

DOCUMENT RESUME

ED 288 838

SP 029 583

TITLE Teacher Training: A Reference Manual.
INSTITUTION Peace Corps, Washington, DC. Information Collection and Exchange Div.
PUB DATE Nov 86
NOTE 207p.; For related Training Guide, see SP 029 584.
PUB TYPE Guides - Classroom Use - Guides (For Teachers) (052)

EDRS PRICE MF01/PC09 Plus Postage.
DESCRIPTORS *Classroom Techniques; *Developing Nations; Learning Strategies; Lesson Plans; Student Evaluation; Teacher Education; Teaching Methods; *Trainers; *Training Methods; *Training Objectives; *Volunteers
IDENTIFIERS Resource Utilization

ABSTRACT

This reference manual is designed for Peace Corps volunteers who are involved in teacher training in developing countries. It is to be used with the Teacher Training Guide that accompanies it. The first chapter discusses differences between the educational systems of the host country and that of the United States. It prepares volunteers for their roles as trainers of teachers by discussing: how to conduct a needs assessment, adult learning styles, designing training programs for teachers, and training, supervision, and observation techniques. Chapter two provides a guide for various aspects of teaching, such as child and adolescent learning, instructional objectives, lesson and unit planning, classroom teaching technique, materials development, and student assessment and improvement. The final chapter discusses support and networking issues and specific collaboration skills. Each chapter and section presents theoretical and practical information and includes an "Activity Box" that is designed to help the trainer apply ideas presented in the section. The appendix contains a collection of forms that the trainer can use during a training session. (JD)

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Teacher Training

A Reference Manual

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Peace Corps



Teacher Training: A Reference Manual



the Center for International Education

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PEACE CORPS
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November 1986

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ACKNOWLEDGEMENTS

This **Teacher Training Reference Manual** and the accompanying **Teacher Training Guide** were developed over the course of several months through the collaborative efforts of a team of individuals at the Center for International Education, University of Massachusetts, Amherst. It was produced under contract to and in association with the Education Sector in the Office of Training and Program Support, Peace Corps, Washington.

A participatory team approach was used to produce this set of resources for teacher trainers. We are grateful to the following Content Specialists who contributed their knowledge and expertise by researching and writing on selected topics: Jane T. Benbow, Paul Englesberg, Robert Fuderich, Marilyn Gillespie, Mohammed Farah A. Good, Dawn Gordon, Mark Lynd, David S. McCurry and Douglas Passanisi.

Professors George E. Urch and Robert J. Miltz, the Principal Investigators of this project, provided key editorial and content input for the early drafts of both the Manual and the Guide.

David S. McCurry served as Production Coordinator and designed and produced the illustrations, tables, and other graphics which appear in the following pages. The time and effort David spent designing and redesigning the graphic layout and producing the camera-ready copy resulted in a set of materials that are easy to use, read, and reference.

We would like to thank the following staff members of the Peace Corps Education Sector, Office of Training and Program Support who worked closely with the managing editor to design and edit these materials: John Guevin, Education Specialist/Project Manager, Kathie Judge, Education Specialist/ Technical Reader, and Beryl Bucher, Education Technician/Technical Reader. Their openness and collaborative attitude complimented the team approach used to produce this manual.

We are indebted to the Center for International Education for the general support and specific helpful advice provided during the course of production. Particular recognition and thanks must go to Barbara Gravin-Wilbur, the fiscal administrator, and Anna E. Donovan and Kathy Richardson who spent many last minute hours helping with draft revisions and preparing copies to be mailed.

A special thanks goes to Anne-Laurence Dodge who, as Training Coordinator/Associate Editor assisted in editing the first draft of the Teacher Training Reference Manual. Anne's experience as a trainer has proved an invaluable resource in the production of both books.

In addition to all of the staff who participated visibly in the development of these materials we would like to acknowledge all those people from the many countries in which we have worked who have, directly or indirectly, shared their views on education with us.

Bonnie B. Mullinix
Project Manager/Managing Editor

INTRODUCTION

Peace Corps and Teacher Training

The first of Peace Corps's three stated goals is "to help developing countries meet their needs for trained manpower." Analogous to this goal is the ancient proverb (and commonly-cited Peace Corps philosophy):

If you give people fish, they will eat for a day;
if you teach them how to fish, they will eat for
a lifetime.

Peace Corps teacher training aims to do just this -- in this case, to train enough local teachers to meet a country's teaching needs. This is an important first step in freeing countries from their reliance on Peace Corps and other expatriate teachers.

Currently, about 25 percent of Peace Corps Education Volunteers are involved in teacher training activities. These activities take many forms and occur all over the world. In the formal sector, Volunteers are working with national teacher training colleges, state universities and national ministries or agencies to train host country counterparts in a wide variety of subject areas. These areas range from English as a Foreign Language (EFL) methodology, to math and science education, to physical education, special education and primary education.

In the informal sector, Volunteers are organizing and designing their own teacher training programs. Whether these programs are set up as after class activities at the Volunteer's school, as quarterly training workshops in rural village cluster areas, or as an integrated part of the school's teaching routine, the result is that information and innovative methodologies are transmitted to remote areas all around the world.

Format of the Teacher Training Reference Manual

This Teacher Training Reference Manual is designed to help Volunteers to carry out their assignments by supplying a useful and accessible resource for those involved in teacher training. The Manual is designed to be used with the Teacher Training Guide that accompanies it. The Teacher Training Manual provides the Volunteer with a source of detailed information while the Teacher Training Guide gives the Volunteer a model for how the information can be applied to an actual training program (see the Introduction to the Training Guide for a more detailed description of the levels of training addressed).

The Teacher Training Reference Manual consists of three major parts: an introduction, three content chapters, and an appendix. The first, this **Introduction to the Manual**, gives the Peace Corps Volunteer an idea of why teacher training is an important development strategy and discusses the different ways in which this manual can be used.

Chapter 1, **What a Teacher Trainer Needs to Know**, prepares the Peace Corps Volunteer for his/her role as a trainer of teachers by discussing:

- o Differences between the educational system of their host country and that of the United States
- o The whys and hows of conducting a needs assessment
- o Adult learning styles
- o Steps and considerations in designing training programs for teachers
- o Training techniques
- o Supervision and observation techniques
- o Final Considerations

Chapter 2, **What a Teacher Needs to Know**, is meant to guide any teacher through some of the important aspects of teaching that affect both how the teacher prepares to teach (before class) and how he/she actually conducts a class (in class). These aspects include:

- o Models of teaching
- o Child and adolescent learning
- o Instructional objectives
- o Lesson and unit planning
- o Classroom teaching techniques
- o Materials development and resource utilization
- o Classroom management
- o Student assessment
- o Self-evaluation and improvement

This chapter is designed to be used either:

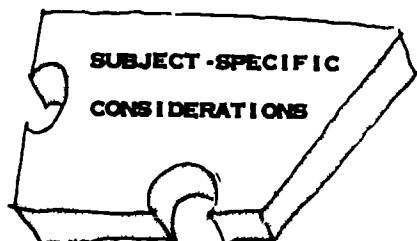
- as refresher material for Volunteers who need a quick reminder of the issues involved in effective teaching, or
- as content reference material for actual teacher training sessions.

The third chapter of the Manual: **Collaboration**, discusses support and networking issues that are important for the host country teacher, the teacher trainer, and also the Peace Corps Volunteer teacher. These include:

- o Formal and informal channels to tap human and material resources,
- o Specific collaborations skills:
 - Organization
 - Communication
 - Feedback and critiquing
 - Working in groups
 - Networking

SUBJECT-SPECIFIC CONSIDERATIONS

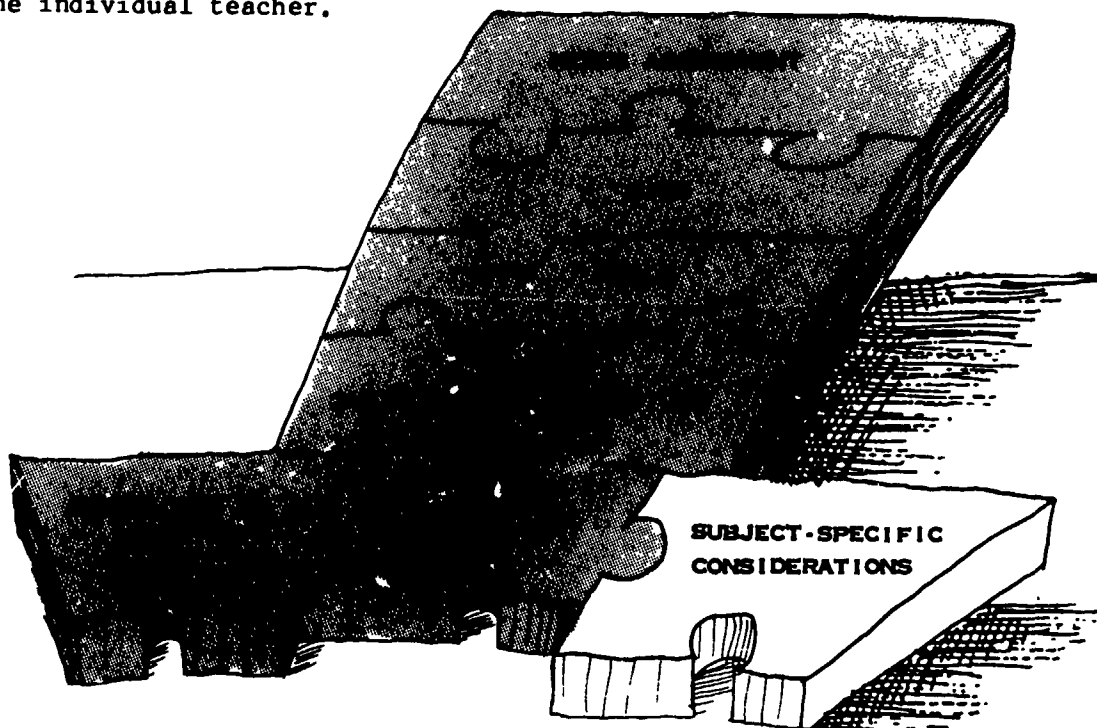
SUBJECT-SPECIFIC CONSIDERATIONS



Each subject has its own special set of considerations which influence the teacher's choice of objectives, instructional materials and techniques and, in general, the design of the lesson or unit he/she is planning. Too numerous to mention in isolation, this chapter attempts to present, with examples and references, subject-specific considerations in the context of other aspects of the educational process. Within each section the teacher will find

scattered references to teaching English, mathematics or the sciences. It is assumed that the teacher will be responsible for identifying and considering the special needs for a their particular subject when implementing any of the recommendations presented in this chapter.

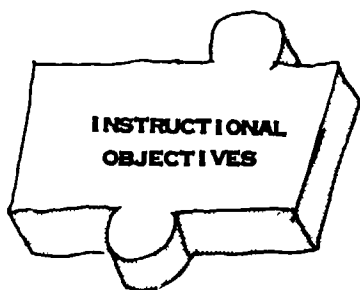
This is an appropriate time to present the educational process puzzle as it has so far been completed. Thus far the teacher has succeeded in wading through the most theoretical of the puzzle topics which provide a general understanding of the educational process that is often beyond the control of the individual teacher.



The remainder of the puzzle addresses the specific skills needed to successfully design, implement, manage and evaluate classroom activities. The first of these is the writing of clear and concise instructional objectives.

INSTRUCTIONAL OBJECTIVES

INSTRUCTIONAL OBJECTIVES



Knowing how a child learns is helpful, but it is not the end of the educational process. The teacher then needs to use this information in the classroom and, ultimately, determine how much and how well the student is learning. The clearer a teacher can be in identifying which activities demonstrate mastery of a particular topic, the easier it is for him/her to set up learning activities, the student to carry these out, and the teacher to evaluate the student's performance.

Writing a Complete Objective

An objective is a statement which identifies exactly what the student should do, how well it should be done, and how long it should take or under what conditions the given task should be completed. The more exact the teacher is the easier it will be for him/her to evaluate the student's performance. Thus, if the teacher states an objectives in terms of specific behaviors, the success or failure of a student can be easily observed. Any complete instructional objective has the following three parts:

- Type of behavior - the specific action or performance expected of the student.
- Condition - the circumstance(s) under which the behavior is to be demonstrated.
- Criteria - the degree or level to which the behavior must be demonstrated to be acceptable.

Example: Given the picture of a flower (condition), the student will be able to label the different parts (behavior), with fewer than three mistakes (criteria) and complete the task in five minutes (condition/criteria).

As you can see, an instructional objective can state each of the three parts in any order as long as they are included and a complete and accurate picture of the expected performance is drawn. In most cases, time is considered a condition and not a criteria of performance. In cases where speed is an asset, time may be a primary criteria of performance. In any case, the teacher should be clear as to whether time is a condition, a primary criteria, or both; otherwise, measurement of student performance based on the objective will be impaired.

Categories of Instructional Objectives

In the previous section child and adolescent learning was described as taking place in three primary domains: cognitive, affective, and psychomotor. If this is where learning occurs, then instructional objectives should necessarily be aimed at each of these domains and the teacher should have a strategy for accessing each. The next few pages will guide you.

Instructional objectives can be divided into three basic categories:

Type of Objective	Example of Objective
° Cognitive objectives, which deal with knowledge	The students will be able to <u>solve</u> four out of five linear equations, without the aid of outside materials, in one hour.
° Affective objectives, which deal with attitudes	The students will demonstrate their <u>acceptance</u> of the rule "quiet while others speak" by not talking during any of the two minute speeches.
° Psychomotor objectives, which deal with skills .	The students will demonstrate their ability to <u>serve</u> a volleyball with accuracy by completing eight out of ten overhand serves within the standard court lines.

Benjamin Bloom, an educational theorist, suggests that each domain not only has its own type of objective, but has many levels that the objective should test as well. Known as Bloom's Taxonomy of Educational Objectives, the levels presented below are considered hierarchical, with each new level building on the previous one and representing higher intellectual, emotional or physical attainment.

Cognitive

1. Knowledge - ability to recall previously learned material.
2. Comprehension - ability to grasp the meaning of material.
3. Application - ability to use learned material in new a concrete situations.
4. Analysis - ability to break down material into component parts and understand its organizational structure.
5. Synthesis - ability to put parts together to form a new whole.
6. Evaluation - ability to judge the value of material for a given purpose.

Affective

1. Receiving - becomes aware of an idea, process, or thing; is willing to learn or try a particular behavior.
2. Responding - actively participates; responds obediently, then willingly and receives satisfaction from responding.
3. Valuing - accepts worth of belief attitude, value or ideal; expresses preference for it; develops a commitment to it.
4. Organization - conceptualizes values; compares, relates, synthesizes and organizes values into hierarchy.
5. Characterization - allows values to control or guide behavior; integrates values into a total philosophy of life.

Psychomotor

1. Perception - becomes aware of action to be performed through senses.
2. Set - becomes ready to act mentally, physically and emotionally.
3. Guided Response - performs action under supervision through imitation or trial and error; involves practice.
4. Mechanism - performs action habitually with some degree of confidence; involves increased efficiency.
5. Complex Overt Response - performs action automatically without hesitation and with high degree of skill.
6. Adaptation - can modify action and skill to deal with problem situations.
7. Origination - creates new movement patterns to fit a particular situation or problem.

The levels of each domain are presented here not for memorization, but to illustrate the levels of ability that exist within each domain. Objectives cannot start at the highest level of the hierarchy without some preliminary work at the lower levels. A teacher should not expect his/her students to evaluate material they have neither read nor understood, just as one would not expect the child who is just beginning to walk to play a running game of football or demonstrate an original dance step. In forming objectives and observing students' performance, remember that failure to achieve an objective may indicate that an earlier objective was never met.

A look at key verbs that can be used to form objectives at each level of the three domains may help to clarify the differences between them. The chart on the next two pages is meant to supply the teacher with a series of verbs that are both observable and measurable. Finding these verbs is often the most difficult part of writing a clear and complete objective. If the teacher can refer to these lists on a regular basis, the writing of objectives should be that much easier.

Verbs to Use in Writing Objectives

The Cognitive Domain

1. KNOWLEDGE

Defines, Describes,
Identifies, Labels,
Lists, Matches, Names,
Outlines, Reproduces,
Selects, States

3. APPLICATION

Changes, Computes,
Demonstrates,
Discovers, Manipulates,
Modifies, Operates,
Predicts, Prepares,
Produces, Relates,
Shows, Solves, Uses

5. SYNTHESIS

Categorizes, combines,
compiles, Composes,
Creates, Devises,
Designs, Explains,
Generates, Modifies,
Organizes, Plans,
Rearranges,
Reconstructs, Relates,
Reorganizes, Revises,
Rewrites, Summarizes,
Tells, Writes.

