trainers or staff

Welcome the group

Set the tone / parameters / etc.

i.e. — formalized breaks

or

they can get up for "coffee", bathroom, etc. anytime they choose

Share information

Where bathrooms are

If break refreshments are provided and where

If breaks not provided, tell where available, cost, etc.

Briefly review plan / agenda for day (or days)

## PACKETS

### **These items are usually included:**

General instructions / information

Agenda

List of participants: not necessary if all from one school and already know one another

Name, address, phone of Trainer(s) and any other staff and/or presenters

Name tag

**Colored paper helps to distinguish one information sheet from another.**

### **The following are usually needed only if participants are meeting away from home:**

Meal ticket(s): this may be on their own or included

Parking permit

Emergency numbers / information

Activities or Entertainment

Maps

Local information: What to do and where to go  
Restaurants  
Shopping, souvenirs, etc.



## HANDOUTS

Everyone likes worthwhile handouts!!

Most of us are visual learners, or at least benefit from visual reinforcement.

**Make handout information:** Relevant  
Clear and concise  
Up-to-date

**Handout format should be:** Uncluttered  
Plenty of "white" space  
Easily read  
Varied  
Appropriate use of graphics

**Colored paper can be used to distinguish different topics, divisions, or categories.**

ex. — Lecture material  
Lab / Exercise / Activity material  
Resource material

If the handouts might need to be reproduced, put them on light colors such as pale blue, pink, yellow, or green; eggshell; or grey.

Dark colors such as red, purple, royal blue, kelly green, etc. make materials difficult to reproduce.

**Opinions vary on when to make handouts available:**

Beginning of session?  
End of session?  
Piece by piece during session?

**Possible "compromises":**

Short handouts that need to be read previous to discussion or activity are necessarily given out ahead of time.

Handouts to be used in an interactive way during the course of a session would likewise be given out ahead of time or as needed.

However, lengthy packets of reading materials might be held until the end of the session so that participants are not reading instead of interacting or listening. Participants should be told, though, that hand-out is coming so that they know they don't have to write down all that is said.

## LIST OF PARTICIPANTS

A list is needed if participants are from more than one location (school).

**Include:**

Name

Position

School

School address

School phone

Other information as appropriate: i.e. — which discipline taught?  
for how many years?

NOTE: Home addresses and/or phone numbers should not be used without participants' express permission.

**If have more than one discipline present for training, consider:**

Different sheet for each

Different color for each

**INCLUDE NAME, ADDRESS, ETC. FOR TRAINER(S) ALSO!!!**

# FACILITIES

**The facilities are primarily dependent upon the discipline being taught.**

Math and Communication: Almost any type of room as long as appropriate to size of group

Applied Biology/Chemistry: Needs counters, sinks, specific lab equipment

Principles of Technology: Most equipment intensive of all; needs specific location with either loaned equipment or permanent lab stations

## **Types of areas to consider:**

General sessions (if separate from classroom)

"Classroom" space(s)

Break area(s)

Restrooms (see under "Miscellaneous")

Meals

## **Also consider:**

Space ("elbow-room")

Seating

Air conditioning/heating (controllable; by whom)

Lighting - Sufficient for activities

Can be darkened if needed

Trainer NOT in front of windows (glare)

Keys and access (security; in and out to "re-stock"/set up)

## CONTRACT

**There should be something in writing, even if it is very informal, that states:**

Type of workshop

Sponsor

Location

Date

Time frame

Honorarium / consulting fee

Expenses (travel, hotel, meals, incidentals)

What trainer will provide

What sponsor will provide

This information may be in a binding Contract, an informal Letter of Agreement, a simple list of "who does what," or other instrument.

### **Consider:**

Who handles recruitment and registration?

Who arranges for facilities, meals, breaks, etc.?

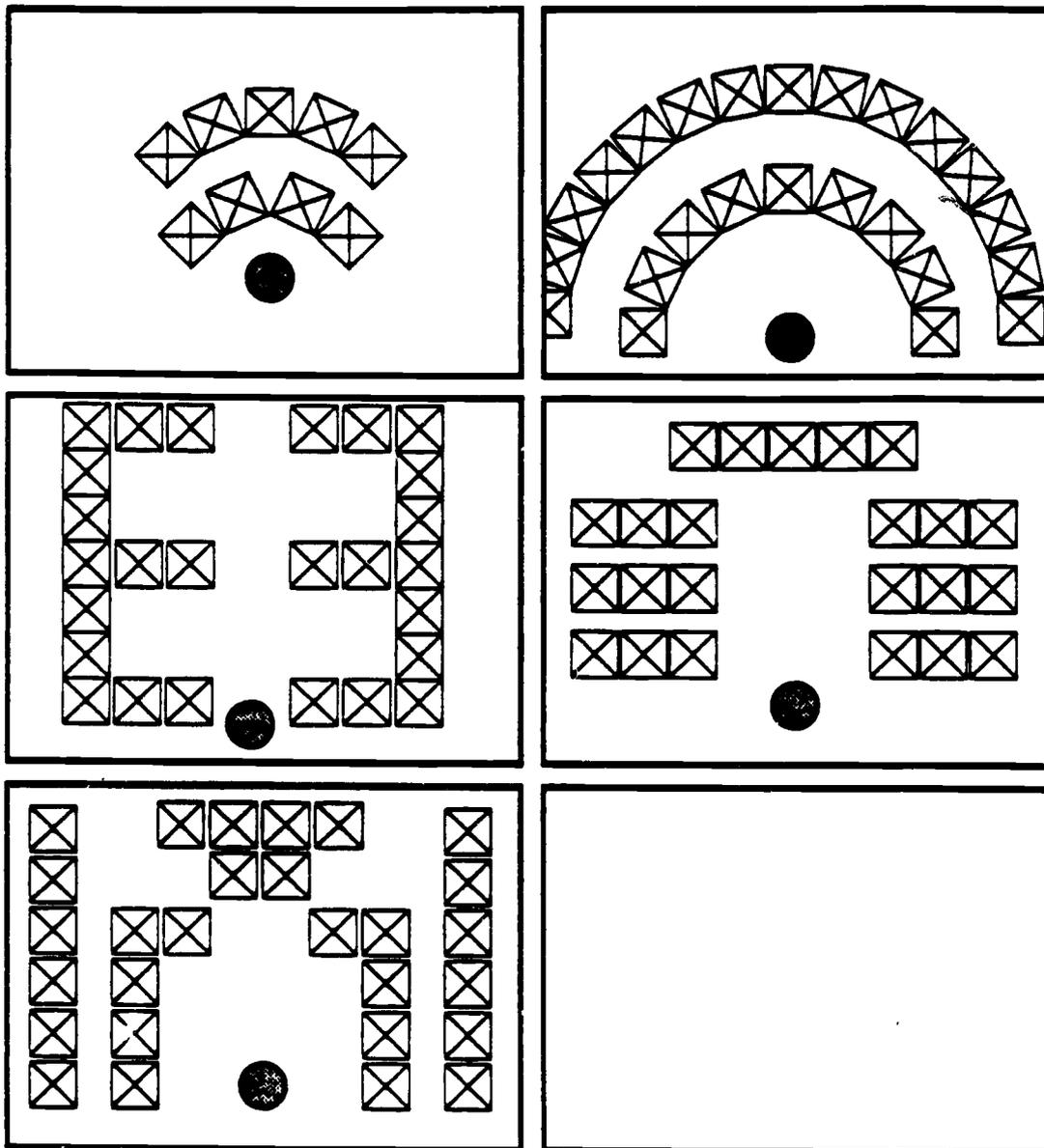
Who provides learning materials (text, etc.)?