2. COMPREHENSION

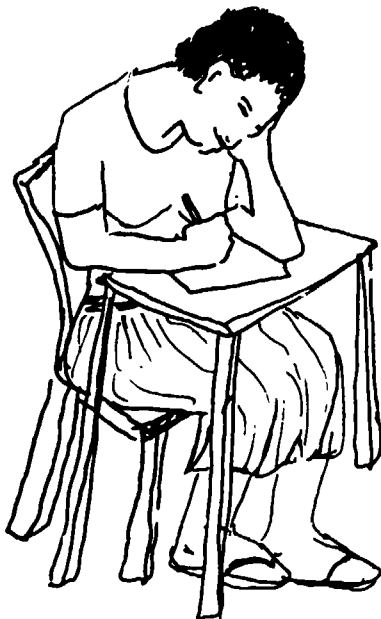
Converts, Defends,
Distinguishes,
Estimates, Explains,
Extends, Generalizes,
Gives examples, Infers,
paraphrases, Predicts,
Rewrites, Summarizes

4. ANALYSIS

Breaks down, Diagrams,
Differentiates,
Discriminates,
Distinguishes,
Identifies,
Illustrates, Infers,
Outlines, Points out,
Relates, Selects,
Separates, Subdivides

6. EVALUATION

Appraises, Compares,
Concludes, Contrasts,
Criticizes, Describes,
Discriminates,
Explains, Justifies,
Interprets, Relates,
Summarizes, Supports



The Affective Domain



1. RECEIVING

Asks, Chooses,
Describes, Follows,
Gives, Holds,
Identifies, Locates,
Names, Points to,
Selects, Sits Erect,
Replies, Uses

2. RESPONDING

Answers, Assists,
Complies, Conforms,
Discusses, Greets,
Helps, Labels,
Performs, Practices,
Presents, Reads,
Recites, Reports,
Selects, Tells, Writes

3. VALUING

Completes, Describes,
Differentiates,
Explains, Follows,
Forms, Initiates,
Invites, Joins,
Justifies, Proposes,
Reads, Reports,
Selects, Shares,
Studies, Works

4. ORGANIZATION

Adheres, Alters,
Arranges, Combines,
Compares, Completes,
Defends, Explains,
Generalizes,
Identifies, Integrates,
Modifies, Orders,
Organizes, Prepares,
Relates, Synthesizes

5. CHARACTERIZATION

Acts, Discriminates, Displays, Influences,
Listens, Modifies, Performs, Practices, Proposes,
Qualifies, Questions, Revises, Serves, Solves,
Uses, Verifies

Psychomotor Domain

1. PERCEPTION

Chooses, Describes,
Detects,
Differentiates,
Distinguishes,
Identifies, Isolates,
Relates, Selects,
Separates

2. SET

Begins, Displays,
Explains, Moves,
Proceeds, Reacts,
Responds, Shows,
Starts, Volunteers

6. ADAPTATION

Adapts, Alters,
Changes, Rearranges,
Reorganizes, Revises,
Varies

3 4 & 5. GUIDED RESPONSE, MECHANISM, COMPLEX OVERT BEHAVIOR

Assembles, Builds,
Calibrates, Constructs,
Dismantles, Displays,
Dissects, Fastens,
Fixes, Grinds, Heats,
Manipulates, Measures,
Mends, Mixes,
Organizes, Sketches,
Works

7. ORIGINATION

Arranges, Combines,
Composes, Constructs,
Creates, Designs,
Originates



If these verbs do not provide sufficient background for how to write objectives, then it is time to sit down, write a few objectives, and begin to see if they meet the three conditions of a complete objective. The teacher who writes objectives should always place them in the context of a specific subject, topic and level of student. For example:

Objective (with behavior, condition, & criteria)	Description of Objective
1. By the end of the lesson (condition), the student will be able to write (behavior) a two paragraph composition in English with fewer than eight mistakes (criteria).	Domain: cognitive Level: synthesis Time period: lesson
2. By the end of the school year (condition), the student will demonstrate his/her support of the reforestation project by organizing and implementing (behavior) a tree planting party with at least ten participants (criteria).	Domain: affective Level: organization Time period: school year
3. By the end of the unit (condition), the student will be able to calibrate (behavior) at least three pipettes (criteria) within a 30 minute lab period (criteria).	Domain: psychomotor Level: complex overt behavior Time period: unit

Avoiding Errors in Stating Objectives

Having the basic characteristics of objectives, an understanding of the domains and levels to be addressed and a supply of measurable and observable verbs, the teacher is ready to begin constructing his/her objectives. Considering the subject, context, aims and goals of a given unit, and the needs of the students, the teacher should be able to develop objectives which provide direction to a given unit. In doing this, however, it is important to avoid the many pitfalls that are commonly associated with objectives.

Below are listed five common errors in the stating of instructional objectives. (Note: the objectives provided as examples of correct objectives are incomplete and, if used in the context of a class session, need conditions and criteria in order to be complete).

1. A common error in stating instructional objectives is to describe teacher activities rather than student behavior.

- Wrong: The student will be exposed to the interrogative.
 Right: Given three statements, the student will be able to rephrase them in question form.

The first statement indicates what the teacher intends to present, while the second statement is written in terms of the expected outcomes.

2. A second common error in stating objectives is writing objectives in terms of learning process rather than learning product. For example:

The student will:

- Wrong: Gain knowledge of the difference between triangles.
 Right: Be able to construct three different triangles.

The first statement reflects a process of learning rather than an expected outcome of instruction. The second statement, however, clearly states the anticipated outcome.

3. The third common error in writing objectives is to list the subject matter to be covered instead of the learning outcomes.

The student will be able to:

- Wrong: Know the human respiratory system.
 Right: Diagram and label the human respiratory system.

The first statement consists of only a subject matter topic. There is no indication of a learning outcome. The second statement illustrates a clearly stated learning outcome.

4. The fourth common error in writing objectives is to write with covert behaviors which are internal and difficult to observe by another person rather than with overt behaviors, which are manifesting activities that can easily be evaluated by an observer.

The student will be able to:

- Wrong: Be concerned about the welfare of others.
 Right: Show concern for others by volunteering to help with food distribution.

Subject-Specific Verbs

As a final reference point, here are a few, subject-specific verbs that can be used in writing objectives.

LANGUAGE BEHAVIORS

Abbreviate, Accent,
 Alphabetize,
 Articulate, Call,
 Capitalize, Edit,
 Hyphenate, Indent,
 Outline, Print,
 Pronounce, Punctuate,
 Read, Recite, Say,
 Sign, Speak, Spell,
 State, Summarize,
 Syllabify, Tell,
 Translate, Verbalize,
 Whisper, Write

MATHEMATICAL BEHAVIORS

Add, Bisect,
 Calculate, Check,
 Compute, Count,
 Derive, Divide,
 Estimate, Extrapolate,
 Extract, Graph, Group,
 Integrate,
 Interpolate, Measure,
 Multiply, Number,
 Plot, Prove, Reduce,
 Solve, Square,
 Subtract, Tabulate,
 Tally, Verify

LAB SCIENCE BEHAVIORS

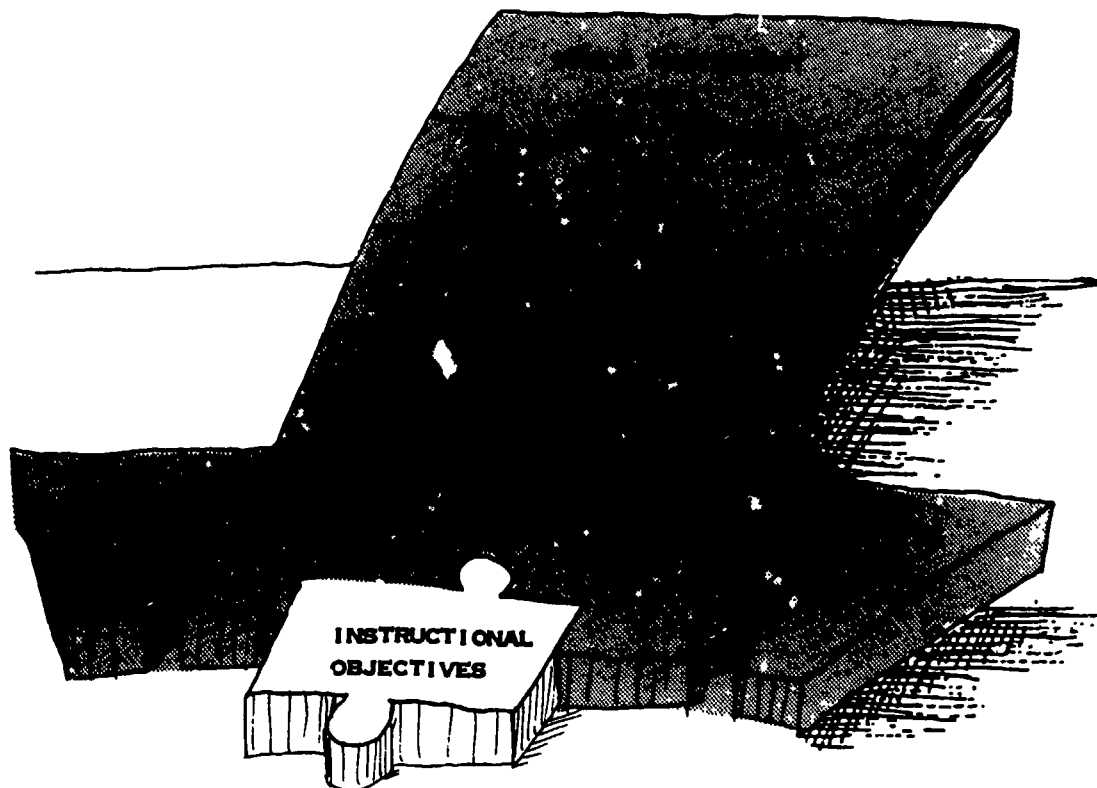
Apply, Calibrate,
 Conduct, Connect,
 Convert, Decrease,
 Demonstrate, Dissect,
 Feed, Grow, Increase,
 Insert, Keep,
 Lengthen, Limit,
 Manipulate, Operate,
 Plant, Prepare,
 Remove, Replace,
 Report, Reset, Set,
 Specify, Straighten,
 Time, Transfer, Weigh

In summary, an instructional objective is a description of what the teacher wants the students to attain or achieve by the end of a given time period. Instructional objectives are derived from curriculum aims and general goal statements and take into account learning styles, models of teaching and subject specific issues.

Well-stated instructional or behavioral objectives are not open to different interpretations. A good and useful objective uses concrete action verbs to describe what the learner will do, feel, and/or think after studying a unit or lesson. Instructional objectives are often the key to a clear and well organized lesson and a starting point for fair and accurate student assessment.

ACTIVITY BOX

1. Choose a topic and write three objectives, one for each of the three domains of learning: cognitive (knowledge), affective (attitude), and psychomotor (skill).
2. Examine each objective to make sure that they are complete (i.e. contain references to type of behavior, condition and criteria) and measurable and observable (i.e. use appropriate verbs).
3. Take the verbs listed in one of the three subject specific lists (language, math or lab science) and identify which domain and level of the domain the verb would fit. (Note: You may need to write a sample objective in order to complete this activity, since the verbs are only as detailed as the objectives).
4. Explain two ways of avoiding errors in writing instructional objectives using examples.

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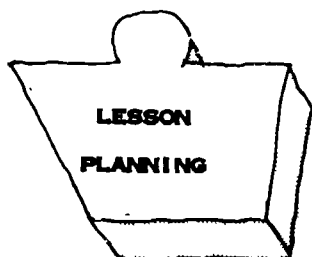
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LESSON PLANNING

LESSON PLANNING



Planning is one of the most important skills a teacher possesses; teachers who plan better, teach better. Each teacher has his or her own style of planning. Some make more extensive plans than others, but one thing is clear: There are few effective teachers who do not make written plans. In this section, teachers' collective opinions about planning as reflected in research studies will be examined. Key steps teachers follow during the planning process will also be described. The goal is to give teachers practical

information on how to plan daily lessons, sequence units, and choose the best plan from among alternatives.

Because it incorporates so many skills, planning is a complex and pivotal element of instruction. Teachers will find they need to refer to many other sections of this manual to create their lesson plans. They need to know how to diagnose student needs and learning preferences (**Child and Adolescent Learning**); write clear and concise instructional objectives (**Instructional Objectives**); choose teaching approaches to present content (**Approaches to Teaching**); know when and how to question students (**Classroom Teaching Techniques**); manage the classroom (**Classroom Management**); and evaluate the effectiveness of their instruction (**Student Assessment and Self-Evaluation**). Juggling so many factors at once may seem overwhelming to the new teacher. This is why careful planning of a lesson is so necessary, especially in the beginning. Learning to plan well is worth the effort. Many teachers find that, as their planning skills improve, their hours in the classroom become more comfortable and rewarding and their interactions with students improve.

What Teachers Say About Planning

Myths about exactly how teachers plan abound but, until recently, little research data were available about this process. Over the past ten years, however, a number of researchers have observed and interviewed many teachers from the United States to try to discover what makes an effective teacher in this particular cultural context. While some considerations are different for those working outside the United States, many apply to teaching in any formal education system. Some of these research findings are:

- There are five basic types of planning in which teachers regularly engage: yearly planning, long-term planning, unit planning, weekly planning, and daily planning.
- Since pupil attention and time-on-task behavior is associated with achievement, pupil involvement is one of the teachers' first considerations in planning.
- Experienced teachers recommend that beginning teachers write detailed lesson plans, particularly when working with new students, new subject matter, or new procedures.
- In planning curriculum, most teachers start by considering the context in which teaching will occur (e.g. the instructional materials and time available). Next, they think about the goals or general educational objectives (rather than specific instructional objectives). They then think about activities that will motivate pupils. Specific instructional objectives, rather than being created first, are often planned concurrently with the activities.
- Most teachers rely heavily on curriculum guides and textbook materials to determine the content and pace of their lessons.
- Teachers rarely change plans drastically in the middle of a lesson, but do take advantage of spontaneous questions which reinforce objectives.
- Soon after finishing a lesson, teachers plan how a lesson could be improved or varied the next time it is presented.

What's in a Plan

Most curriculum guides cite four key steps that are basic to any kind of lesson planning. They include:

Purpose

Many teachers begin with a brief general statement describing what the lesson or unit is about and then specify a list of sub-topics in outline form from which they write their objectives. Experience has shown that both teachers and students are more effective when they know what is expected.

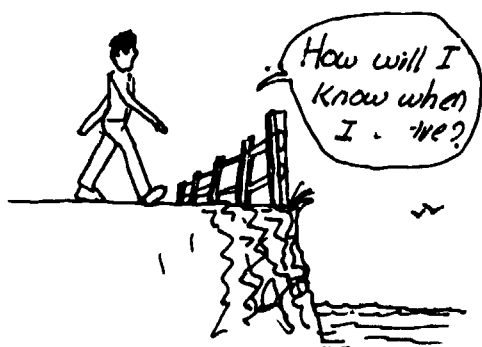


Finding Out Where Students Are

If the teacher has not worked with the group of students previously, it may be necessary to devise some form of formal pre-test to assess their level. Once an experienced teacher has worked with a group of students, she/he may be able to assess students' knowledge of the subject matter more informally. (See **Student Assessment** for specific suggestions).

Devising Instructional Procedures

Looking ahead allows teachers to incorporate variety into teaching strategies which introduce, explain and/or summarize a topic or subject. The level of specificity depends on the planning stage: yearly, unit, daily, etc. Suggestions follow on the next pages.



Assessment

Every plan includes provisions for measuring the extent to which the stated objectives were achieved, whether formally through tests or informally (see **Student Assessment** for more detail). In addition to assessing their students, many teachers write a self-assessment and note suggestions for next time.

Planning Daily Lessons

Most teachers incorporate some aspects of each of the following in every daily lesson:

- ° a brief review of the previous lesson(s),
- ° an introduction to the new lesson,
- ° a series of activities to that allow students to learn and practice the lesson content, and
- ° some form of closure or summing up of the lesson.

Introducing the Lesson

Anyone who has seen a play or watched a movie knows that the first few minutes are crucial for engaging the viewers' attention and setting the stage for events to come. Learning theorists have known for some time that it is important to create an organizing framework for ideas, principles or information to follow. Often telling the student in advance about what to expect enhances achievement. A good introduction:

- ° Focuses student attention on the presentation by employing an activity, event, object or person that relates directly to student interest or previous experience;
- ° Provides a structure or framework that enables the student to visualize the content or activities of the presentation;
- ° Assists in clarifying the goals of the lesson;
- ° Evaluates or reviews previously learned material before moving to new material;
- ° Provides a smooth transition from known material to new or unknown material by using examples, analogies and activities;

Learning Activities

The body of the lesson is usually built around an activity or series of activities which provide for explanation and practice of the new information. Most teachers use a variety of techniques in order to accommodate the learning styles of their students. When possible, they plan activities which address the cognitive, affective and psychomotor domains (see **Child and Adolescent Learning** and **Instructional Objectives** for

more detail). They also consider the balance between teacher and student centered activities.

One factor related to success of a lesson is time. It is important to learn how to gauge the approximate amount of time an activity requires. While a fast, lively pace is usually preferred, rushing through an activity can be traumatic for both the teacher and the student. Running out of material to teach before the class has finished can be equally unsettling. Teachers should list each sub-topic and write a time estimate next to it on the lesson plan. Writing down the sub-steps also helps the teacher make sure he/she has planned for all the materials needed to teach the lesson, so that valuable class time is not wasted on organizing materials or getting equipment.

Ending the Lesson

Just as the introduction helps students organize the information presented to them at the beginning of the lesson, the ending of the lesson, or closure, plays an important role in how much is retained. Closure:

- draws attention to the end of the lesson;
- helps organize student learning;
- consolidates or reinforces the major points which have been learned.

Too often teachers simply let a bell announcing the end of a class period serve as the end of the lesson. Creating opportunity for closure requires planning. Some closing activities ask students to summarize what they have learned; others give them a chance to practice their new skills, while others relate the material to a new situation. In any case, a good closing activity lets students know "when they have arrived" at the end of a lesson.

Writing a Lesson Plan

One of the most frequent requests of new teachers is for tips on how to format a written lesson plan. The next page gives an example of a lesson plan format. Teacher trainers may find it helpful to have new teachers use this format consistently for a few weeks before adapting their own style. By reviewing teachers' written plans, they can help them with pacing, content decisions and predicting what and how many materials will be needed. Teachers may also want to consult textbook guides, which often format lessons for teachers, to get further ideas. Bound lesson plan books are also sold commercially and may be available in some countries.



Lesson Plan Format

Subject: _____
 Topic: _____

Date: _____

Objectives: This tells what the students should be able to do by the end of the lesson. Each objective should be written in behavioral terms; when possible affective and psychomotor objectives should be included as well as cognitive ones.

Time	Activity/Procedures	Materials
Write an estimate of the time required for step.	The procedures required to teach the activity should be described here in outline form. Be sure to include both what the teacher will do and what the students do. Make provision for review, introductions, practice activities, and a closing closing activity.	Include a list of all equipment and materials needed, how much, how many and preparations which must be done before class.

Evaluation: How will you know that the students have accomplished your objectives? Write down the formal or informal method of assessment you plan to use.

Comments: How would you do the lesson differently next time. What are special points to remember? Is one activity particularly effective?

Sequencing and Long-Range Planning

Although many of the same skills needed for daily lesson planning go into long-range plans for a unit, a semester, or a year, such planning also requires that more attention be given to sequencing. Careful sequencing builds a strong foundation for students' understanding of the relationship between complex parts of one subject. In planning a unit a teacher should write down the:

Topic: What the unit is about.

Goal: A broad goal statement for the unit as a whole.

Objectives: General student performance that will demonstrate learning.

Time: Number of days/hours available for the unit.

Activities: A brief description of activities for each day and week.

Materials: Any equipment or materials which needs to be procured or made ahead of time.

In long-range planning, the sequencing and ordering of material to be presented is even more important. Sequences may be created based on different characteristics, such as time, complexity or internal order. The sequence chosen may depend on the teaching approach used. A teacher using the Advance Organizer approach to the teaching of botany, for example, may first present a chart of the plant family and then, in subsequent lessons, describe each branch. Another teacher might use the discovery method and have students conduct experiments for several days before lecturing about the content. For some skills, like building a house, a relatively invariable sequence may have to be observed. One must lay the foundation and put up the skeletal framework before the walls can be constructed.