Who duplicates hand-outs?

Who provides necessary equipment and supplies?

Etc.

# Room Arrangement for Trainings



## Important Considerations:

1. Close to trainer
2. Around a central open space
3. If furniture cannot be moved, ask all participants at the back and sides of the room to move to the front and center of room.

 = Trainer at front of room

 = Seats (Chairs/Desks)

# Instruction

The main portion of your training deals with presenting the content. The design of this section is determined by the **Length Of Time** allotted for your class and **Adult Learning Preference** of learning by doing. Realistic expectations can then be set about the amount of impact (change) possible for the participants.

1. Most in-service classes are 1 - 4 hours in length. They require no prior training to attend and are often one-shot trainings.
2. Adults learn best by doing. Lecture/demonstration is an effective way to teach basic skills and adults need to interact with the content along the way.
3. Group interaction takes triple the amount of time that lecture/demonstration does. The trainer may have to sacrifice content for the time needed for group interaction.
4. Once the design is determined, a realistic expectation can be set about the amount of impact (change) likely for the participants.

# Introduction

The purpose of the introduction is to introduce yourself, the participants and the training.

1. Introduce self:
  - A. Your name (wear a name tag)
  - B. Give job title
  - C. Establish credentials (why should the audience listen to you?)
2. Introduce support personnel/roles.
3. Acknowledge the group for coming to the training (traffic, time of year, time pressures, etc.).
4. State any trainer's expectations about the behavior of the group. If certain things bother you, this is the time to ask for the participants' help. "My timing is thrown off as a presenter when \_\_\_\_\_ and as a courtesy to me and the group, I'd greatly appreciate your help."
5. Establish the physical context (housekeeping):

A. Starting/Finishing time	F. Restrooms
B. Breaks	G. Public phones
C. Lunch	H. Movement in the room
D. Refreshments/Coffee	I. Phone number for messages
E. Smoking	
6. Establish intellectual context (content and structure of the day):
  - A. Agenda (overview of content and process)
  - B. Goals (written as outcomes for the participant)
  - C. Benefits/Payoffs (write these out and answer the question: *How will the training be beneficial?*)
7. Set philosophical context (framework from which to view the new ideas):
8. General group introductions:

Have participants introduce themselves to several other people. See following sheet for suggestions.

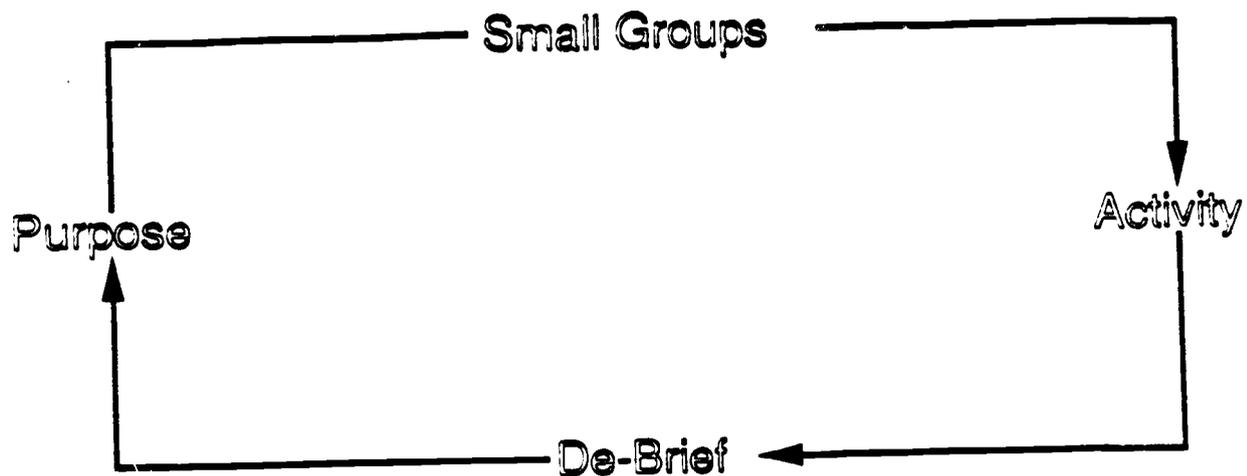
# Getting Adults Involved

Introductions may be designed to move the group quickly into the content area to be presented. For example, trios or quartets could introduce themselves while discussing issues or personal experiences with an area covered on the agenda.