Sequencing of ideas or skills can be done in many ways and what is a logical sequence in one culture may not be to another. A Teacher Trainer might consider asking host country colleagues to describe and contrast their organizing systems with those of Western educators. An analysis of lesson planning in the cross-cultural setting should also take into account social customs, habits and taboos.



Types of Sequencing Systems Include:

- From shorter to longer activities.
- From skills of observing, recalling or comprehending to skills of creating.
- From familiar to unfamiliar ideas.
- From easy-to-organize to difficult-to-organize activities.
- From simple to complex ideas.
- From convergent to divergent thinking skills.
- From teacher-directed to student-directed activity.
- From abstract concepts to concrete situations.
- From a concrete situation to abstract ideas.

Planning ahead for long-range activities allows teachers to consider the strengths and weaknesses of different types of sequences and select the most effective one for their needs. In many school systems there may be little room to vary the curriculum, since it is pre-determined by national ministries of education. Varying too much from their sequence, even if permitted, may jeopardize students' ability to cover all the material asked for on standardized tests which allow them to pass from one grade to the next. Fellow teachers and students are often resistant to changing the curriculum in any way. It is suggested, in these cases, that the teacher try making more modest changes in daily or weekly plans, making sure the necessary material is covered even if the order is changed and allowing the students to learn the merits of new approaches gradually, through practice.

Choosing from Alternatives

One of the best ways to increase one's repertoire of teaching skills is to plan and teach two alternative lessons on the same topic. Alternative lessons might utilize different skills or use different models to teach the same general content. A single teacher could plan two alternative models. Or, two different teachers could each plan the same lesson independently and share their plans with one another. Teachers might consider the following questions when comparing their plans:

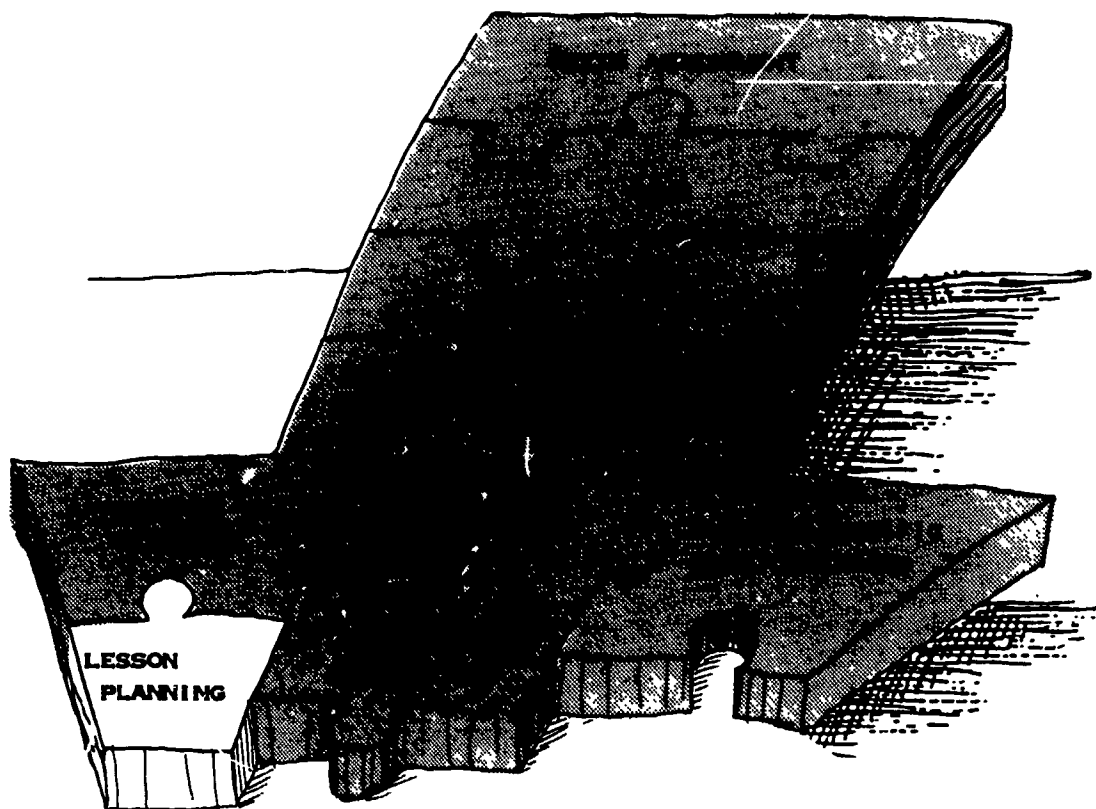
- Which skills are practiced in this lesson?
- Do students receive group or individual practice in use of these skills?
- What instructional materials are used?
- Is there any provision for student ideas?
- Is there any provision for individual differences?
- Is there provision for written feedback to the teacher about what students have learned? What other ways will the teacher evaluate what has been learned?

Teachers may find it useful for one teacher to teach two similar groups of students, using a different plan for each group. The second teacher can observe both lessons and record his or her observations. When both lessons are finished, they can discuss the results of the observation to decide whether or not the lessons were as different as they had originally thought and whether they prefer one model over the other.

This method may be an especially useful tool in schools where most teachers use only one method (usually a highly teacher-centered, lecture-oriented method). By comparing lesson plans, teachers may learn that there are indeed other ways to teach the same objectives without compromising the content that their school system obliges them to cover.

ACTIVITY BOX

1. Design three different ways to open or introduce the same lesson: one for a sleepy group of students, one for a high energy group of students and one for a group of students you have never taught before.
2. Design a unit plan and three sample lesson plans for a subject of your choice. Use the lesson plan format suggested to complete your lessons.
3. Talk to another teacher who is teaching the same topic and level as you. Compare and contrast your lesson plans for the same session.

**References:**

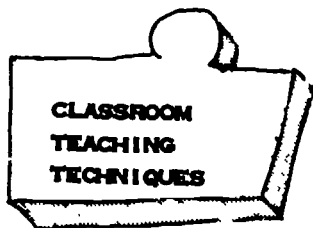
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CLASSROOM TEACHING TECHNIQUES _____

CLASSROOM TEACHING TECHNIQUES



As discussed in the previous section, lesson planning involves the careful balancing of a wide range of variables. One of these variables is the use of classroom teaching techniques. The lesson plan below demonstrates how a variety of teaching techniques can be used in an hour long lesson and introduces some of the techniques discussed in this section.

Subject: <u>English (as a Foreign Language)</u>		
Topic: <u>Body parts and clothing</u>		Time: <u>1 hour</u>
Objectives: By the end of the lesson students should be able to: <ol style="list-style-type: none"> 1. properly name ten parts of the body. 2. properly name five articles of clothing. 3. use the verbs "put on" and "take off" correctly. 		
Time	Activity/Procedures	Materials
5 min.	Question/Answer: Review of items one buys at the store.	Items one buys in a store (taught in previous lesson).
10 min.	Presentation/Drill: Clothing (shirt, pants, shoes, socks, hat); parts of the body.	Articles of clothing, blackboard, chalk.
5 min.	Game: <u>Simon Says</u> (touch your toe, ear . . .).	None
15 min.	Presentation/Drill: "Put on," "take off".	Flash cards
10 min.	Presentation: Dialogue or story about buying clothes.	Prepared text on sheets of paper, visual aid, or in textbooks.
10 min.	Improvised Skits: Buying clothes. Students play roles of merchant and customers.	Play money, clothing.
5 min.	Copying notes from the lesson (where texts are not available).	Notebooks and pens/pencils.
Evaluation: Oral feedback during question/response activity and assessing student performance during skit activity.		
Comments:		

Teacher-Centered and Student-Centered Techniques

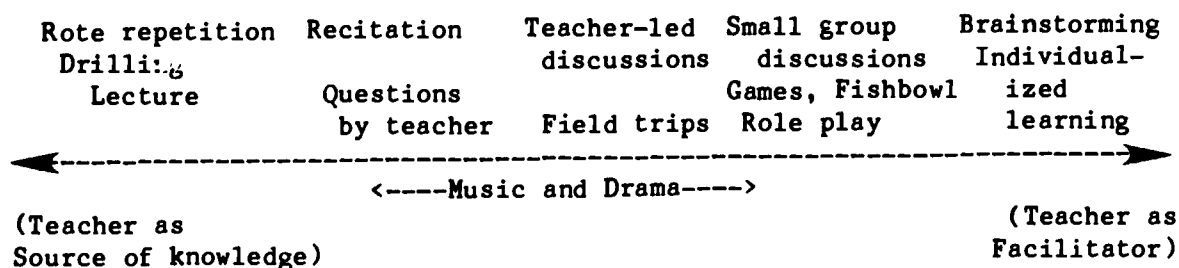
In many classrooms, the teacher relies heavily on the traditional methods of lecture, recitation from the textbook, and rote repetition. These are classified as "teacher-centered" instruction because they are based on a model of the teacher (usually with a text) as the holder and transmitter of knowledge and the students as passive receivers of that knowledge. In many countries this model has been abandoned by education specialists in favor of a "student-centered" approach.

The student-centered model includes a variety of techniques aimed at active student participation and experiential learning. Often the teacher acts as a guide or facilitator for the activity rather than the dispenser of knowledge. Some of the techniques which we will examine are small groups, brainstorming, role play, games and simulations, individualized learning, student presentations, and dramatic activities. Some of these methods have been describe in the **Training Techniques** section.

The classroom is rarely totally teacher- or student-centered, but rather somewhere on a continuum between these two models. The diagram below places each of the techniques described in this section on such a continuum:

TEACHER-CENTERED

STUDENT-CENTERED



Different techniques can be utilized to complement each other, providing a variety of learning experiences and modes of interaction. In situations where there is a syllabus and/or textbook which the teacher must follow, regular lectures and recitations may be expected. But often other activities can be added to supplement the standard lesson format.

Teacher-Centered Techniques

The Lecture Method

The purpose of the lecture method is to present basic facts or concepts to a relatively large group of students. It is useful in explaining difficult or complex concepts before students engage in an activity (such as an experiment) or read a text. The lecture may also be effective after an introductory activity or demonstration has captured students' attention and sparked their curiosity. Ideally, the lecture is illustrated with visual aids, a model, or a demonstration and includes student participation in some way. With younger students especially, the teacher should avoid talking for a long period without involving students actively.

Teachers should be careful not to confuse the classroom lecture method discussed here with what they may have experienced in their college studies. The lecture as a teaching tool should be more than a talk about the subject matter or a reading or restatement of a portion of the text. The teacher should plan the presentation well to maximize student interest and learning, practice good delivery skills, and use questions and discussion to reinforce the key concepts. Here are some suggestions for more effective presentations:

1. Preparation

- Outline main points and organize in orderly way.
- Plan examples and illustrations.
- List key questions or other ways to involve students.
- Prepare handouts that assist students in listening or note-taking.
- Prepare visual aids.
- Plan timing to allow for questions and discussion.
- Keep presentation as brief as possible.
- Prepare notes for reference, but not to be read.

2. Introduction

- Outline main points on blackboard (especially if students are expected to take notes).
- Generate interest from the beginning: use an attention-getter or thought-provoker (picture, question, story, simple puzzle, exercise).

3. Delivery

- Maintain eye contact with different students.
- Vary voice, facial expressions, gestures, and positions.
- Use humor and surprise.

- Illustrate main points with concrete examples, analogies, and stories.
- Use non-verbal stimuli and illustrations: pictures, models, props, symbols, and gestures.
- Involve students by soliciting questions, examples, and responses.
- Weave in provocative questions and rhetorical questions.
- Check on student comprehension at intervals during talk.
- Repeat and reinforce key words and main points.
- Use silence and pauses for emphasis and to stimulate thought.
- Try using the indirect method by giving false statements or by using faulty reasoning to allow student correction (but use this strategy sparingly and keep it at a simple level).

4. Summary

- End before students' attention is lost.
- Repeat main points.
-or-
- Guide students to summarize main points.
- Leave some unanswered questions for students to ponder or discuss.

5. Question/Answer Period and Discussion

- Solicit and respond positively to student questions.
- Redirect questions for other students to answer.
- Structure small group discussion with problem to solve or questions to answer.

Question and Answer

Almost any teaching model requires the use of questioning. Questions are powerful teaching tools for stimulating thought and checking student comprehension. They also can be used to encourage quiet students to participate, to promote interest in a topic, and to spark discussion. As in recitation, students' responses will also tell the teacher much about the success of the teaching plan in meeting the objectives. Finally, a question and answer activity can increase motivation and provide variation from more passive forms of learning such as listening, reading, and written exercises.

The teacher should have a repertoire of various kinds of questions which can elicit different kinds and levels of thinking. Although there are many ways to categorize questions, we shall use four major groups:

Direct: Asks for recall of facts and description from memory.
(Convergent)

- Probing:** Follow-up question for clarification, expansion, justification, or to redirect response.
- Higher Order:** Asks for analysis, evaluation, problem-solving, comparison, cause and effect, or inference.
- Divergent:** Asks for opinion, judgment, or interpretations.

Direct questions are questions which require factual recall. Most teacher-posed questions are of this type. Here are some examples:

- | | |
|---|------------------|
| Is the English word for "livre" <u>student</u> ? | (yes/no form) |
| Did Faraday or Edison discover <u>electricity</u> ? | (either/or form) |
| What is the formula for the area of a circle? | (wh-word form) |
| Where are the kidneys located? | (wh-word form) |

While these questions may indicate student recall from the reading or class activity, little independent thinking is required, and the student may or may not understand the answer she/he is giving. Direct questions are "closed" - usually there is only one correct response. Direct questions are useful, but they should be combined with other types of questions.

In the examples above, you may have noticed three forms which questions can take: **yes/no**, **either/or** and **wh-word**. The teacher should note that yes/no and either/or questions are highly structured and usually have only one possible correct response. While they may be useful to check student comprehension and learning (especially on a written quiz), they do not allow much opportunity for the student to express what he or she is thinking. Teachers should try to mix these forms of questions with the more open wh-word form.

Probing questions are used to follow up an unsatisfactory or incomplete student response by asking the same student or others to think more deeply and improve the response. Some examples are:

- | | |
|--|-----------------|
| What do you mean by _____? | (clarification) |
| Could you say that in another way? | (restatement) |
| Yes, but why? | (justification) |
| Could you say more about that? | (expansion) |
| Jose, what do <u>you</u> think about that? | (redirection) |

Non-verbal probes such as a nod, a smile, or a gesture and short verbal probes such as "Yes," "I see," "Uh-huh," can also encourage students to say more or rethink their responses.

Higher order questions are analysis questions which require more abstract or conceptual thinking. They challenge the student and are more open-ended than direct questions. While based on factual knowledge, the responses involve critical thinking and analysis. Here are some examples of different types of higher order questions:

What do you like about this poem and why?	(evaluation)
What evidence can you give that the earth is round?	(inductive inference)
What conclusion can you draw from your observations?	(deductive inference)
How would you find the area of this figure?	(problem solving)
What makes a balloon expand?	(cause-effect)

Notice that the **wh**-word form is common in higher order questions because these questions often ask **why, what, and how**.

Divergent questions ask students to express opinions, make judgments, and offer interpretations. Because they are open-ended questions with many possible answers and no right or wrong, they can stimulate the imagination. Divergent questions are especially useful in language classes learning creative writing and discussing literature.

What is your reaction to _____?
 What is your opinion, Mohammed?
 What would the earth be like without trees?

Mastering the skill of questioning, as with other skills, requires practice. Here are some suggestions for effective questioning techniques:

-
- Organize students in U-shape or circle if possible.
 - Scatter questions widely around the class with alternating response patterns: (individual, row, whole class, etc.).
 - Encourage responses by giving some positive reinforcement for all responses, including incorrect ones. Use verbal and non-verbal means to show degree of approval (nod, smile, writing answer on board...).
 - If a student gives an incorrect or incomplete response, restate the question or give a hint and allow him/her to try again.
 - Model listening behavior - listen attentively to all responses.
 - Maintain eye contact during question and answer.
 - Allow time for thought and response. Pause after the question.
 - Keep questions short, clear, and focused.
 - Base questions on experiences, inferences, and other sources in addition to text.
 - Use questions that require thought, mixing provocative higher-order questions with factual ones.
 - Mix questions requiring objective and subjective responses.
 - Ask for several responses to open-ended questions.
 - If necessary, restate correct responses so that other students hear clearly.
 - Offer prompts or hints or rephrase your question if students have trouble giving a good response.
 - Redirect and probe to involve more students and stimulate peer learning.

- Use probing questions to encourage deeper thinking and improved responses.
- Try asking questions for which you do not have the answer.
- In language classes, have whole class repeat the student response for practice. Model questions and allow students to ask each other.

Recitation and Drill

Recitation is a traditional technique in which the teacher or student reading of question from the text and the students recite answers which they find in the textbook or have memorized. Because recitation involves rote answers and repetition of answers from the text, overuse can produce monotony and boredom in the classroom.

Drill is a technique to aid in memorization and pattern learning in which the teacher asks short questions or gives cues and students respond. It is frequently used in language classes for pattern and vocabulary practice. Most language textbooks include pattern drills which range from simple repetition to transformation and translation drills. Drills are usually structured so that students are mostly able to give the correct response quickly. While the teacher usually provides cues and indicates whether the response is correct, students can drill each other in pairs or small groups. Visual or taped cues can be used to add variety to drill exercises.

The chart below shows eight major types of drill commonly used in language teaching.

type of drill	examples
repetition	cue: She told me about the book. response: She told me about the book.
substitution	cue: She told me a story. <u>him</u> response: She told him a story.
correlation	cue: He is going home. <u>they</u> response: They are going home.
transformation	cue: We saw the movie. <u>negative</u> response: We didn't see the movie.
joining sentences	cue: They're happy. She's coming home. response: They're happy that she's coming home.
rejoinder	cue: I have a brother. What's his name? <u>I have a sister.</u> response: What's her name?

expansion	cue: She told me about a book. <u>good</u> response: She told me about a good book.
translation	cue: J'ai lu un livre. response: I read a book.

Although drilling is most widely used in language classes, it has other applications where memory is required. For example, mathematics teachers might use a drill for aiding student memory of multiplication tables. Since drilling also involves much repetition and structured response, it should be alternated with other techniques. Generally, recitation and drilling should not exceed five minutes.

Student-Centered Techniques

The seven student-centered classroom techniques which follow are discussed in greater detail in Chapter 1, **Training Techniques**. What follows here is a short description of each technique and a some examples of possible classroom and subject-specific applications.

Small Group Formation

As was discussed in the section on **Child and Adolescent Learning**, breaking up a class into groups immediately multiplies the amount of student activity and participation. The advantages in using small group formations are numerous and, though they may require a special management style, group work can be used to the benefit of both student and teacher alike.

Considerations in Forming Groups

Groups need not always engage in the same activity. The teacher can structure groups according to ability, needs, specific skills, or interests. Groups can be assigned special activities and the teachers can devote time to specific student needs and interests which would be impossible to address with the whole class. While the teacher is working with one group, other groups might be working on a group project, playing a game, solving a problem, or working on individual projects. For debates and contests, the class can split into two groups. If these groups are still too large for student interaction, try four or more groups. For discussion and projects, five or six students per group usually is an ideal number, but this depends on both the activity and the students.

Subject-Specific Applications

In science classes, groups might conduct experiments or make observations; in language classes groups might write and act out a skit, play a word game, or have a structured discussion. Math students might play number games or work out problems individually, in pairs or in small groups.

After a presentation by the teacher or a text reading, the class can form small discussion groups to address questions chosen by the class or the teacher. One way of organizing these groups is to give each student a role in the group: discussion leader, recorder, timekeeper, reporter, and process observer. Following discussion the class re-groups, and the reporter from each group makes a short summary of his/her group's conclusions.

Pairs (also called "diads") are especially suitable for language practice, mini-debates in social studies, and peer quizzing in any subject area (see the **Training Techniques** section for a more detailed discussion of diads and triads).

General Suggestions for Small Group Interaction:

- If possible, move chairs into small circles (if chairs cannot be moved, use the floor, outdoors, squat, or stand).
- Make activity clear before class breaks into groups.
- Teacher can travel from group to group as facilitator.
- Mix up groups for different activities.
- Discuss small group process with students. Encourage participation, listening, cooperation, and helping.
- Alternate small group with whole class activities.

In certain cases, small group activities may be difficult to implement because of the physical limitations of the classroom and expectations of more traditional teaching methods. The teacher should, as with all new methods, introduce the use of small groups gradually and with care.

Brainstorm

Brainstorming is an excellent way to stimulate children's imagination and creativity. As an activity to generate ideas and suggestions from students with maximum participation and minimum risk, it might be used to generate possible topics for writing, a list of random numbers, situations for a role play, ideas for independent projects or words for a language lesson.

Role Play

Role playing is not only a powerful tool for adult education and teacher training, but also is effective in the classroom. Role playing is especially suitable for language and social studies classes. Role playing is a highly motivating activity because students can learn through experience and apply their learning in a relevant, yet relaxed, low-risk situation. It can help to promote student-student interaction, encourage empathy for others, and develop social skills and values.

In language classes, the teacher can use the role play to reinforce patterns and vocabulary, to place language in cultural contexts, and to encourage students to use the language creatively. The teacher should first prepare the class with the basic vocabulary and patterns which the role play will require.

In sciences and math, abstract, dry concepts can be given personality, humor and life through role plays (interaction of atoms and molecules, variations in geometric forms, etc.) and historical figures can bring scientific and mathematical debates to life in the classroom.

Games and Simulations

Games and simulations have much in common with role playing in terms of increasing motivation, student participation, and interaction.

A game is any learning activity with rules, competition, winners and losers. The players learn while playing the game, and may use their knowledge in some way to win the game. Games can be adapted to reduce competition and encourage cooperation by having rotating teams or changing the game's objective. Games are frequently used for language and mathematics practice, but can be adapted for any subject.

A simulation is a learning activity that is designed to reflect a real situation or system. Simplified simulations can be designed by teachers to help students understand other cultures, societies, and historical periods.

Although many learning games and simulations are produced commercially, for use in non-Western settings, they are best produced by the teacher to suit the particular students, the culture, and curriculum at hand. Look for games that are played in the community where you are teaching and try to adapt them to the learning goals. In this way the students will be familiar with the rules and method of play. Games are best suited for introducing a new unit to capture interest or as a final experience to put learning in perspective.

Games should be structured to maximize participation and learning. If competition becomes too important losers may lose interest and the

learning goals may be lost. In cultures where competition is not valued, the teacher should look for ways to decrease competition (use of teams, rotation of members among teams, etc.) or eliminate it altogether. It is important to plan time after the game or simulation for discussion of the key concepts and students' experiences and questions. (For more step by step information on how to develop and use games and simulations, see David R. Evans' book: Games and Simulations).

Drama and Music

Drama and music are highly motivating activities for students of all ages. They also provide variety in lesson plans for teacher and student alike.

Dramatic activities include skits, structured improvisation, free improvisation and full scale plays. They are most useful in language classes. Students unaccustomed to improvisation should first be given more highly structured roles and situations such as those previously discussed under role play. Written skits are also a good way to begin using drama in the classroom. After students have become comfortable with their roles in the skits, they can be encouraged to make changes in their lines, which will lead to freer improvisation. (For some excellent suggestions on using drama in the language classroom, see Maley and Duff in the reference section.)

Music and songs are excellent methods to involve students and introduce cultural aspects. New words to popular songs can be written by the language teacher to reinforce patterns and vocabulary. Folk and popular songs can be taught in social studies and language classes to add a cultural dimension.

Field Trips

Field trips help link the real world to the classroom, show how studies can be applied and bridge the gap between classroom and community. Appropriate field trips can be planned for any subject. Science classes can conduct observations of nature and collect specimens, social studies classes can engage in local community investigations and interview members of the community, and mathematics classes can measure and time any number of objects or events. For the foreign teacher, a field trip may be a way for the teacher to learn from his/her own students. Such mutual learning is an excellent way to develop a positive relationship between students and teacher.

Individualized Learning and Student Projects

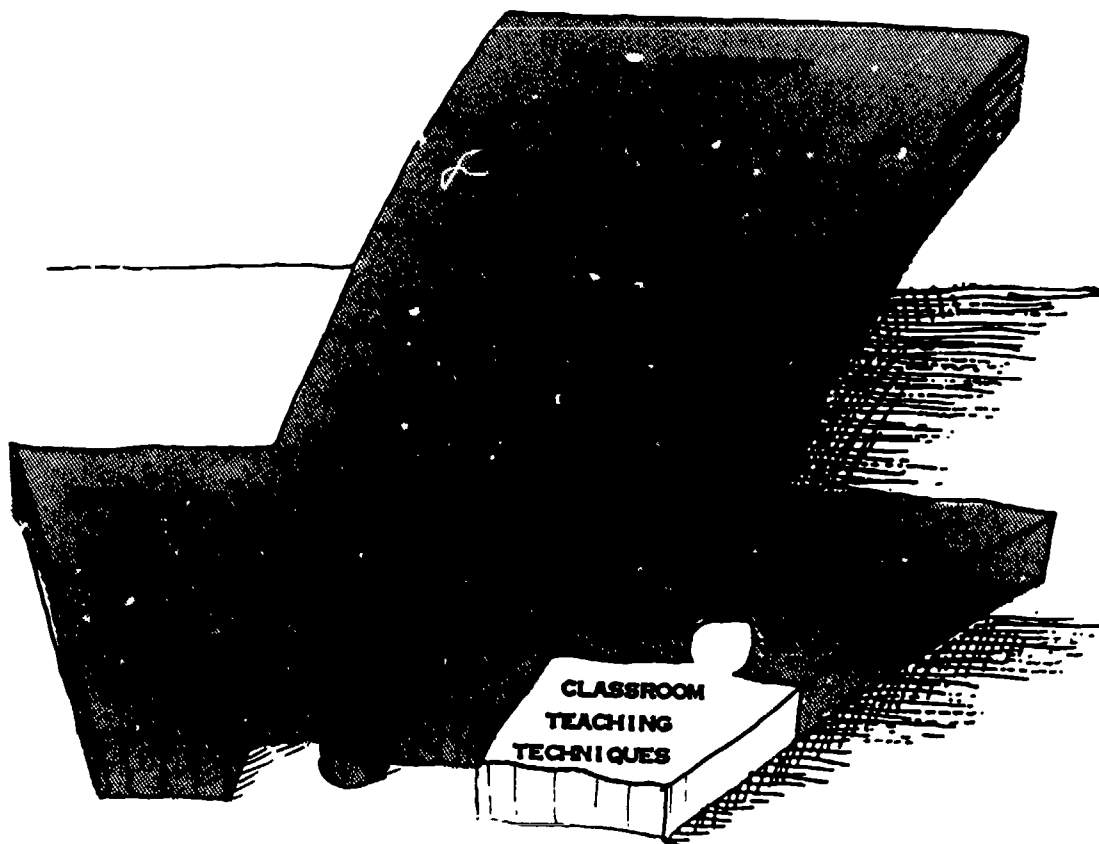
Individualized learning is an approach which can help to solve the problems of teaching a mixed-ability group, students with individual learning difficulties, or students with special interests. By setting up self-contained units for individuals to follow, the teacher allows individual students to learn at their own pace and to pursue their own interests.

Individualized learning can take many forms, but most involve packages or short activities for students to follow. Each activity has directions and objectives. Often a self-test or self-check is included. Some packages may be a series of sequential activities with problems, solutions, and multiple-choice tests at each stage. This is sometimes referred to as "programmed learning" and is also being developed for computer-assisted instruction. Remedial units can be developed for students with special learning problems and advanced units for those who are learning at a higher level than others in the class. The advantage of individualized learning is that these students do not need to be labeled or taken away from the class. Remedial learning can also benefit from the pair group formation, using peer instruction.

Individual projects designed by students with the guidance of the teacher is another form of individual learning. In science classes, this may be an excellent way for students to learn research and lab skills. Interrelated units can be studied by groups of students who, in the process, learn library, writing, presentation and even testing skills. Independent projects allow students to pursue their own interest and share them with other students during class presentations. An additional benefit is that projects often bridge several disciplines, for example, a project on Louis Pasteur might combine information from the sciences, French, and social studies.

ACTIVITY BOX

1. Design an idea for a learning game. Consider your topic and describe the number of players, object of the game, learning goals, materials needed, etc.
2. Write three questions of each type (direct, probing, higher order and divergent) for a specific lesson and topic of your choice.
3. Think of a lesson for which a role play might be appropriate. Write each role description on a note card and two to three different settings/situations for the roles to be enacted.



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Evans, David R. Games and Simulations in Literacy Training. Tehran: Hulton Educational Publications, Ltd. and the International Institute for Adult Literacy Methods, 1979. (Available from the Center for International Education, Amherst, MA)

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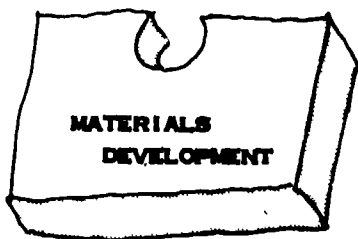
Maley, Alan, and Alan Duff, Drama Techniques in Language Learning. Cambridge: Cambridge University Press, 1982. 2nd edition.

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MATERIALS DEVELOPMENT AND RESOURCE UTILIZATION

MATERIALS DEVELOPMENT AND RESOURCE UTILIZATION



During the course of a year, in just about any subject, the time comes when the teacher needs to use something other than his or her own voice and gestures to present course content. To most people educated in Western industrialized nations, this statement may seem all too obvious. In the context of many developing countries, however, audiovisual aids and materials are often unavailable and the teacher is left with two choices:

1. To rely on simple materials which may be produced either by the teacher or a local facility; or
2. To adapt materials which may have been produced for a different country or even a different, if related, subject.

For the most part, instructional materials in the classrooms of Third World countries are limited to blackboard, chalk, paper, pencil and, in the more fortunate cases, textbooks.

Even so, there is a great deal that the individual teacher can do in this context to enhance his/her delivery of instruction. This section discusses the ways in which teachers, with limited raw materials and supplies, can produce valuable instructional materials. This section will also address proper presentation procedures for the introduction of visual aids in the classroom and considerations about the appropriate use of certain teaching aids.

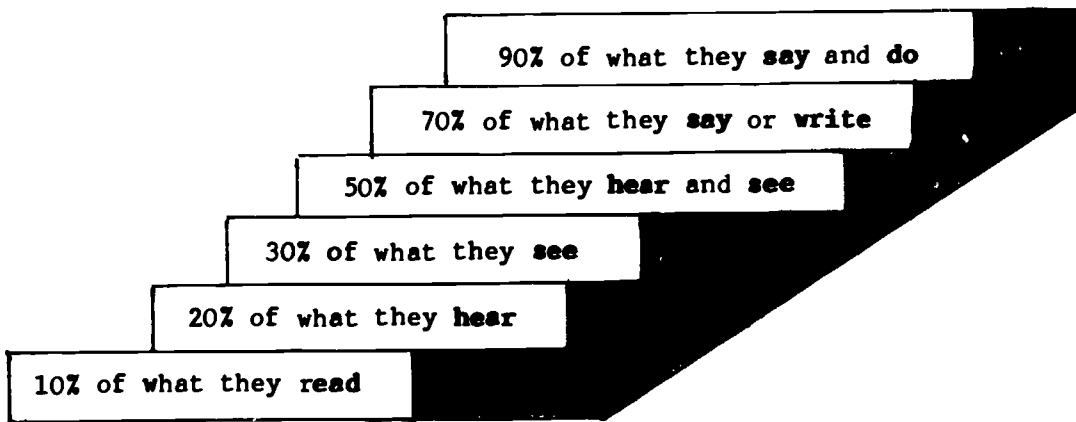
Instructional Materials and the Learning Process

Two basic principles should be considered when using instructional materials:

1. Teachers, whether poorly trained or highly competent, remain the most influential part of the learning process. (Materials merely assist in the instructional process; the teacher provides the primary source of direction in learning.)

2. The amount of information a student retains is directly related to how that material is presented. This concept can be presented as a series of steps leading to the greatest retention of knowledge:

What People Remember



Materials used in education can be categorized by the type of information they contain and which of the senses are required to make use of that information:

Written materials (sight) such as texts or readers provide detailed information through the use of the written word.

Visual aids (sight) provide graphic and/or written information which usually supplements an oral presentation (hearing).

Audio tapes and records (hearing) provide information through the spoken word (and may or may not be used with other types of materials).

Film, slide/tape, and videotapes (sight and hearing) use visual, audible and written means to present information.

Real Objects and Models (touch/kinesthetic) coordinates visual presentation with touch to present information.

It is the teacher's responsibility to decide which types of materials are appropriate for which types of learning activities. The table on the following page, based on a media selection model by William Allen at the University of Southern California, should help the teacher with this decision. It provides information as to how certain instructional media relate to specific learning objectives.

<i>Instructional Media Type</i>	<i>Learning Objectives</i>					
	<i>Learning Factual Information</i>	<i>Learning Visual Identifications</i>	<i>Learning Principles, Concepts, and Rules</i>	<i>Learning Procedures</i>	<i>Performing Skilled Perceptual- Motor Acts</i>	<i>Developing Desirable Attitudes, Opinions, and Motivations</i>
Still pictures	Medium	HIGH	Medium	Medium	low	low
Motion pictures	Medium	HIGH	HIGH	HIGH	Medium	Medium
Television	Medium	Medium	HIGH	Medium	low	Medium
3-D objects	low	HIGH	low	low	low	low
Audio recordings	Medium	low	low	Medium	low	Medium
Programmed Instruction	Medium	Medium	Medium	HIGH	low	Medium
Demonstration	low	Medium	low	HIGH	Medium	Medium
Printed textbooks	Medium	low	Medium	Medium	low	Medium
Oral presentation	Medium	low	Medium	Medium	low	Medium

Source: "Media Stimuli and Types of Learning." *Audiovisual Instruction*. Reprinted by permission of Association for Educational Communications and Technology. Copyright 1967.

Allen Media-Selection Model

Based on this information it is easy to see the advantages of using instructional materials in the classroom and how each type of material triggers certain senses and supports certain types of objectives and lessons more than others. The teacher must examine the content of the course and choose the appropriate way of presenting the information in order to maximize both instructional and learning processes (see **Child and Adolescent Learning**). The relative success that he/she has in doing this, of course, will depend on how available certain materials are. Teachers who believe that there are virtually no materials or supplies available should not despair. This section of the manual will help them to realize that many useful instructional materials can be located or, if necessary, produced using low cost materials and supplies in their immediate environment. The first step towards providing materials for the instructional setting is in determining what is and - probably most important - what is not available.

Using What is Available

Before deciding on which types of materials are appropriate for a given lesson, the teacher must locate which materials, if any, are at his/her disposal. Most often, and for just about all subjects, the only real materials present in the classroom will be a blackboard and possibly some chalk. In many cases these too may be unavailable. In each case the **needs** of the teacher must be weighed against what is **available**.

Needs: Reviewing unit and lesson plans will give the teacher some indication of the types of materials required. Whether based on a chapter, a section out of a text or a lab exercise, the teacher should review his/her plan and make a list of what materials are needed so that they can be located before the lesson(s) begin.

Availability: If the teacher is developing the curriculum, the design should either require materials which can be easily obtained or allow sufficient time to acquire the special materials and supplies needed. As acquiring materials from abroad is both time consuming and often too costly to consider, the teacher should consider using local materials to replicate instructional materials they might otherwise try to order.

The level of education being taught may affect the availability resources. The primary school teacher may have fewer instructional materials to work with than the secondary school teacher. Materials are often distributed from a central storehouse to schools or to individuals responsible for local distribution. The distribution route should be understood so that materials can be located and reviewed before the instructional process begins. Many cases exist where teachers have gone through one or two years of teaching with inadequate or no texts and materials only to find that better material was available in a government storehouse - only they did not know it.

Developing a list of materials already available in country for a particular content area can provide a good start for the teacher. Making such a list, categorized according to both type and location of materials, can help the teacher to take stock of his/her resources.

ACTIVITY BOX

Take a minute and think of all the materials you might need for a given unit. Stretch your imagination to include unconventional materials (buckets, batteries - etc.

MATERIALS INVENTORY

Subject: _____

Item:	Type:	Description:	Source/Location:
1.			
2.			
3.			
4.			

Several types of instructional aids are traditionally associated with the classroom. Textbooks, other printed materials, radio programs, audio visual media, and human resources are all, to a greater or lesser extent, available to the creative teacher wishing to develop an interesting curriculum, spiced with variety. Each of these instructional aids has its own set of planning and e considerations for the teacher.