- What are your expectations for this training?
- What do you do to be effective in \_\_\_\_\_ ?
- What is the biggest problem you are having with \_\_\_\_\_ ?

Have the groups compile their answers to the above questions on chart paper which is to be posted as a group memory. Once posted, ask the groups' help in synthesizing the information and be prepared to react to the content of the group. State purpose of the activity directly and tie to content of training.

# Group Interaction Model



- To Small Groups:**
1. Give clear, sequential directions, preferably written and shown on overhead.
- During Activity:**
2. Monitor groups, answer questions, give specific feedback.
  3. Give time warning signals.
- In De-Brief:**
4. Lead discussion of experience. Ask participants for their reactions and what they learned.
  5. Summarize learnings.
- Purpose:**
6. Directly tie learnings to content of training. Tell them what they learned.

# In-Servicing Your Own Staff

1. Determine audience norms—What is your faculty like during in-services and faculty meetings?
  - mandated/voluntary
  - District Office "direction"/faculty choice
  - principal present/not present
2. Ask informal leaders on your staff for their support. Share the content and teaching design with them. Take their suggestions and incorporate them into presentation. Ask them for strategies about dealing with certain personalities.
3. Fit within the norm (at least initially)
  - "experienced" not the Expert – share, don't teach.
  - Set realistic expectations about audience behavior and audience involvement.
  - Do not use body proximity.
4. Be organized:
  - Begin on time
  - Write out agenda, goals and teacher benefits
  - Summarize before ending
  - End 5 minutes before schedule

# **In-Servicing Your Own Staff**

**(continued)**

**5. Support presentation with visuals:**

- Attractive, easy to read handouts written specifically for the workshop
- Include copies of all transparencies
- Allow room for notetaking on the sheets

**6. Safest presentation method is lecture/demonstration**

- More "content" can be presented than with learning by doing
- Time is under the control of presenter

**7. Limit group interaction to short Focus & Process type questions which are shared with a neighbor:**

**Tell Neighbor –**

**One thing you learned today that...**

- surprised you
- you have a question about
- you knew before
- you disagree with
- you are committed to trying
- you wish you had known before

# Conclusion

This part of your training serves as a basic review of all that was presented. This segment should make up 10% of the total training. Don't shortchange this part. Your summary makes the connection between all of the content.

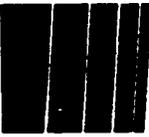
1. Review the content (perhaps through summary pages posted around the room, key handouts or other visual aids).
2. Review the objectives for the training. Give the answers to the participants or have them try to answer. Answer any additional questions.
3. Restate the payoffs for the participants.
4. Evaluation sheets need to be passed out and collected.
5. Finish the workshop with some thank-yous. (Attentive audience, people who helped with the logistics or whatever else feels appropriate.)
6. Clean up.

# People Problems and Suggested Remedies

1. Rearrange seating after breaks and lunch so complainers are kept non-aligned.
2. Meet with person at the first break and ask for his/her help. Be honest about what the training can and cannot do for his/her expectations, suggest places, resources for this person to meet the interests/concerns not to be met in your session.
3. Let others in the group handle an aggressive interrupter. Ask, "Are there others who feel this way? Please raise your hand." It is very likely the response will allow you to move on with, "Since this matter seems of limited interest, we can discuss it at the next break rather than taking the group's time."

## Other Situations and Remedies

4. Off-Task  
(Grading papers, reading a book, doing a crossword puzzle, etc.)  
In your introduction, clearly state what your expectations are about these off-task activities. Walk toward the off-task person and see if trainer proximity stops the offending behavior. If behavior continues say, privately at break, "As a courtesy to me and to the group, please help me by \_\_\_\_\_."
5. Yes, but...  
At first break, privately ask that the person write down the "Yes, but..." kind of questions and the two of you will meet at the next break to discuss the questions.
6. Doubters & Headshakers  
Acknowledge these folks for their concern and then continue. For example, "Sharon, I can see you shaking your head and I realize that you don't think that this is appropriate. You know, you may be right. Now, let's continue."
7. Know-it-alls & Dominators  
Acknowledge his/her expertise in the subject such as "Brad, I realize you have conducted a great deal of research in this area." Write his/her name on the board and area of expertise as a future reference and then continue with training.
8. Ramblers  
When s/he stops for a breath, thank the person, rephrase one of his/her statements and move on. If the problem continues, be direct: say, "I need you to state the main point on the topic we are discussing now."



*Resources  
("Sample"  
Lesson Plans)*

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## "SAMPLE" TRAINING PLAN

**UNIT:** "The Problem-Solving Process"

**TRAINING  
TOPIC:** Identify & Select The Problem

**OBJECTIVE:** The trainee, working as a part of a group, develops a statement of the problem that is understood by all members.

The group develops a statement of the desired state to be achieved by solving the problem.

**INTRODUCTION:** Start with an awareness that something isn't right - there is a discrepancy between what is and what ought to be.

**METHOD:** Brainstorming discussion: "What are the possible reasons for this problem?"

- Break the problem down into smaller problems (see attached sheet), then review, combine, eliminate and rank the problems.
- Clarify and write problem statements.
- Select one problem statement.

**EVALUATION:** Through consensus, the group will use a checklist to determine if a satisfactory conclusion has been reached before moving on to the next step.

**NOTES:**

"Sample"

**Teacher-Training Workshop**  
**Model One-day<sup>†</sup> Agenda**

**Applied**  
**Mathematics**

- 8:30 AM Welcome, Workshop Objectives  
Overview of Applied Mathematics  
Overview Video  
Unit Objectives A through 22  
"Walk-through" Unit 2, *Estimating Answers*
- Video
  - Student Text
  - Teacher Guide
- 10:00 AM 15-minute Break  
Teaching Strategies & Cooperative Learning
- Video
  - Learning the Concepts
  - Hands-on labs
  - Solving Problems
  - Summary and Testing
- Resources for Evaluating Student Progress  
Learning to Use Special Equipment
- Scientific Calculators
- 12:00 noon Lunch
- 1:00 PM Hands-on Lab Activities
- Unit B, Activity 2: *Calculating free-throw percentages*
- Learning to Use Special Equipment
- Accu-Line™ Drawing Kits (w/ video)
  - Vernier Calipers
- 3:00 PM 15-minute Break  
Hands-on Lab Activities
- Unit 14, Activity 1: *Pendulum length and period*
- Learning to Use Special Equipment
- Micrometer Calipers
  - Unit 12, Activity 1: *Measuring average paper thickness*
- Getting the Lab Equipment
- 4:45 PM Wrap-up and Final Adjournment

<sup>†</sup>**NOTE:** CORD strongly feels that two days is a minimum length for an *Applied Mathematics* teacher workshop. But with a *very small group* (e.g. 2 or 3), it is possible to accomplish some degree of training in an 8-hour period.

"  
*Sample*"  
~~~~~

## PROBLEM 1

Recognition of different tissues in the microscope.

A major portion of the class I teach deals with the recognition of cells, tissues and organs in the microscope. The students have skill deficiency in the ability to discern the characteristic differences.

## SOLUTION

### Photographs

The book we use for Anatomy provided a set of 35mm. slides which we have used to show tissues to students. The main problems were: 1) they looked just like the pictures in the book, & 2) they didn't look like most of the slides the students were responsible for learning. Hank Fabian & I began the development of a set of 34mm. slides for this class. We then considered photographs in an album form. Hank recieved a "mini grant" to provide for all of the necessary film, processing, & album materials. He spent the majority of one summer photographing our microscope slides. Several different classes, Zoology, Botany, basic Biology, & Anatomy & Physiology slides were photographed. All of these classes were given albums to use as a teaching aide.

## RESULTS

The 35mm. slides were an excellent way of showing the whole class what they were required to recognise about each type of cell, tissue, & organ. This has continued to be a major aide to instruction in the 2 Anatomy & Physiology classes. The photograph albums have been used to a lesser extent. They are used in a one on one situation with students that are having problems with individual slides.

## PROBLEMS / POSSIBLE SOLUTIONS

### 35mm. slides

- P. The largest problem is keeping people from getting them out of sequence for the demonstration. We have made several different slide presentation carousels. Different teachers need different set ups so they make there own then do not put them back. We have tried labels, It has helped a little.
- S. At present, I cannot see a solution other than complete sets for each teacher. The price would not permit this solution.
- P. Another problem is most of the slides are at one magnification. Students need to see the differences at each magnification.
- S. Given the opportunity to make new slides I would make copies of the representative slides at all magnifications. I would also like to include drawings with lables and descriptive commentary to make it easier for the student (& some teachers) to use the albums individually. With the new technology I would like to incorporate the purchase of CD disks of our work for the time when the Learning Center (area for testing, individual use of computers, tutoring by individuals & computer programs) has the equipment to use them.

# APPLIED ACADEMICS BIOCHEMISTRY

## EQUIPMENT

microscope with verticle eyepiece (not at an angle)  
color lenses (if not a part of your present microscope)  
microscope slides of the representative cells tissues & organs  
SLR (single lens reflex) camera  
microscope attachment for SLR camera  
possible need for different eyepiece to adapt to camera  
film (lots of film)  
processing of the film

## SET UP

The special adaptor connects the microscope and the camera. Some adaptors have a special 'trigger' that allow the operator to take the picture without touching the camera, so there is less loss of film to camera movement. The camera is now your eyepiece. Do not take this apart to change microscope slides. Use the apparatus as you would the microscope. The difference is in the ability of the camera. By adding different lenses to your SLR you can increase your magnifications many times beyond your present microscope.

## SUGGESTIONS

Use a small roll of slide film for practice & turn it in before using all your supply. This allows you to adapt your camera for better focus & lighting

- a) if the lighting is too yellow a blue lens placed on your condenser or light source eliminates the problem.
- b) if you are seeing the light filaments on the low power lenses you need an opaque light diffuser lens.
- c) if you want to see some backlighting effects this requires a special lens

Keep notes on which slides you photograph and the magnification. This prevents duplication and waste of film.

Instead of buying different types of film, buy slide film of any speed that you are comfortable with. The developing companies can make multiple copies of slides, photographs AND CDs from one role.

Making the CDs. Collect all your slides in the correct sequence (& best copies). Then turn them in to a company that puts them on a disk. In the future it could be adapted to include comentary.

## APPLIED ACADEMICS BIOCHEMISTRY

### OBJECTIVES / SCANS PROBLEM 1

#### OBJECTIVES

**Teacher Objective :** In providing this set of slides & photographs as a supplement to the existing laboratory text, my objective is to help the student to efficiently use the microscope, understand what they see in the microscope & identify the basic tissue groups, individual tissues & the shapes that are characteristic of each tissue. This is a skill used by lab technicians in medical & research facilities.

After viewing & discussing these visual aides (slides &/or photographs) with the teacher while using the laboratory text, the student, using a light microscope:

will be able to find a similar tissue in the microscope.

will be able to give the proper major tissue type either orally or written on a test.

will be able to give the name of the individual tissue either orally or written on a test.

will be able to describe the structure indicated by the pointer in the microscope eyepiece either orally or written on a test.

#### SCANS CORRELATION

In completing this exercise the student will use the following competencies

1. **Resources:** identification, organization & planning of equipment & material usage
  - A. **Time** - the use of allocated lab time to complete exercise.
  - C. **Materials & facilities** - use of the microscope, provided microscope slides, photographic slides to complete the assigned task
2. **Interpersonal:** each microscope is used by a two person team
  - A / B. **Participates as a member of a team / Teaches others new skills** - students help each other to succeed in the use of microscope and the recognition of tissues. Some find the microscope skills easier, others recognition easier. The teams that work best together have adapted these skills to work in harmony. students work across team lines as well as inside their team to accomplish the task.
  - E. **Negotiation** - students must share slides between stations and teams, it is their responsibility to work out this aspect of the lab.
  - F. **Works with diversity** - the teams consist of two or more people of various backgrounds who sit near each other. During the semester, bonding occurs between these persons. This bonding has no observable previous outside correlation.

**SCANS CORRELATION cont..**

**3. Information: acquisition & use**

**A/ B / C. Acquires & evaluates / Organizes & maintains / Interprets & communicates information - both visual microscope work & auditory explanation by the instructor is received by the student. The student produced illustrations in the lab book testifies to the students ability to organize, interpret & communicate their understanding of the information. Provided space in the lab book allows the student to place the information recieved in an organized place for recall. This drawing provides the use of hand-eye work which allows interpretation of the tissue into recognizable structures. The instructor can view the illustrations & correct interpretation during lab time before the test.**

**4. Technology: works with microscope.**

**B. Applies technology to task - the ability to use the microscope is essential to this lab.**

**C. Maintains & troubleshoots equipment - the microscope needs constant attention. Cleaning is done each day by the student. Occasionally problems with the condenser arise and the student is instructed how to improve focus or to place the condenser in proper position.**

**In completing this exercise the student use the following foundational skills or qualities.**

**Basic Skills**

- A. Reading - the laboratory manual has exercises to perform prior to class and instructions to follow (technical reading).**
- B. Writing - the manual requires written explanation to certain questions.**
- D. Listening- the oral explanation that accompanies the 35mm. slides requires the student to discern important information not given in the lab manual.**
- E. Speaking - communication of thoughts & explanation of drawings by students to each other & to the instructor is incorporated in the structure of the laboratory time.**

**Thinking Skills**

**B / C. Decision making / Problem solving - there are many slides to be viewed and assimilated. The time restraints of a 2 hour class period presents a problem to the student. Students must decide between two alternatives: 1) looking at the necessary slides rapidly or 2) spending extra time in the lab (during open lab time). The results of their ability to decide the solution to this problem is quite visible in the test results**

**Thinking Skills cont..**

- D. Seeing things in the mind's eye - this is the most important part of this whole laboratory exercise. The student must be able to organize & process the information given in a variety of media (microscope, 35mm. slides, photographs, oral explanation & book exercises). The exercise of this ability is one of the reasons for the making of the extra material. It gives the student extra input for the development of the skill of interpretation of things found in the microscope.**
- E. Knowing how to learn - learning the use of the microscope and the ability to understand what is seen is imperative to success in this laboratory exercise.**
- F. Reasoning - when viewing tissues, many of the structures are similar. The student must be able to differentiate between these structures. Relationships between function & shape help to develop the ability to choose the separate tissues. Reasoning is developed as an ability to decide between the differences.**

**Personal Qualities**

- A. Responsibility - the student is personally responsible for the completion of the assignment.**
- B. Self-esteem - ability to use the microscope & see the tissues begins very low. As the assignment continues and the student uses new skills, corresponding abilities grow and as a result, self-esteem grows.**
- C. Sociability - the student develops skills by working with other students in a constant setting of cooperation. Students who do not develop social skills end up with no partners to work with.**
- D. Self-management - ability to pace themselves in the time restraints of the lab. setting is necessary to the completions of this assignment.**
- E. Integrity / honesty - the student who uses a partner's work is unable to do well in a test situation. This teaches the value of doing your own work real fast.**

"Sample"  
~~~~~