Textbooks

Some schools, particularly in urban areas, require students to buy texts from private suppliers who have an agreement with the education department. Teachers should be aware of which students are able to buy their own material and which are not. In certain cases, the government provides some financial support to students in need of buying their own required books and other materials. Supplies such as pencils and paper, notebooks and erasers are generally not supplied by the educational system and are purchased individually by the student in the market, if available. Many countries supplement their textbook needs, particularly in secondary education, with donated texts from European or American sources. These texts are usually donated by a school district, library or even a major publisher for various reasons (they are outdated, damaged in a warehouse fire or in shipping, or they do not meet market standards in quality). The teacher should ask library and/or administrative or ministry personnel about such supply schemes and contact suppliers

directly for texts in their subject areas. For example, book distributors such as the Ranfurley Library Service in Great Britain collect withdrawn and discarded library and school books for shipment to developing countries in the British Commonwealth.

While many textbooks, originating in countries other than where they are being used, can be helpful to the teacher who is preparing a lesson or unit, he/she should be aware that they are often inappropriate or too culture bound to use as a direct guide. Science and math texts, which can often be used as direct references, are more universally useful than texts from the humanities and the liberal arts. Cultural and geographic references found in donated books from England, France or the United States are often not appropriate in the teaching context of Africa, Asia or Latin America. If the teacher chooses to use the lesson format found in these materials they will need to adapt the specific content information presented to reflect the local situation.

Instructional Media

Print media include all texts, booklets, charts, maps and newspapers. Some countries have facilities for producing limited numbers of supplemental materials. Using these facilities and understanding their limitations and requirements are important skills for teachers. Some of these skills include:

- Being familiar with what the production facility is capable of doing and what they can not do.
- Knowing how long a job might take.
- Establishing a relationship with the production personnel.
- Determining the appropriate channels through which to work.

While locally and specifically designed materials can add a great deal to the presentation of a topic, production of materials takes a long time, so plan well in advance of need.

Radio education programs play an important part in many national education systems. The teacher should become familiar with existing programs and radio broadcasting facilities in their country. Radio broadcasts can supplement language courses, and science and math programs as well as other subject areas. Cooperation with the government ministry in pilot programs using radio is a good way to become familiar with this media.

Audiovisual media, including television, photography, film (both 8 mm and 16 mm), slide/tape, filmstrips and more recently, videocassettes, are all part of the audiovisual media which may be available to some

teachers. These media and materials are more likely to be available in teacher training facilities than in schools or classrooms. Nevertheless, it is important to know some of the fundamentals about how to present this type of educational media to its best advantage. These fundamentals will be covered in a later part of this section.

Human Resources

In addition to the variety of audio and visual instructional materials that the teacher can locate or make and use, many other resources in the community are available to teachers.

People from the community are one resource which are often overlooked by the teacher. Lessons which stress conversation and dialogue in language classes, for example, can be made exciting by using native speakers. Many national curricula value the use of indigenous sources of local history and culture. Locating elders and community leaders to talk about historical and cultural events could provide a meaningful and novel experience for students inside a classroom environment or as part of a research project or field trip.

Students in the class, representing objects through role playing, can be used in a variety of ways to demonstrate concepts ranging from interactions between molecules to the planets revolving around the sun in the solar system. Students also have experience and knowledge that can be shared or used to bring home a point. The more students are involved in the presentation of a lesson, the greater the chance that the information will stay with them.

Subject Specialists may be available to lecture or provide question and answer sessions on topics from chemistry and biology to vocational practices. Many government personnel in education and other areas were once teachers, perhaps highly trained in their own specialty, and may make excellent role models for students.

Producing Educational Materials

After surveying existing materials and assessing which materials are required and available for unit and lesson plans, certain instructional aids may still be needed to adequately present the content of a lesson. For these, and perhaps for all materials used in the classroom, the teacher must become a materials developer and producer. Many objects which are useful in the classroom can be made out of "found" material such as discarded bottles and cans, cloth, cardboard cartons, sticks and other such items. The next section will offer some ideas on the best ways to make use of local resources in the development of instructional aids.

Realia

Using real objects in the class, or **realia** as they are sometimes referred to, is a very effective way of aiding visual identification of leaves, minerals, parts of machinery etc. In using realia, there are several points that the teacher should consider:

- ° Use recognizable objects from the environment.
- ° Prepare the materials well in advance of presentation.
- ° Keep information simple and clear.

Cross-cultural considerations should be weighed before recommending and using these types of materials, however, as many objects may be used in ceremonies and carry special meaning for teachers and students. The use of bones, either real or replicas to teach biology, for example, can often cause consternation among class members due to their cultural relevance. In general, the teacher needs to be careful when using cultural artifacts not to make them meaningless or insult the students by ignoring their cultural value.



Visual Aids

Teachers may wish to use some form of visual aids which they can make themselves. As indicated above, these might take a variety of forms including tables, charts or diagrams which display a process or identify objects. The Peace Corps Resource Packet P-8 listed at the end of this section contains numerous "recipes" for the do-it-yourself production of many different types of audio/visual aids as well as other types of materials. The chart which follows provides a sampling of the types of instructional materials which can be produced, their potential for classroom application and the types of materials you need to produce them.

Choosing and Producing Instructional Materials

	TYPE	CLASSROOM APPLICATIONS	SUPPLIES NEEDED TO PRODUCE
Low Technology	1. Blackboard	Most all demonstrations and diagrams. Erasable.	Plywood and blackboard paint. Available from UNESCO. Chalk can also be produced from local resources (see referenced resource Packet P-8 at end of section).
	2. Charts, Diagrams	Permanent display such as a periodic table of the elements.	Produce from paper, white cardboard or cloth. Words can be imprinted using felt tip markers, homemade ink or paint. Use different colors and boards and boards to rule straight lines.
	3. Real objects	Identification of parts of plants, machinery, etc.	Plant specimens, used Auto parts, objects from the environment.
	4. Flannel-graphs	Displays requiring moveable items showing action or change.	Flannel cloth or wool. Pieces made from same material or similar rough cloth that will "stick" (burlap and flannel is a good combination). Cloth may be at market or taken from old clothing. Attach to a base like stiff cardboard.
High Technology	5. Tapes for audio presentation.	Language dialogue review and oral history.	Simple audiocassette player and recorder. Batteries or power outlet if current is available. Tapes for recording.
	6. Television, Film, VCRs	Presentation of recorded programs	Video Cassette Recorder (VCR) unit, monitor, current; Film projector; Television and broadcast program from TV studio.

Using Materials in the Classroom

Whatever subject is being taught, visual aids are most effective when they are properly used and reach the greatest number of students.

Visual Aids and Learning Styles

Based on the ideas from previous sections of the manual **Child and Adolescent Learning and Instructional Objectives**), one principle which should be apparent is that certain students benefit more from seeing or touching something while others need to hear an explanation before they can understand it. The best way to be sure that every student's preferred learning style is addressed is to use a **variety** of materials within any presentation. Relying too heavily on visual aids and neglecting the importance of the spoken presentation, or doing it poorly, may mean that the teacher is not reaching those students who may learn better when they hear someone present the information orally. The key here is to mix the presentation with different types of materials if possible. Use real objects to teach classification, visual aids like charts and diagrams to teach about processes, and technological media, if available, to teach processes involving action or subjects where dramatization is appropriate. Combine different sections of the course content and use various materials to teach these sections alternating between the use of media and materials and a regular, oral presentation (see **Classroom Teaching Techniques** for more detail on presentation techniques).

Presenting an Instructional Aid to a Class

Certain steps are involved in the presentation of any instructional materials. These steps can be categorized according to when, in relation to the presentation, they should occur.

Before the Presentation

- ° Make sure that the materials relate directly to the **objectives** stated in your lesson plan.
- ° If some form of technological media is used, the teacher is well advised to check the equipment and make sure everything is in working order before the class begins.

During the Presentation

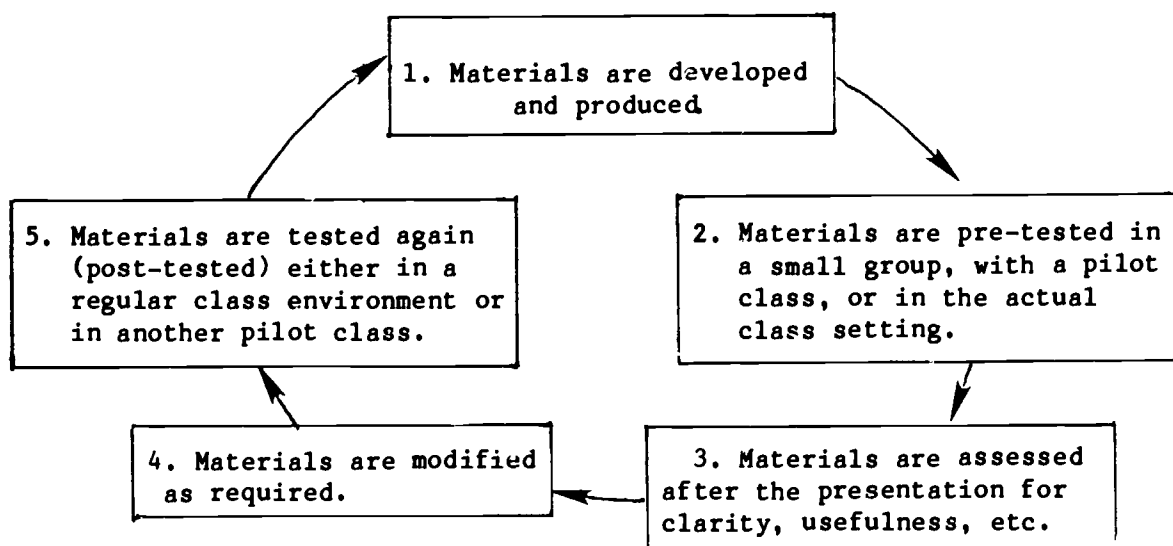
- ° The pacing of the presentation is important. The focus of attention should be shifted clearly towards a visual aid during a presentation. Begin with a phrase like, "Now, looking at this diagram, we can see that some types of plants..." .
- ° As in speaking to a class, the teacher should move slowly and clearly from one part of a visual to another, physically pointing out each figure or object in the visual aid.
- ° In using instructional media the teacher should
 - a) minimize the distraction during a presentation and
 - b) maximize the students' attention on the media being presented. (e.g. Some teachers, before a filmstrip presentation or lecture, tell the class that there will be a quiz following the presentation).
- ° Lessons using media should always be preceded by an introduction from the teacher. Films, audio tapes and other media provide much information and some form of instruction by the teacher should be given to offer some indication as to what students should look for.
- ° Provide some sort of summary or review of the material to give closure to the lesson (e.g. Study questions be used after the presentation to help students review important points).

After the Presentation

- ° Make sure that the instructional aid is safely stored so that it is ready for its next use.

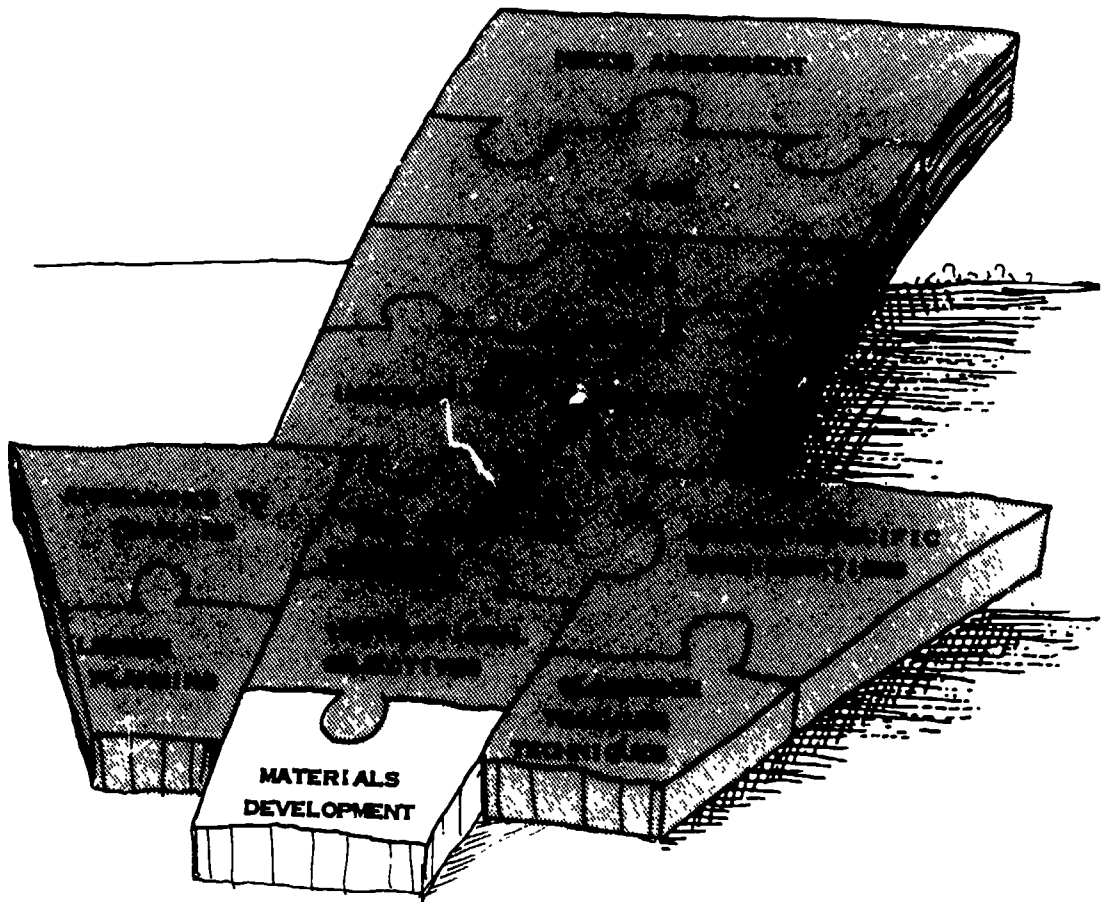
Evaluating Instructional Materials

When materials have been used as part of the instructional process, the materials themselves should be assessed for their relevancy, practicality and usefulness in the lesson or unit. If materials are developed by the teacher or are used for the first time in a classroom, then the teacher is responsible for determining how effective they are and changing them appropriately before they are used again. One such model used in the materials development field is the **pretest - modification - post test** model. In this model, materials development falls in a cycle of production:



ACTIVITY BOX

1. Take a single lesson and devise two different types of teaching aids for it. (e.g. a visual display and recorded mini-lecture using realia).
2. Devise a simple pre-test for one of your materials from #1 above. Try out the material with a class or group of trainees and evaluate its effectiveness afterwards. Make appropriate modifications.



References:

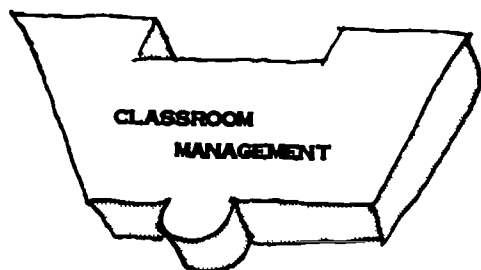
Resource Packet P-8 Audio-Visual/ Communications Teaching Aids, Peace Corps, Information Collection and Exchange (ICE). This packet contains many useful ideas on the production of visual and other types of teaching and training aids for use in developing countries. Among the materials in this packet are:

Audiovisual Communication Handbook, Indiana University. This book provides a great deal of information about the production, use and evaluation of audio and visual aids in education. It has a low-tech approach which is suited to the needs of many teachers in Third World countries faced with modest material supplies.

The Multiplier Handbook, USAID. This book emphasizes handmade materials both for reproduction and for one-time use in the classroom.

CLASSROOM MANAGEMENT

CLASSROOM MANAGEMENT



One of the most important skills that a teacher can bring to the classroom is effective classroom management. Most experienced teachers will agree that a large part of their teaching time is spent maintaining a classroom environment conducive to learning. Many issues which affect management and discipline problems extend beyond the boundaries of nations and into any classroom setting. Still others are totally dependent on the cultural context and the specific situations of individual students.

Teachers need to recognize that issues of class size, classroom facilities and the teacher's own behavior and attitudes are not the only variables at play. Work responsibilities at home, malnutrition, lack of sleep, distance traveled to and from school, traditional view of a teacher's role, and personal motivation towards attendance can all affect the student's performance academically and behaviorally.

The key to effective classroom management lies in the realization that students come from different backgrounds and attend school for different reasons. Nevertheless, the teacher must find a way to balance the needs and desires of individual students with the well-being of the group as a whole. It is also important to realize that students have become used to certain methods of instruction and that quick changes from these methods although pedagogically sound in our culture, may fail miserably in another. Teachers should observe traditional disciplinary techniques used in both the home and school and consider what role these accepted techniques have in your personal classroom management style. Continued dialogue with parents, school officials, other teachers, students and community members will give you the insight that is needed to adapt and maintain successful and culturally appropriate management of your classroom.

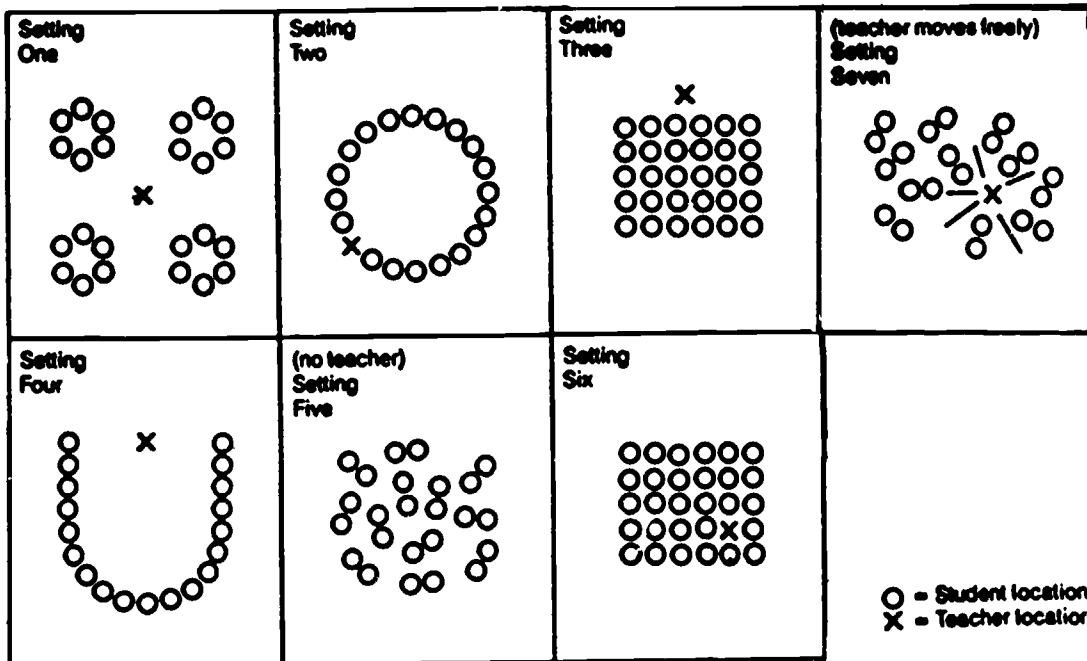
This section will address a variety of issues that influence classroom management. They include:

- Physical Aspects of the Classroom
- Curriculum Design Considerations
- Expectations and Limits
- Support Systems
- Teacher Attitude
- Teaching Routines
- Teacher on Stage
- Addressing Individual Needs
- Handling Discipline Problems
- Using the Least Amount of Necessary Discipline

To one degree or another, all of these issues can be associated with discipline. It should be remembered that how well a teacher manages the classroom directly influences the behavior of the students and the amount of discipline necessary to maintain order.