***Applied Academics Teacher Training***

***Integrated Emissions Unit  
for  
Auto Mechanics Program***



**Focus:** This is an integrated lesson to be included in the Auto Mechanics curriculum during the unit on auto emissions. The students will learn the procedure for conducting auto emissions tests and the mechanical adjustments for the car. In addition, they will also gain an overall understanding of the effects of auto emissions on their environment.

**Concepts Inherent in the Unit:** Applied Biology/Chemistry  
Applied Mathematics  
Applied Communications

**Instructional Activities/Techniques:** ABC Lab and Exploration  
Numeric Data Collection  
Graphing  
Hypothesizing  
Technical Writing

**Instructional Objectives:**

Applied Biology/Chemistry:

Observe some effects of air pollution on plant growth.

Applied Mathematics:

Gather numerical data and calculate the impact of heavy traffic on stop light synchronization.

Applied Communications:

Evaluate and describe the overall effects of air pollution as related to auto emissions.

**Lesson Plan:**

- I. Applied Biology/Chemistry Air and Other Gases  
Lab #7: "Do Auto Emissions Affect Plant Growth?"
- II. Applied Mathematics  
Chose a route in the city and travel during two different times of day, thus varying the traffic volume. Collect data on:
  - a. amount of time spent at each light
  - b. # of lights green, # of lights red
  - c. calculate total CO% and HC emissions for each route
- III. Applied Communications  
Evaluate and describe the findings from the lab experiment and the math data collected. Write a proposal to the City Planners of Aurora detailing a suggestion for reducing auto emissions during heavy traffic periods. Information must be cited from both the science area and the math area. Include the perspective of an auto mechanic and the limited adjustments that can be made mechanically on an automobile.

**SCANS Competencies:**

- I. **RESOURCES:** Identifies, organizes, plans, and allocates resources.
  - A. Time: Selects goal-relevant activities, ranks them, allocates time, and prepares and follows schedules.
  - C. Material and Facilities: Acquires, stores, allocates, and uses materials or space efficiently.
- II. **INTERPERSONAL:** Works with others.
  - A. Participates as Member of a Team: contributes to a group effort.
- III. **INFORMATION:** Acquires and uses information.
  - A. Acquires and Evaluates Information.
- IV. **SYSTEMS:** Understands complex inter-relationships
  - C. Improves or Designs Systems: suggest modifications to existing systems and develops new or alternative systems to improve performance.
- V. **TECHNOLOGY:** Works with a variety of technologies.
  - B. Applies Technology to Task: Understands overall intent and proper procedures for setup and operation of equipment.

"Sample"

Applied Communications  
Lesson Plan

Module 9 - Presenting Your Point of View

Lesson 1 - Persuasion

Opening Activity: Buttermilk taste test

- Video tape this activity.
- Ask for a volunteer - someone who does not like buttermilk; has never tasted it and states that he or she never will.
- Volunteer sits in front at table; place unopened carton of buttermilk in front of person with several plastic glasses; have vacant chair next to volunteer.
- Ask members of the audience to alternately take a seat in the vacant chair to try to persuade volunteer to take a taste of the buttermilk.
- Object is to get volunteer to simply taste buttermilk; one swallow; volunteer does not have to drink the whole carton.
- There is a "ringer" in this activity; with a syringe and blue food coloring, pierce the carton in the upper area under the fold and shoot the blue food coloring into the carton to dye the buttermilk blue. Be very careful not to "tamper" with the carton so that no one can tell prior to opening that this has been done.
- The first time the milk is poured, all participants will be surprised; volunteer probably will not taste it; represents how facts and conditions can sometimes change in a situation. Assure audience milk is safe, but explain no more. Continue with exercise.
- At completion of exercise, discuss types of persuasive techniques used: process activity.

## **Go to Module 9, Lesson 1 Materials**

1. Read "The role of Persuasion in the Workplace", pages 1 - 4; discuss the six steps on page 4.
2. Review video of buttermilk activity identifying steps as they occur in the tape.
3. Brainstorm situations that might occur at work where persuasion would take place.
4. View Video 9A; process with questions in lesson 1.
5. Continue through module 9 lessons, referring back to both video 9A and the video of the buttermilk activity.

\*Buttermilk activity and lesson 1 will probably take 2 days; all 10 lessons of this module about 3 weeks.

Evaluation: excellent module with material appropriate to varying age groups; for younger students (middle school - 10th grade), instructor may wish to change activities to relate more to given situations: persuading a parent to lengthen curfew on the night of a school dance, or a written communication to a company about excessive packaging (see attached assignment). Focus on the job in this module will be very applicable to students ages 16 and over.

Relationship to SCANS competencies: this lesson and activity focuses primarily on working with others (Interpersonal) through negotiation and contributing to the "group" effort to persuade volunteer to do the taste test; high emphasis on acquiring and using information (Information Competency), organizing, interpreting, and communicating information; also incorporates many of the Foundation Skills: speaking, listening, creative thinking, problem solving, reasoning, self-management, and integrity/honesty.

Module is especially helpful when focusing on problems on the job; most juniors and seniors in today's high schools have jobs, and will find the information in this module highly applicable.

*“Master”  
Sheets*



**SAMPLE TRAINING/CONSULTATION AGREEMENT**

Name of Trainer (Consultant): \_\_\_\_\_

Dates of Training (Inservice): \_\_\_\_\_

Place: \_\_\_\_\_

Fee: \_\_\_\_\_

Payment: \_\_\_\_\_

Materials: \_\_\_\_\_

Follow-up (If applicable) \_\_\_\_\_

Cancellation Agreement \_\_\_\_\_

Signatures of Agreement:

\_\_\_\_\_  
Trainer (Consultant) Client

\_\_\_\_\_  
Date Date

## Inservice Worksheet

Date: \_\_\_\_\_ Topic: \_\_\_\_\_  
 Time: \_\_\_\_\_ Speaker: \_\_\_\_\_  
 Location: \_\_\_\_\_ Phone: \_\_\_\_\_  
 Accommodations: \_\_\_\_\_  
 Contact Person: \_\_\_\_\_ No. of Participants: \_\_\_\_\_  
 Phone: \_\_\_\_\_

CONCERN	NEED	HAVE	COMMENTS
LETTER:			
Request			
Map			
ROOM:			
Table (presenter)			
Tables (participants)			
Podium			
P.A. System			
EQUIPMENT:			
Overheads			
Screen			
Film projector/reel			
Chalkboard			
Extension Cord			
MATERIALS:			
Tape			
Scissors			
Paper			
Evaluation Forms			
Room Location Signs			

CONCERN	NEED	HAVE	COMMENTS
REGISTRATION:			
List of participants			
Name Tags			
Agendas			
Pens (felt & ballpoint)			
Receipt Book			

AGENDA:

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ANNOUNCEMENTS

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OTHER NOTES:





**III. GUIDED PRACTICE:**

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**IV. INDEPENDENT PRACTICE**

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**V. CLOSURE (Should include lesson evaluation)**

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**VI. ASSIGNMENT:**

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**VII. ASSESSMENT ACTIVITIES**