The Physical Aspects of the Classroom

The room should be as comfortable and as conducive to learning as possible. Variety in seating arrangements as shown below can change the atmosphere of the entire classroom in one easy step. You should experiment with different arrangements to meet your needs and resources.



Many teachers will be working in classrooms with row benches and desks. Creative seating arrangements will be difficult in this situation but the teacher may have the option of taking the students outside and conducting the class under a tree with the aid of a portable blackboard. Conducting classes outdoors may also be used by the teacher as a reward to reinforce good behavior as most students will enjoy the chance to get out. In utilizing this strategy, however, the teacher should be aware of distractions that may cause students' attention to wander.

Charts, maps, globes and other displays made from local resources give the room and educational feeling which can be very useful in determining the mood. Having students display their work is a good way of recognizing the student efforts and can add not only to the student's self esteem but also to the educational atmosphere. Many learning activities can be designed around student created displays and bulletin boards. If bulletin boards do not exist, a piece of cardboard or cork can serve as a display board (see **Materials Development and Resource Utilization**).

The room should be well organized and allow for a free flow of student traffic. Teachers may want to experiment with the seating chart arrangement for students. If two or more disruptive students are sitting together in the same row, the teacher should separate them. Having a fixed seating chart helps in the beginning to learn the names of the students but to stay with the same seating chart throughout the year may lead to stagnation or disruptive behavior. Arrange your room to enhance classroom learning and to avoid disruption.

Curriculum Design Considerations

In instances where the government determines course content, teachers may feel that they have little control over their subject area. What they should realize is that they do have control over how that content is designed and presented (see sections on **Writing Objectives, Lesson Planning, Classroom Teaching Techniques, and Material Development and Resource Utilization** for more information in these areas). If improper objectives, learning activities and materials are selected, students can become bored, apathetic, fatigued and frustrated - all potentially leading to misbehavior. Teachers should plan for activities that are interesting and enjoyable but which, at the same time, deal with the basic curriculum that needs to be covered. Activities should provide a challenge for all students but also remain in the reach of students. Lessons should be varied and, if possible, integrated other aspects of the student's life. The teacher will find that if the lesson can actively hold the attention and interest of the student, misbehavior and disruptions will be the rare exception and not the frequent rule.

Expectations and Limits

Every teacher needs to decide what is and is not acceptable behavior. Ranges of acceptable behavior must be determined for noise, movement, talk, self-control, getting to work, completion of tasks and good manners. Discussions with other local teachers can help the teacher to decide these limits since codes of conduct vary among cultures, within

cultures and from school to school. Rules must be seen to be fair and culturally appropriate. Teachers may want to allow student input when creating these rules. They should avoid establishing too many rules, however, as more time can be spent keeping to the rules than on academic tasks.

Before rules are enforced, the following steps should be taken:

- ° Each rule should be explained to the students clearly and reasons must be given that show how these rules contribute to classroom learning.
- ° Rules should be posted in the front of the class to help the students focus on the teacher's expectations and to be used for periodic reference.
- ° Rules should be stated positively to avoid a negative challenge for the students. (e.g. rather than saying, "No cheating during tests!" teachers should focus on the positive and state the rule as, "Students will be expected to do their own work during tests.")
- ° All rules that are created must have a system of positive as well as negative consequences. Rules and consequences should be explained to the students on the first day of classes. If students follow the rules, the reward system will reinforce good behavior. Negative consequences for breaking the rules must be humane and culturally appropriate but must be something that the students do not like or want. (Humiliation should be avoided and all attempts should be made to protect the dignity of the students regardless of their behavior).

Students should understand that they make the choice between good or bad behavior. It is the role of the teacher to help students make good choices and provide students with alternatives to bad choices, bad behavior and thus bad consequences.

One of the most important points that must be kept in mind: BE CONSISTENT! Always confront misbehavior and do not let violations go unnoticed or unenforced or the students will soon see the discrepancies in your system of discipline. In the same light, reinforce good behavior and show students you are there to help them achieve good consequences. When confronting misbehavior, do not dwell on the incident which causes a break in teaching and learning, which should be the primary focus of all class activities.

Support Systems

Teachers should identify and establish a support system for their chosen management system that extends from the school through the community. This support system should consist of other teachers, the principal and parents. It is important that the teacher has the support of the principal to follow through on discipline problems that are beyond the time and means of the teacher. The teacher should explain his/her rules to the principal as soon as possible and approach other teachers for help and support in implementing his/her management system.

When possible, the teacher should establish communication channels with the parents. Several methods can be used to keep in touch with parents and begin to create a reserve support system for your management practices:

- Use newsletters and notes (Be aware of whether the parents are literate or not before sending notes home);
- Set up parent/teacher conferences at regular intervals to discuss the student's progress.
- Informal meetings are useful ways to get to know the parents and for the parents to get to know you.

Gaining the respect of the parents and letting them know that he/she is sincerely interested in the progress of their children may provide the teacher with one of the most important and useful support systems of all. (The teacher should not feel discouraged if he/she cannot make these contacts with parents. In many cultures the teacher is viewed as the person best qualified to handle decisions concerning the educational development of the student and consultation with the parents is not the norm.)

Teacher Attitude

Teachers should assert their rights to teach, to discipline and to ensure student learning. Students should understand from the teacher's attitude that the teacher will not let anything interfere with his/her right to teach and the students' right to learn.

Teachers should also realize that they act as a role model for many students. You should be the best example possible for the students to follow. Act and speak in ways that you want your students to act and speak. You may want to make a checklist as to what these are so that the list can serve as a constant reminder.

Students are sensitive as to whether the teacher enjoys teaching. Be as positive as possible and be aware of how your attitude affects the students.

Teaching Routines

This refers to the routines of teaching and the delivery of lessons. As mentioned before, routines are important in clarifying for the students what is expected of them. Teachers should clearly explain the routines for entering and exiting the room, sharpening pencils, obtaining and replacing materials, and leaving for the toilet.

The teacher should be organized and well prepared for all lessons. Lesson plans that are carefully thought about well before the lessons begins allow the teacher to focus on other aspects of classroom management and are generally well received by students.

Teacher on Stage

In many ways, the teacher has a great deal to learn from the actor on the stage. The mannerisms and speech the teacher uses while conducting the lesson are very similar to those used in presenting dramatic productions. The following are some key rules to keep in mind when 'presenting' your lessons:

- Speak clearly and face the students when speaking to them.
- Learn to use the blackboard effectively and if you need to write many notes on the board, periodically turn and break from the note-taking to address the students.
- Focus on all the students in the class. Eye contact is very important and should not be reserved for only a few students.
- Be aware of all students in the room and learn to scan over the class as you talk.
- Use gestures and voice control (these are an effective means of attracting and holding students' attention).

In general, dramatic techniques can add excitement to a lesson but it is not necessary to become a stand-up comic to get your point across. A joke, if it is appropriate to the lesson and the culture, can encourage laughter and excitement and help students enter into the spirit of learning. In general, however, entertainment techniques should be used only when they are effective in driving home a point, changing the atmosphere of the classroom and, ultimately, helping the students learn.

Teachers should also be aware of certain gestures that may be culturally offensive or misunderstood. Dress and appearance are also important and teachers should be aware of the local standards expected of teachers.

Addressing Individual Needs

The main objective of most students is to be accepted, feel wanted, and feel that they are part of the class. Teachers should concentrate on giving all students in the class regular attention. This may be hard to do in large classes but every effort to communicate with the students should be made. Some students are coming from very large families or families with missing parents. School offers them their only real opportunity to be recognized and addressed as an individual. Interaction with students on a personal level is important and can greatly enhance conditions for classroom management and the maintenance of a successful learning environment.

Teachers should find ways to help students individually or in pairs, if this is more culturally accepted. Conferences can be conducted during the class while other students are working individually or in groups. Some teachers maintain a checklist of short but effective individual conferences and in this way can check to see if they have been showing personal attention to every student.

Signals can be sent to students in a very private way. The teacher can:

- Catch the eye of a student while lecturing and hold eye contact for a moment.
- Smile or show positive gestures (such as a nod of the head) to reinforce correct behavior or answers.
- Stand near the student, if culturally appropriate, to show your concern. Proximity can be an important mechanism to express both positive and negative concern; a light touch on the shoulder might indicate praise for a job well done while a heavier touch might show concern.

It must be mentioned though that praise can be overdone and if students hear the same words of praise constantly, this very important aspect of teaching behavior loses its effectiveness. Practice both verbal and nonverbal ways of praise and use different terms to reinforce good behavior or effort.

Handling Discipline Problems

This section has taken the stance that most discipline problems can be forestalled if early classroom management practices are established. Even in the best managed classroom, however, discipline problems arise and the teacher needs a strategy to deal with these. The following list outlines key points a teacher should keep in mind when handling discipline problems in the class.

General Strategies

- Do not try to teach through classroom disruptions. Stop the class and have students remain quiet for a few seconds to calm down and then move on to the lesson.
- Do not lose control of the situation by raising your voice and yelling at your students. Use a calm and controlled voice when addressing the problem.
- Do not let the situation get out of hand by overlooking small discipline problems such as unnecessary chatter or throwing pencils around the room. Set your standards of classroom behavior and stick to them.
- Do not get tough and insulting. Remain calm and at all times maintain a professional manner.
- Do not keep all discipline problems to yourself. Keep your headmaster informed about serious problems.

Strategies for dealing with troublemakers

- Do not let troublemakers sit together. Students should understand that sitting next to their friends is a privilege that must be earned.
- Do not spend too much class time addressing persistent troublemakers. If the problem can not be solved in a reasonable amount of time, ask the student to leave the classroom and move on with the lesson.
- Address the persistent troublemakers outside of class. When certain students continue to act up in class a conference after class or after school can help to identify the problem. Also remember to reinforce their good behavior and give these students positive attention during the class as well as giving them the opportunity to participate in the class in a positive manner.

Using the Least Amount of Necessary Discipline

Teachers should stick to the principle of using the least amount of discipline necessary to maintain a positive learning environment. Discipline techniques are important to protect teaching and learning rights but should not be instituted as an end in themselves. Avoid overkill and use only the amount of discipline that is necessary for an effective classroom. For some classes, the amount and type of discipline will be light; for others, it will be heavy. It is important for the teacher to find the right balance for their particular class.

Again, it is important to realize that most classroom problems can be avoided by efficient classroom management. Teachers should observe classes in the school before teaching if possible to get a better understanding of the traditional ways of discipline in order to find the right balance of the discipline they feel comfortable with and the expectations the students have of a teacher in that society.

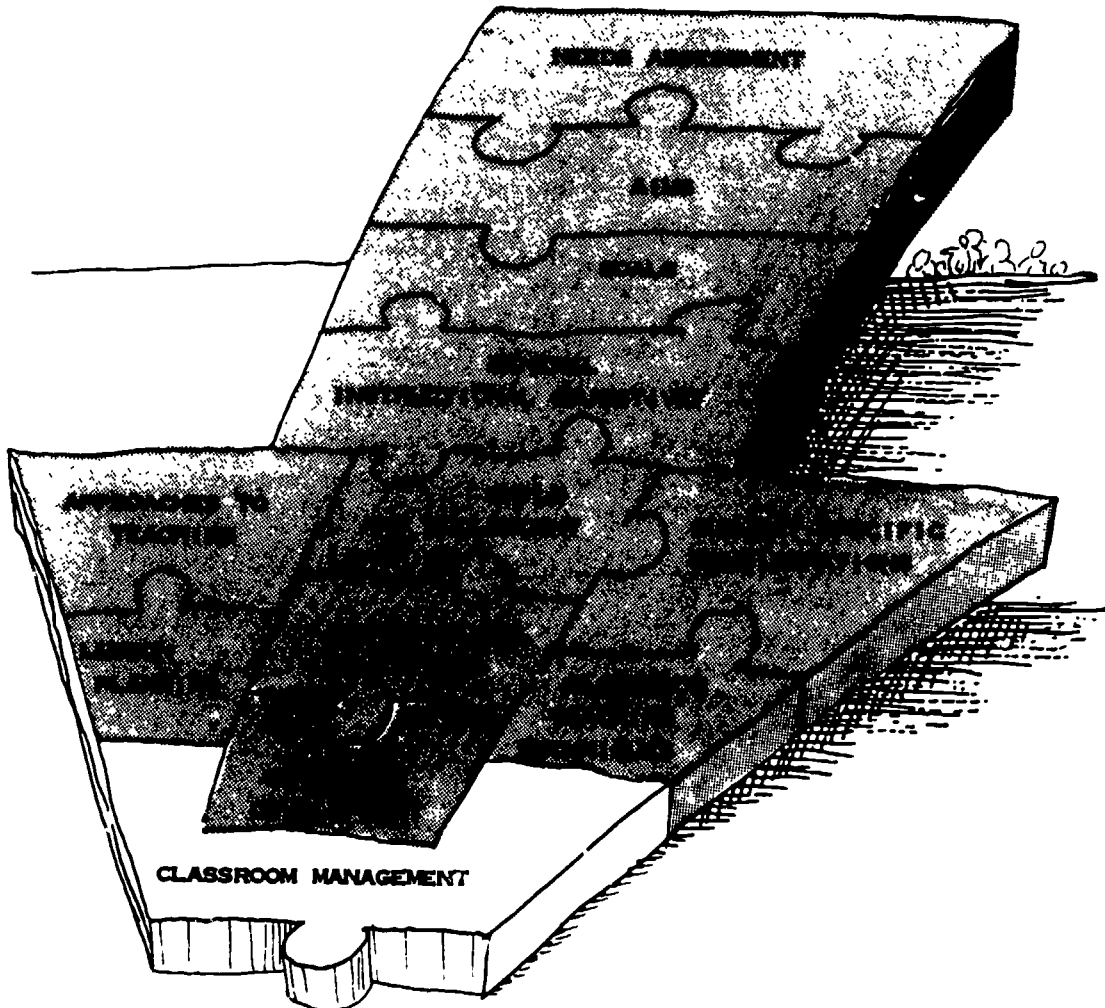
Summary

Classroom management is described above in the most general terms, and specific implementation strategies must be developed according to personal style, cultural norms, and situations. There is no one formula, as for many things in teaching, that can be applied across the board to produce an effective management style. Forced to work in a traditional classroom setting, a variety of creative techniques and individual attention could make both teacher and student forget where they are. The parents of student in your class may live on the other side of the country, but your attitude, approach to discipline and attention to individual needs may make the students feel at home with you in the classroom. The main point to remember is that you look around, try things out, make some decisions, inform the people that it most directly affects, and be consistent and fair in implementing your decisions.

The sooner you decide on your management style and let the students know what it is and will always be, the sooner you can get on with the real task at hand: helping the students to expand their abilities, knowledge and potential.

ACTIVITY BOX

1. Think of the most effective teacher in your school. How does that person discipline? What is the atmosphere in the classroom?
2. Think of the least effective teacher in your school. How does that person discipline? What is the atmosphere of the classroom?
3. Create a list of rules for classroom behavior with which you would feel most comfortable. Discuss that list with a teacher whose classroom management style you respect and who knows the cultural norms. Redesign your list based on that conversation and consider how you would present/negotiate it with your students.



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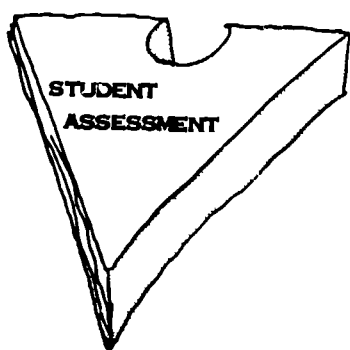
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ASSESSMENT OF STUDENT LEARNING

ASSESSMENT OF STUDENT LEARNING



Student learning is a result of numerous factors -- an appropriate and meaningful curriculum, availability of materials, a supportive administration, a favorable classroom atmosphere, student willingness and ability to learn, and teacher effectiveness, to name only a few. The extent to which these exist influences the relative level of success in the learning process. Because success is always relative, it is important to assess

levels of success attained. As a diagnostic tool, assessment of student learning can serve to determine the initial abilities (and thus the needs) of both the individual student and the class as a whole. As an evaluative tool, student assessment can provide the teacher and school administration with an ongoing and final profile of student learning as well as teacher effectiveness at each point in the process. Thus, assessment of student learning is a vital diagnostic and evaluative tool for determining content and procedure in both lesson planning and test writing.

This section will present various types of student assessment including specific information on testing. Suggestions will be given for test construction, administration and scoring. Finally, evaluation of measuring instruments will be discussed as a tool to test the validity and effectiveness of student assessment methods.

Assessment Techniques

Numerous assessment techniques can be used for the purposes of both evaluating and grading student learning:

1. **OBSERVATION.** Though the teacher naturally observes his/her students regularly, observation can be a useful assessment tool if it is systematized:
 - by taking notes on who answers which questions, how many people answer them, etc.;
 - by giving grades for student participation;
 - by observing other people's classes (see Chapter 3, **Collaboration**).

(for more detail on Observation Techniques, see the section on **Supervision** in Chapter 1)

2. **DIALOGUE/CREATIVE QUESTIONING.** Through dialogue and creative questioning, the teacher can "get a reading" on what the students understand, what material is more difficult, where the lesson is unclear, etc. (See Questioning Skills in the **Classroom Teaching Techniques** section).
3. **HOMEWORK.** The teacher can assign points to written homework assignments, thus getting immediate feedback on student learning as well as additional material for grades.
4. **CLASS PROJECTS.** When class size permits, students can work in small groups on any task the teacher deems appropriate. This can be followed by a presentation given by students to the rest of the class. Students can be assessed on skills they demonstrate during the course of the project such as library, research, writing, and presentation skills. Students can even construct, administer and grade quizzes on their sections with the guidance of the teacher.
5. **OUTSIDE PROJECTS/EXTRACURRICULAR ACTIVITIES.** Because many courses can be augmented by such activities as field trips, group projects outside of class, independent study, etc., these activities can be assigned and then evaluated.
6. **TESTING (FORMAL ASSESSMENT).** Written assessment of student learning ranges from short quizzes to end of term examinations. (Testing is described in detail in the remainder of this section.)

Choosing an Assessment Technique

Learning conditions in many countries preclude the usefulness or even practicality of certain assessment activities. Overcrowded classrooms, lack of materials, and general attitudes about traditional teaching and testing present nearly insurmountable obstacles to innovation. The tendency is for the teacher to revert to testing as the primary or sole assessment strategy. But for all the arguments commonly given in support of testing, as many could be made in opposition. In recent years, educational theorists have observed that testing creates a competitive atmosphere which can adversely affect the learning process; testing is more often used to order and sort (i.e., selecting and eliminating) than to evaluate. To the extent that assessment of student learning should first evaluate and then order, other assessment techniques can prove to be more desirable. Keep in mind, however, that most educational systems are examination driven. The fact that examinations determine advancement from one level to the next as well as the final overall assessment of a student's academic performance may actually mean that the teacher has greater freedom in the use of alternate assessment techniques within his/her classes. Since individual class grades often do not serve as the primary record of individual achievement, the school administration may not pay attention to how the teacher determines grades in a given

semester. Never-the-less, it is important to be aware of the fact that forms of student assessment other than testing might meet with initial resistance from the school administrations and/or fellow teachers.

Whether a teacher decides to use tests or other assessment techniques, objective criteria should be established to evaluate student performance. This is especially true with non-written forms of assessment. If, for example, the teacher decides to give grades for oral participation, what objective criteria are to be used in distinguishing a good response from a fair one? Great care must be taken to be sure that grades are given on the basis of objective criteria, not just personal preferences or personalities (see **Instructional Objectives**).

Perhaps the best strategy is to use a variety of written and non-written assessment techniques which assess a wide range of learning styles (see **Child and Adolescent Learning**) as well as the desired content area. In general, the more techniques utilized by a teacher, the more varied, interesting, and effective his/her teaching and testing will be.

ACTIVITY BOX

1. Choose one of the assessment techniques above and make a list of five criteria by which you will evaluate your students' performance.
2. Why are certain techniques of assessment more accepted than others? What problems might you encounter in trying to use them?

Testing

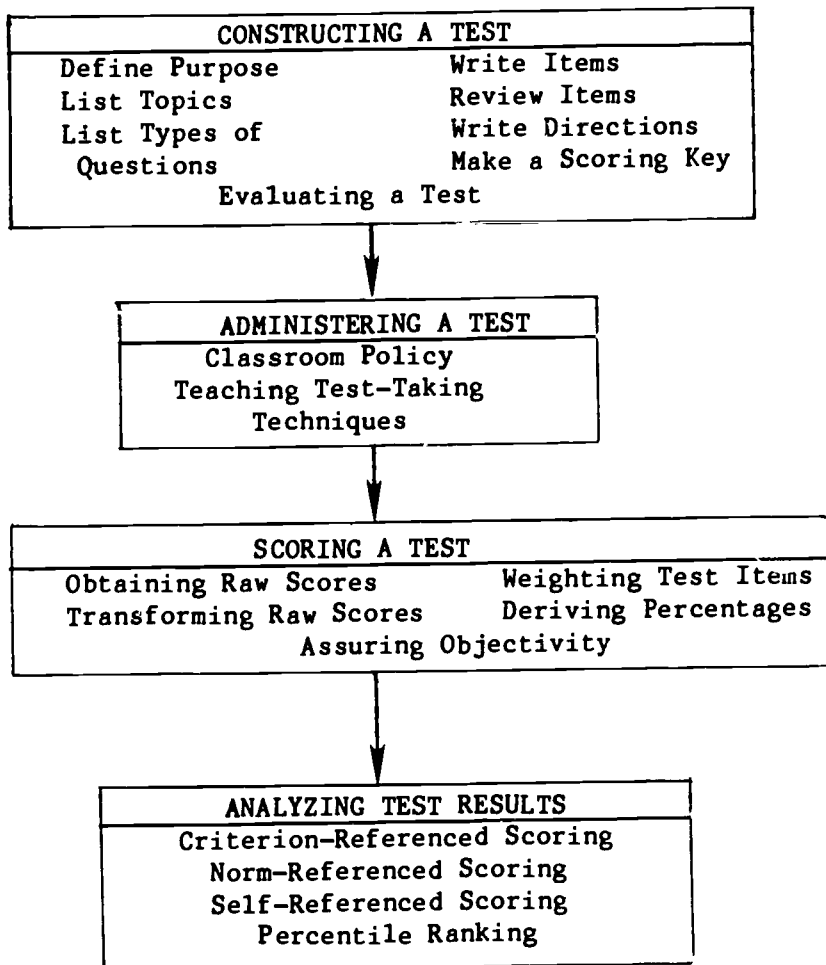
The traditional approach to assessment of student learning is formal testing. Still the most widely used of all methods of assessment, testing has been the center of discussion and debate among educators for years. The topic of testing includes a large body information, some of which will be discussed in the upcoming section. Basically, testing consists of four primary steps: test construction, test administration, scoring and analyzing the test. Each of these steps can result in a variety of test forms and elicit a variety of useful outcomes, such as:

- o Ideas for lesson plans
- o Knowledge of individual students

- Ideas for approaching different students/classes
- Scores for admission
- Indication of teacher effectiveness

The following is a schematic of the steps in testing that will be covered in the rest of this section.

Steps in the Planning and Evaluation of Tests



CONSTRUCTING A TEST

There are eight basic steps in constructing a test:

1. **Defining the purpose.** Before considering content and procedure, the teacher must first determine who is taking the test, why the test is being taken, and how the scores will be used. Furthermore, the

teacher should have a rationale for giving a test at a particular point in the course: Does the test cover a particular part of the unit content? Or should material currently being studied be saved and tested at a later time when the entire section is completed?

2. **Listing the topics.** Once the purpose and parameters have been established, specific topics are listed and examined for their relative importance in the section. This is called representative sampling. For example, if the study of crustaceans comprised approximately 10% of all class work in the section to be tested (including class time, homework, and other assignments), then that topic should comprise approximately 10% of the test. This can be done either by calculating the number of questions per topic or by weighting different sections to match class coverage (see 7. Making a Scoring Key below).
3. **Listing types of questions.** Different types of material calls for different types of test questions. While multiple choice questions might adequately test a student's knowledge of mathematics, essays reveal more about a student's understanding of literature or philosophy. Thus, in deciding what types of test questions to use (short answer, essay, true/false, matching, multiple choice, etc.) the following advantages and disadvantages should be kept in mind:

Type	Advantages	Disadvantages
Short Answer	Can test many facts in short time Fairly easy to score Excellent format for math Tests recall	Difficult to measure complex learning Often ambiguous
Essay	Can test complex learning Can evaluate thinking process and creativity	Difficult to score objectively Uses a great deal of testing time Subjective
True/False	Test the most facts in shortest time Easy to score Tests recognition Objective	Difficult to measure complex learning Difficult to write reliable items Subject to guessing
Matching	Excellent for testing associations and recognition of facts Although terse, can test complex learning (especially concepts) Objective	Difficult to write good items Subject to process of elimination
Multiple Choice	Can evaluate learning at all levels of complexity Can be highly reliable, objective Tests fairly large knowledge base in short time Easy to score	Difficult to write Somewhat subject to guessing

From Classroom Teaching Skills, James M. Cooper (1986) p370. Used by permission of D.C. Heath and Company, Lexington Massachusetts.

In choosing types of questions to be used on a test, it is also important to consider the following points:

- ° Classroom conditions can automatically eliminate certain types of questions. Since answers to multiple choice questions can be easily copied in an overcrowded classroom, they might not be an accurate measure of student learning. Likewise, if blackboards are the only media available for presenting the test, long questions and textual references might be impossible to include on the test.
- ° Considerations regarding administration and scoring often dictate the type of questions to be included on a test. Numbers of students, time constraints, and other factors might necessitate the use of questions which can be administered and scored quickly and easily.
- ° The types of knowledge being tested should be considered in the assessment process. A simplified checklist could be used by the teacher to determine if students have been assessed in all relevant areas. This could take the form of a graph such as the one which follows:

TOPICS TO BE TESTED	:FACTS:	:SKILLS:	:CONCEPTS:	:APPLICATION:
Verbs: Conjugation of "to be"	:	x	:	:
Pronunciation: Short "a"	:	:	x	:
Use of Modals: Should, Must, Ought to	:	:	:	x
Free Expression	:	:	:	x

4. **Writing items.** Once purpose, topics and types of questions have been determined, the teacher is ready to begin writing the specific parts, or items, of the test. Initially, more items should be written than will be included on the test. When writing items, the following guidelines are followed:

- ° Cover important material. No item should be included on a test unless it covers a fact, concept, skill or applied principle that is relevant to the information covered in class (see 3. Listing Types of Questions above).
- ° Items should be independent. The answer to one item should not be found in another item; correctly answering one item should not be dependent on correctly answering a previous item. (This guideline might not apply in some cases. For example, a math test might begin by testing simple skills and then test their integration. In all

cases, the teacher should be aware of what is being tested at each level and use this strategy sparingly).

- ° Write simply and clearly. Use only terms and examples students will understand and eliminate all nonfunctional words.
 - ° Be sure students know how to respond. The item should define the task clearly enough that students who understand the material will know what type of answer is required and how to record their answers. For example, on essay questions, the teacher may specify the length and scope of the answer required.
 - ° Include questions of varying difficulty. Tests should include at least one question that all students can answer and one that few, if any, can answer. Tests should be designed to go from the easiest to most difficult items so as not to immediately discourage the weaker students. (read **Cross Cultural Considerations** on page 148.)
 - ° Be flexible. No one type of item is best for all situations or all types of material. Whenever feasible, any test should contain several types of items.
5. **Reviewing items.** Regardless of how skilled the teacher is, not all his/her first efforts will be perfect or even acceptable. It is therefore important to review all items, revising the good and eliminating the bad. Finally, all items should be evaluated in terms of purpose, standardization, validity, practicality, efficiency, and fairness (see 8. Evaluating a Test below).
 6. **Writing directions.** Clear and concise directions should be written for each section. Whenever possible, an example of a correctly answered test item should be provided as a model. If there is any question as to the clarity of the directions, the teacher should "try them out" on someone else before giving the exam.
 7. **Devising a scoring key.** While the test items are fresh in his/her mind, the teacher should make a scoring key -- a list of correct responses, acceptable variations, and weights assigned to each response (see **Scoring** below). In order to assure representative sampling, all items should be assigned values at this time. For example, if "factoring" comprised 50% of class material to be tested and only 25% of the total number of test questions, each question should be assigned double value.
 8. **Evaluating A Test.** All methods of assessing student learning should achieve the same thing: the clear, consistent and systematic measurement of a behavior or something that is learned. Once a test has been constructed, it should be reviewed to ensure that it meets

six specific criteria: clarity, consistency, validity, practicality, efficiency, and fairness. The following is a checklist of questions that should be asked after the test (or any assessment activity) has been prepared and before it is administered:

- | | | |
|--|---|---|
| A CLEARLY DEFINED
PURPOSE | — | Who is being assessed? |
| | — | What material is the test (or activity) measuring? |
| | — | What kinds of knowledge or skills is the test (or activity) measuring? |
| STANDARDIZATION OF
CONTENT | — | Do the tasks or test items relate to the objectives? |
| | — | Are content, administration, and scoring consistent in all groups? |
| VALIDITY | — | Is this test (or activity) a representative sampling of the material presented in this section? |
| | — | Does this test (or activity) faithfully reflect the level of difficulty of material covered in the class? |
| PRACTICALITY AND
EFFICIENCY | — | Will the students have enough time to finish the test (or activity)? |
| | — | Are there sufficient materials available to present the test or complete the activity effectively? |
| | — | What problems might arise due to structural or material difficulties or shortages? |
| FAIRNESS | — | Did the teacher adequately prepare students for this activity/test? |
| | — | Were they given advance notice? |
| | — | Did they understand the testing procedure? |
| | — | How will the scores affect the students' lives? |

ACTIVITY BOX

1. Make a statement of fact. Now write it as a test item in the form of multiple choice, matching, true/false, and short answer. If you were to include this item on a test, which format would you choose?
2. Write directions for the format you chose in activity one and read them to someone else. Are they clear? Concise? Understandable?
3. Take a test that you have designed. Before you administer it use the checklist above to evaluate it.

ADMINISTERING A TEST

Once the items, directions, and answer key have been written, the teacher should consider the manner in which the test will be presented in advance. Factors such as duplication, visual aids, and use of the blackboard should be considered in advance to insure clarity in presentation as well as to avoid technical difficulties.

Establish Classroom Policy

Because discipline is a major factor in test administration, the teacher must establish a classroom policy concerning such matters as tardiness, absences, make-ups, leaving the room, and cheating (see **Classroom Management**). The teacher must also advise students of procedural rules such as:

- What to do if they have any questions.
- What to do when they are finished taking the test.
- What to do if they run out of paper, need a new pen, etc.
- What to do if they run out of time.

The teacher should always be aware of the effect of testing conditions on testing outcomes. Physical shortcomings should be alleviated wherever possible. If some students cannot see the blackboard, they should be allowed to move to a better location. If students are cramped into benches, more benches should be brought in and students should be spread out. If this is not possible, two separate tests can be written and distributed to students on an alternating basis.

Similarly, psychological conditions can inhibit optimal performance. Such factors as motivation, test anxiety, temporary states (everyone has

a bad day once in a while), and long-term changes can profoundly effect the test-taker and therefore his/her performance on the test. It is therefore the teacher's responsibility to establish an official, yet not oppressive, atmosphere in the testing room to maximize student performance.

Teaching Test-Taking Techniques

Perhaps the greatest psychological impediment most test-takers face is a lack of knowledge about test-taking techniques. Students often fail tests not because they do not know the material but because they do not understand the procedures and techniques for successful test-taking. If a test is to be as fair as possible, students must understand both test-taking procedures and techniques. This means that the teacher should familiarize his/her students with:

- The type of test to be given (e.g. diagnostic, proficiency, achievement, etc.) and how to study for it.
- The types of items which will appear on the test and how to respond to them (e.g. matching, fill in the blank, essay questions, etc.).
- The types of directions commonly accompanying certain types of test items.
- Strategies for successful test-taking (e.g. time management, the process of elimination, guessing, etc.).

These skills can be taught using practice quizzes or tests that students can grade for each other, homework assignments that take the form of a test or using other informal, non-threatening situations for students to try their newly acquired test-taking skills. The importance of teaching test-taking skills cannot be overemphasized -- **TESTING METHODOLOGIES ARE CULTURE-SPECIFIC AND THEREFORE MUST BE LEARNED.**

ACTIVITY BOX

1. Think of a test you took as a student on which you did very well. What factors contributed to your successful performance (classroom conditions, nature of the test, personal interest in subject matter, etc.)?
2. Think of a test you took as a student on which you did very poorly. Can you remember why?
3. Construct a quiz consisting of five multiple choice questions. How would you explain this method of testing to a class which has never seen it before?

SCORING A TEST

In order to determine how well a student performed on a test or in an activity, specific value must be assigned to each test item or activity component. Then, raw scores must be derived and, if necessary, transformed to fit the requirements of testing within specific contexts.

Obtaining Raw Scores

The first step in determining how well a student performed on a test or in an activity is to derive a raw score, or number of items answered correctly. Hence, if a student answers eight out of ten items correctly, his/her raw score is eight.

Transforming Raw Scores

Unlike grading in the U.S. or in countries following the British model, where grades are determined based on 100 points, grading in countries following the French model is based on a system of 20 points. In order to make tests match such a predetermined number, raw scores must be transformed into fractions, decimals, or multiples of their raw value. For example, say the desired result is a score over 20, but a test includes 30 questions. If all questions are of equal importance and difficulty, they can be considered as fractions ($\frac{2}{3}$ pt. each) or as decimals (.66 each). Likewise, if a test has only 10 questions, each can be multiplied by two to obtain a score over 20.

Cross-Cultural Considerations

In general, grading is much harsher in many countries than in the United States. Students rarely, if ever, achieve perfect or even near perfect scores on tests or as a final grade. In countries following the British model, a passing grade is 50/100 or better, in the French model, 10/20 or better. It is therefore, inappropriate, for example, to give even the best students a grade higher than 80% (British) or 16/20 (French). In fact, your school administration, fellow teachers, and students will be bewildered and even angry if you deviate from this strict rule. Remember: 50% or 10/20 reflects an adequate performance, equivalent to the U.S. 70% or C. It is, therefore, important when designing a test that you include items of sufficient difficulty to reflect this grading tradition.



Weighting Test Items

In the event that some questions are more important or more difficult than others, they can be weighted; that is, some questions can be considered of double value (in the example above, 1 point each) and others of less value (1/4 point, or .25). In other words, as long as the total value for the test equals the predetermined number required, individual item values can be juggled as the teacher sees fit (see table on coefficients under Norm-Referenced Scoring below).

Deriving Percentages

By transforming raw scores into percentages, the teacher can compare tests of varying length and difficulty or tests of varying amounts of points on equal terms.

If all items on a test are worth the same amount, the percentage correct can be determined by dividing the number of correct items by the total number of items, then multiplying by 100%:

$$\text{Percent correct} = \frac{\text{Number of items correct}}{\text{Total number of items}} \times 100\%$$

If the items are of different weight, the percentage correct can be determined by dividing the number of points earned by the maximum number of points, then multiplying by 100%:

$$\text{Percent correct} = \frac{\text{Points earned}}{\text{Maximum number of points}} \times 100\%$$

Assuring Objectivity

As with test construction, the key to successful test scoring is objectivity. By setting certain standards and prescribing certain rules, the teacher can be sure that scoring has been objective and students have been treated fairly. Three techniques are particularly helpful in assuring objectivity:

- immediate scoring & recording
- using a scoring key
- having a procedure for comparing responses to the key

Perhaps it seems self-evident, but immediate scoring and recording of scores can do much to alleviate misunderstanding and bias. The more time that goes by between test-taking and scoring, the greater the chances of

forgetting relevant information or losing papers altogether. More importantly, the sooner the students get their tests back, the more meaningful their performance on the test. It does little good to return a test months after it has been taken when students have to review the material tested just to remember why they answered the way they did.