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# TRAINING PLAN SHEET

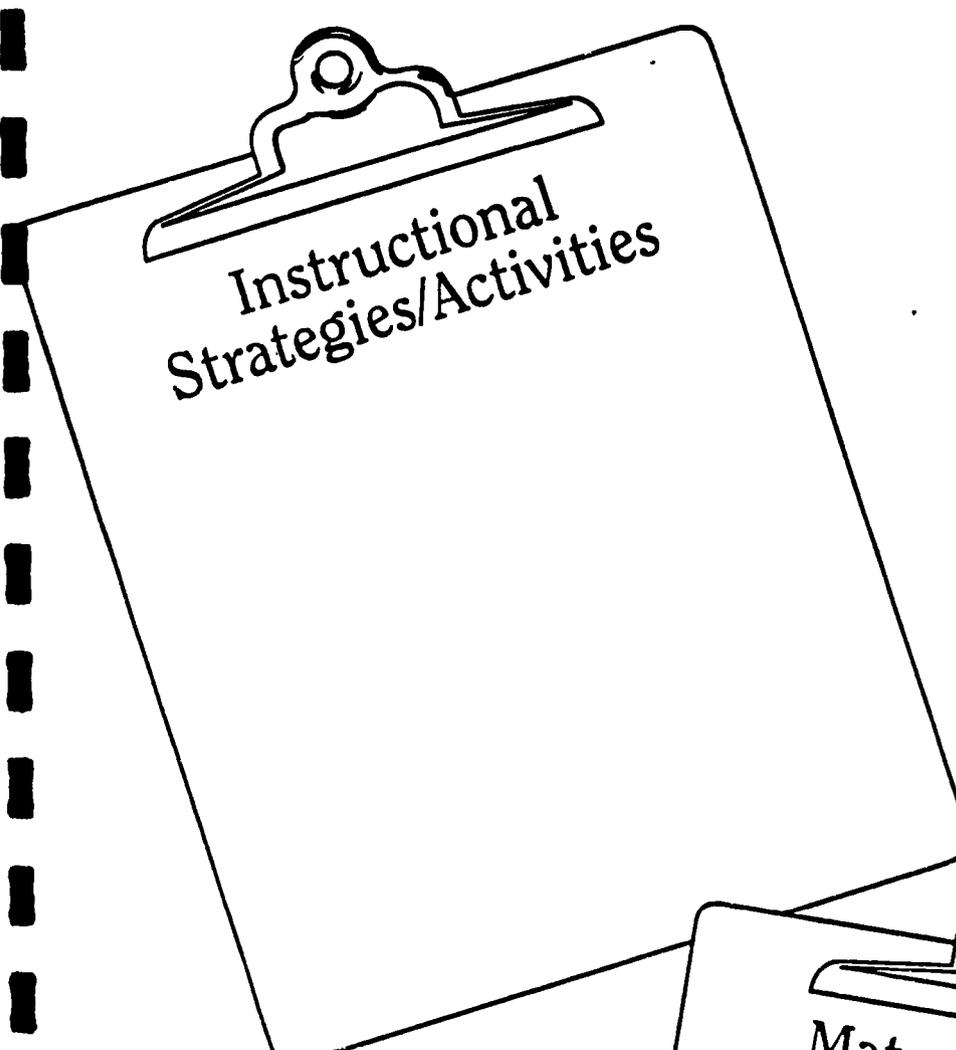
Handout

Academic Content Indicator (Criteria)	Technical skill Indicator (Criteria)	Employability Skill (Criteria) (SCANS-Dept. of Ed.)	Assessment Instrument (Evaluation Tool)

# TRAINING SESSION SCHEDULE

SCH/Trainer-D,QFS

DAY	TIME	TOPIC	ACTIVITY	VISUAL/HANDOUT	KEY POINTS



Instructional  
Strategies/Activities



Materials/Supplies

# FEEDBACK

Title of Training: \_\_\_\_\_

Date(s): \_\_\_\_\_ Time: \_\_\_\_\_ Trainer(s) \_\_\_\_\_

(1--6) Please circle the number that represents your opinion for this training.

Did the Trainer:	Agree					Disagree	Does Not Apply
1. Present a well-organized workshop?	5	4	3	2	1	D.N.A.	
2. Meet the objectives for this course?	5	4	3	2	1	D.N.A.	
3. Present the content clearly?	5	4	3	2	1	D.N.A.	
4. Answer the questions clearly?	5	4	3	2	1	D.N.A.	
5. Provide support in the learning process?	5	4	3	2	1	D.N.A.	

6. What part of the workshop was the most beneficial to you?

\_\_\_\_\_

Why? \_\_\_\_\_

\_\_\_\_\_

7. What part of the workshop was the least beneficial to you?

\_\_\_\_\_

Why? \_\_\_\_\_

\_\_\_\_\_

8. What would you change about the workshop? \_\_\_\_\_

\_\_\_\_\_

9. Do you feel you learned enough to return to your work position and implement some of what you learned? Yes \_\_\_\_\_ No \_\_\_\_\_

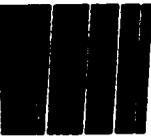
10. Would you recommend this training to others: Yes \_\_\_\_\_ No \_\_\_\_\_

11. Additional comments: \_\_\_\_\_

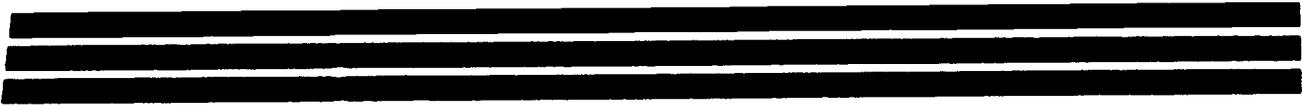
\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_



*References  
and  
Suggested  
Readings*



# Workshop and Training Design Bibliography

## The Winning Trainer by Julius Eittington

Gulf Publishing Company, 1984

This 8 1/2 x 11 spiral bound manual is 400 pages of excellent training strategies—small group work, role playing, simulations, team building, problem solving, using props, etc. It's expensive (\$36?) but useful in saving time and designing both meetings and adult training environments. It can be ordered direct from Gulf Publishing Company—Book Division, P.O. Box 2608, Houston, Texas 77001. There is a price break on quantity orders.

## Planning, Conducting and Evaluating Workshops

by Larry Nolan Davis, University Associates, Inc.

This simple, typewritten book is a wealth of organizational ideas and considerations. It was first in my collection of books on training and is a straight-forward, common sense basic approach... and kept me ALIVE wonderfully for three years as I learned about giving inservice. It can be ordered from University Associates, Inc. 8517 Production Ave., San Diego, CA 92129 for \$15.95 plus tax and shipping. (VISA and MC orders by phone at [619] 578-5900.) University Associates puts out quarterly catalogues of private sector training resources—audio tapes, video and LOTS of books and workshops to improve your training skills. Getting on their mailing list will open up a whole wealth of resources.

## A Whack in the Side of the Head by Roger von Oech

Warner Books, 1983

Full of wonderful pictures and stories, this playful book provides an entire arsenal for helping groups unlock their minds to other possibilities. I use it for graphic ice breakers, warm-ups and intros to group activities. Easily read in an evening and frequently revisited! (\$9 from local bookstores...) His second book, *Kick in the Seat of the Pants*, has similar great graphics... and some similar idea-generating activities.

## Games Trainers Play by John W. Newstrom and Edward E.

Scannell, McGraw Hill Book Company, 1980

Another book of training strategies, it is a typewritten and boring format compared to *The Winning Trainer* AND it has excellent ideas from organizational tips to games, problem solving, climate setting, etc. (\$14?) Also a second book is available under the title, *More Games Trainers Play*.

## RESOURCES

### U.S. Gov. Publications

The following list of U.S. Government Publications provide the title, stock number, and price per document and are available from:

Superintendent of Documents  
P.O. Box 371954  
Pittsburgh, PA 15250-7954

#### SCANS documents

Learning A Living, Part I	029-000-00439-1	\$2.50
Learning a Living, Full Report	029-000-00440-4	6.50
What Work Requires of Schools	029-000-00433-1	3.25
Kills & Tasks for Jobs	029-000-00437-4	27.00
Teaching the SCANS Competencies	029-000-00438-2	11.00

A Spanish Language Version of What Work Requires of Schools is also available as:

Lo Que Trabajo Necesita de las Escuelas	029-000-00441-2	3.25
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#### HELPING AMERICA COMPETE: The role of Federal Scientific & Technical Information:

U.S. Congress Office of Technology Assessment	052-003-01196-4	3.75
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The following documents and a free U.S. Gov. catalog are available from the U.S. Government Bookstore at:

Norwest Banks Building  
201 West 8th Street  
Pueblo, CO 81003  
Telephone: 719/544-3142  
Fax: 719/544-6719

#### COMBINING SCHOOL AND WORK: Options In High Schools And Two-Year Colleges

U.S. Department of Education, Office of Vocational & Adult Education \$3.00  
March 1991. This document has a very good Bibliography for identifying books and other publications dealing with articulation, apprenticeships, and the Tech Prep effort.

#### IMPROVING SCHOOLS and EMPOWERING PARENTS: Choice in American Education

U.S. Department of Education, Office of Educational Research and Improvement \$3.00  
October 1989. A report based on the White House Workshop on Choice in Education held during 1989.

#### DEVELOPING LEADERS for RESTRUCTURING SCHOOLS: New Habits of Mind and Heart

U.S. Department of Education, Office of Educational Research and Improvement \$3.50  
March 1991. A report of the National LEADership Network Study Group on Restructuring Schools.

## **SCANS...New In The Classroom**

### **SCANS...New in the Collection**

SCANS Competency Development Activities for Students: Celebrating Cultural Diversity  
(n.d.) order #0725

SCANS Competency Development Activities for Students: Interpersonal Communication Skills  
(n.d.) order #0728

SCANS Competency Development Activities for Students: Resource Planning and  
Management (n.d.) order #0730

SCANS Competency Development Activities for Students: Teaming & Group Problem Solving  
(n.d.) order #0727 Cost: \$5.00 each topic

To order, write to School-to-Work/Tech Prep Clearinghouse, FSU/ESP, 2035 East Dirac Dr.,  
251 Sliger Bldg., Tallahassee, FL 43310 or call 1-800-428-1194

## TECHNOLOGY RESOURCES/REFERENCES

### VIDEO

"Teaching and Learning With Technology"

ASCD 30 minute video

Shows educators how teachers are using technologies to integrate subject areas.

For ordering information call: ASCD Order Processing (703) 549-9110

### BOOKS

"The Technology Age Classroom"

Author: Terence R. Cannings and Leroy Finkel

Available from: Franklin, Beedle and Associates

8536 S.W. St. Helen's Drive, Suite D

Wilsonville, OR 97070

Cost: \$33.95

"The Whole Internet User's Guide & Catalog"

Available from: O'Reilly and Associates, Inc.

103 Morris Street, Suite A

Sebastopol, CA 95472

Cost: \$24.95

"How Networks Work"

Author: F.J. Derfler and L. Freed

Available from: Davis Press

Emeryville, CA 94608

Cost: \$24.95

### SOFTWARE

"The Guide"

Software developed for the California Technology Project

For information call: (310) 985-9631

"Mosaic"

Public Domain Software available by anonymous FTP (File Transfer Protocol)

from: NCSA at FTP.NOSA.UYIUS.Edu (141.142.20.50) Location: /LCA

"Projects" (Curriculum)

Project ABCD (Alternative Blueprint for Curriculum Development)

Texas ASCD has designed an electronic curriculum that incorporates lesson plans, teachers guides, charts, diagrams, assessments, answer keys, suggested resources and activities.

For more information contact: Houston Branch of ASCD (713) 286-3603