Using a scoring key can make scoring papers go quickly while reducing the possibility of error and bias. It can also simplify and standardize the process of scoring if numerous people will be scoring the test. Having a procedure for comparing responses to the key can also speed up the scoring process and increase objectivity. For example, the teacher can:

- Scan several papers before starting scoring to get a baseline view of the type and level of responses.
- Grade a sample of papers twice to see if he/she is, in fact, grading consistently.
- Score papers anonymously so as not to be influenced by students' performance in other aspects of the course (this can be done by assigning numbers before hand, folding the tops of test papers back, etc.).
- Grade items one at a time -- that is, first grade all answers to item 1, then all responses to item 2, and so on (this technique is particularly useful with essay tests where it is important to look for key points in each response).

ANALYSING TEST RESULTS

Once test papers have been scored, they can then be analyzed in numerous ways to provide the teacher with information about student performance. For example, a student's tests from one semester can be ranked to show relative areas of strength and weakness; averaged class scores on a given test can be ranked to compare one class's performance to that of another. Such information is important for making decisions about lesson planning and future testing as well as knowing how to approach different students and classes.

In order to analyze anything, specific criteria must be established. In test analysis, three different criteria are generally used: the content of the test, the norm group taking the test, or an individual student.

Criterion-Referenced Scoring

Criterion-referenced scoring uses the content of the test itself as a the basis of comparison for assessing the student's level of achievement. Thus, a content-referenced score of 80% means that the student correctly answered 80% of the items on the test. The most common of all methods of test analysis, content-referenced scoring is used in:

- to determine the level of achievement at which to begin a student;
- to determine how much a student has learned from given section of material; and
- to determine a student's potential in a given field.

Norm-Referenced Scoring

Sometimes referred to as "grading on a curve," norm-referenced scoring uses the class as a whole as a referent. The class average, or mean, usually serves as the base score against which all other grades are judged. The mean is calculated by adding all the scores and then dividing by the number of scores given (e.g., the total test scores in a class of 25 equals 1625, the class average, or mean, is 1625/25, or 65).

Some schools require certain percentages of passing grades per class. If these percentages are exceeded, the teacher is seen as "too easy"; conversely, if these percentages are not met, students can become indignant and discipline problems can result. In these instances, it is important to be able to adjust students' scores so that official standards can be met. Such adjustments can be made by:

- adding (or subtracting) points to students' overall scores
- adding (or subtracting) points to sections in which students scored the highest
- making the next test easier (or harder)
- weighting the test lightly (or heavily) on the semester-end grade by multiplying each test by an appropriate amount, or coefficient. For example, in the table below, Panafricanism is weighted three times, which gives the student an end of term score of 84%.

TEST	SCORE	RELATIVE WEIGHT (coefficient)	SCORE WITH WEIGHTING (coefficient)	
Pre-colonial Africa	50%	1	50	
Neo-colonial Africa	85%	1	85	
Panafricanism	95%	3	285	
TOTAL		5	420	$\frac{420}{5} = 84\%$

Self-Referenced Scoring

Though it is difficult to do in large classes, self-referenced scoring measures an individual student's rate of progress relative to his or her own past performance. By comparing past test scores, a teacher can assess a student's rate of progress in a given subject area or across subjects to see where he/she is in need of help.

The advantages and disadvantages of Criterion-, Norm- and Self-Referenced scoring are listed below:

Type of Grading	Advantages	Disadvantages
Norm-referenced	<ol style="list-style-type: none"> 1 Allows for comparisons among students 2 Classes can be compared to other classes 3 Allows teacher to spot students who are dropping behind the class 	<ol style="list-style-type: none"> 1 If whole class does well, some students still get poor grades 2 If class as a whole does poorly, a good grade could be misleading 3 Does not allow individual progress or individual circumstances to be considered 4 The whole class (or large portions of it) must be evaluated in the same way 5 Everyone in class (or norm group) must be evaluated with the same instrument under the same conditions
Criterion-referenced	<ol style="list-style-type: none"> 1 Helps teacher to decide if students are ready to move on 2 Criteria are independent of group performance 3 Works well in a mastery-learning setting 4 Each individual can be evaluated on different material, depending on his or her level of achievement 	<ol style="list-style-type: none"> 1 It is difficult to develop meaningful criteria (therefore arbitrary cut-off scores are often used) 2 Presents unique problems in computing the reliability of criterion-referenced tests 3 Makes it difficult to make comparisons among students
Self-referenced	<ol style="list-style-type: none"> 1 Allows you to check student progress 2 Makes it possible to compare achievement across different subjects for the same individual 	<ol style="list-style-type: none"> 1 All measures taken on an individual must be taken with similar instruments under similar circumstances 2 Does not help you to compare an individual with his or her peers

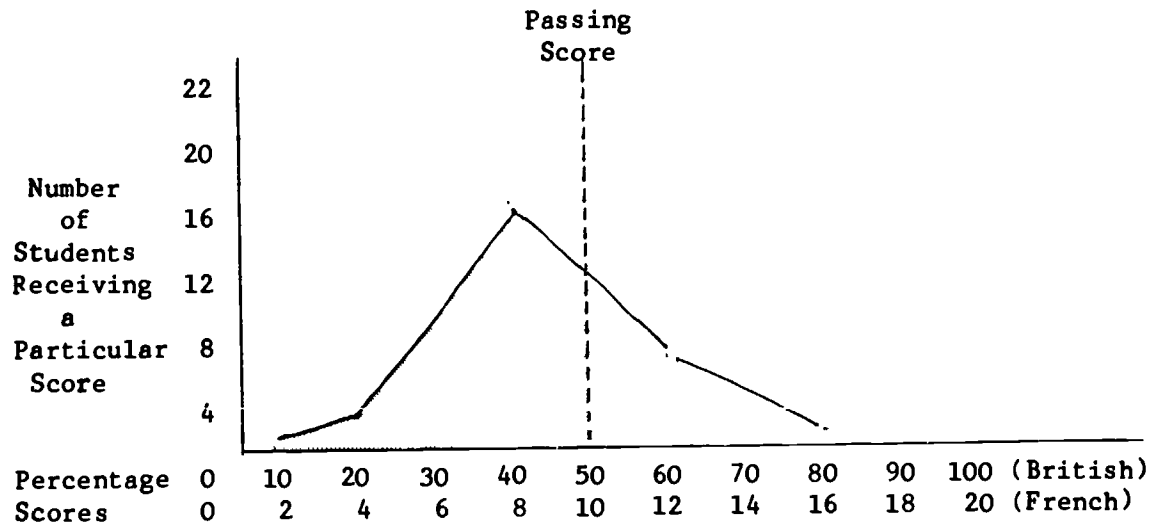
From *Classroom Teaching Skills*, James M. Cooper (1986) p394. Used by permission of D.C. Heath and Company, Lexington Massachusetts.

Percentile Ranking

Just as the raw scores for individual test items can be transformed to fit a certain testing model (e.g. Francophone testing - score/20), so can one set of test results be analyzed in relation to previous tests as well as other classes' performances. Percentile ranks offer a way to obtain an image of class performance on a test by calculating the percentage of persons who obtain lower scores. To obtain a percentile rank, divide the number of students below the passing grade by the total number of students who took the test. For example, if 10 students out of 30 get passing scores (50% and above), then the percentile ranking for that test would be 66% -- that is, 66% of that class rank in the lower fiftieth percentile.

Charting Student Performance

Just as percentile ranking can give a teacher a comparative measure of class performance, charting the results of a test can give the teacher an internal picture of how his/her class has performed as a whole. The graph below, for example, clearly and graphically illustrates that the majority of the students in the class failed the test.



To chart student performance:

1. Tally the number of students who obtain each score. (e.g. 4 students at 4/20 - or 20/100, 16 students at 8/20 - or 40/100.)
2. Plot each number on a chart as illustrated above.
3. Draw a vertical line intersecting the passing grade. (In the French system 10/20 is passing; in the British system 50/100 is passing).

The teacher can obtain a visual comparison of class performance over a semester or a year by superimposing charted results of multiple tests.

ACTIVITY BOX

1. You are teaching two different classes the same material, but one performs much better than the other on tests. Use three of the methods described above to measure the difference?
2. Having determined which students and/or classes are falling behind, list the specific measures you would take to improve their performance? How would you implement these measures?

Implications for Instruction

After constructing, administering, scoring and analyzing a test, a teacher might know how a class compares to itself, other classes and individual students. But what does it mean when half a class fails a test? Or when no one fails? In other words, what happens when a test or activity does not successfully measure what it is designed to measure? First of all, by asking some of the questions below, the teacher can identify the symptom or problem which must be addressed:

- o On the whole, did class performance vary from past, internal standards?
- o Did this class perform better or worse than other classes which took this test?
- o Did certain students do substantially better or worse than the rest?
- o Were the answers to any particular test items consistently correct or incorrect?

If the answer to any of these questions is "yes," then the teacher should determine the cause for this variation. Often, it is due to:

- o Discrepancies between material covered in class and material covered on the test.
- o Variations in the degree of difficulty of test items.
- o Factors which might make one class slower than another (e.g. afternoon vs. morning sessions).

- Personal dynamics within the classroom (e.g. trouble students, stronger students sitting next to weaker ones).
- Personal attitudes you the teacher may have toward one student or class which might have affected test construction, administration or scoring.

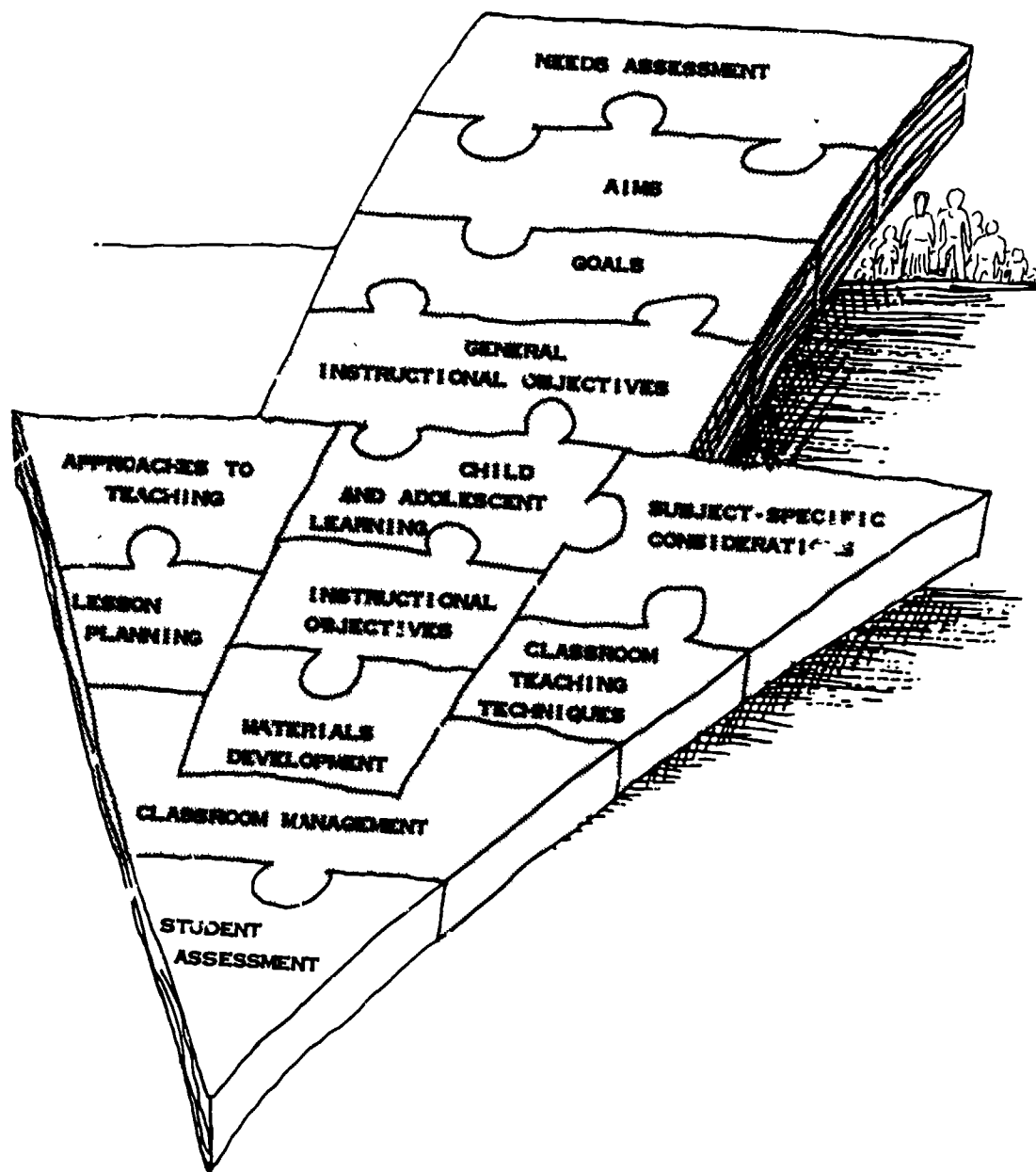
Once one of these factors has been identified as the probable reason for shortcomings in a test or activity, the teacher can then decide what change, if any, should be made in his/her instructional strategy. If material was covered on the test that was inadequately covered in class, the teacher may need to rewrite objectives and upgrade lesson plans. If one class seems slower or less responsive than another, the teacher may try to vary the techniques and materials they use to break old instructional styles and challenge the interests of all the students. If an evaluation of the situation indicates that personal dynamics within the class are the cause, the teacher may need to adjust his/her classroom management style.

Ultimately, assessment of student learning is an indirect assessment of teacher effectiveness. The teacher who has carefully evaluated assessment techniques according to the criteria above will find that such techniques will yield more than scores and grades; they will provide the teacher with a basis for assessing his or her own performance in the classroom. Most important, effective assessment skills will provide the teacher with a picture of student learning that reflects the teacher's ability to "read" his/her students and provide them with the best learning opportunities possible.

ACTIVITY BOX

Take a test you have given recently and use the information above to analyze it. Develop three instructional strategies that you would use to:

- a. make the learning activities for this unit (presentation of test material) more effective;
- b. better meet the learning needs of your students.



References:

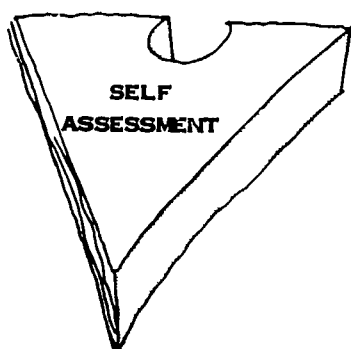
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SELF-ASSESSMENT

SELF-ASSESSMENT

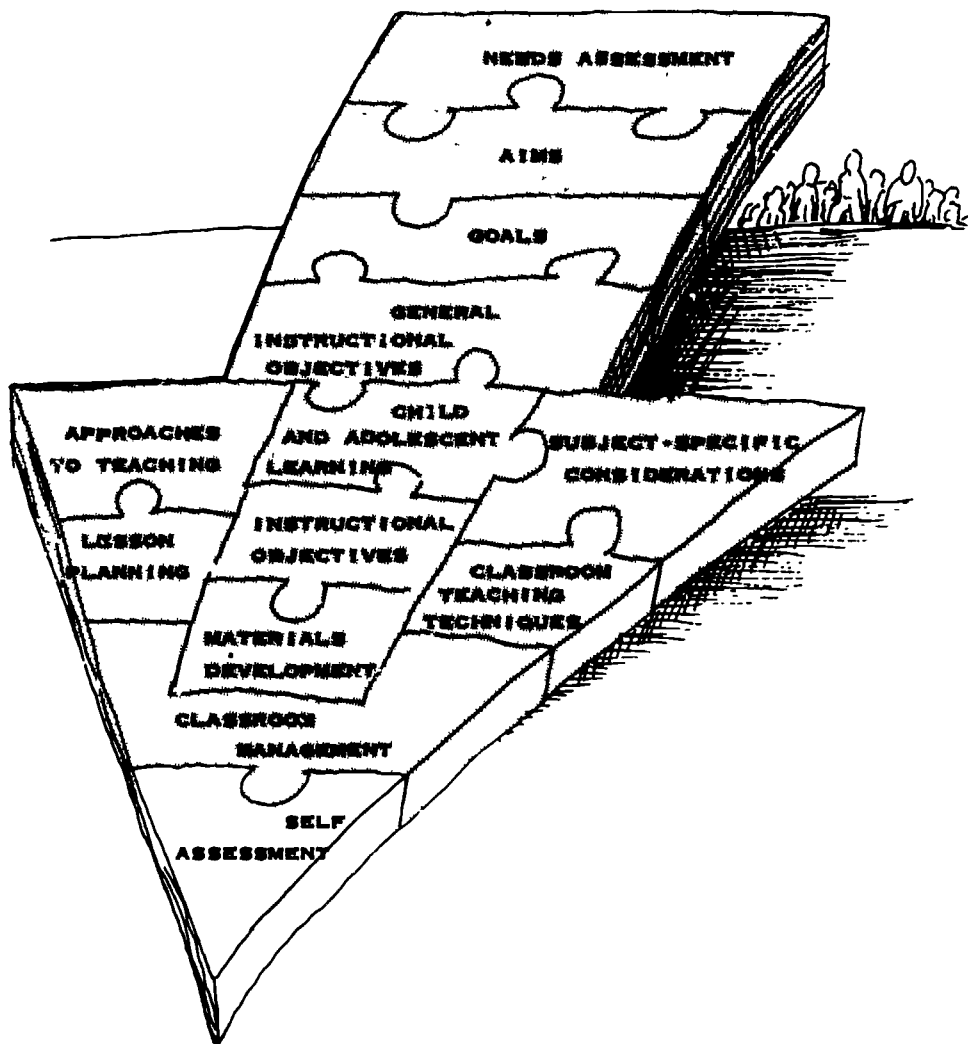


Self-assessment can be a powerful technique for the teacher who chooses to work independently to determine personal strengths and improve his/her teaching strategies and skills. The following suggests ways to self-evaluate teaching and classroom management styles. (Refer to the **Supervision** section of this manual for a more detailed description of observation techniques and procedures).

1. Prepare a checklist (such as the one which follows) of important pedagogical aspects mentioned in this manual as a way to periodically evaluate your teaching.
 - Are you clear about your objectives for the lesson?
 - Is the lesson well planned?
 - Are you going to be using visual aids in the lesson and are these visual aids prepared before the lesson?
 - Do the planned learning activities provide opportunities for student participation?
 - Are the activities varied and stimulating for the students?
 - Are directions presented in a clear fashion? Are you sure that the students understand your directions and explanations?
 - Do you greet the students before the lesson in a manner that lets them know that you are serious about your teaching and you enjoy being with them?
 - Do you include a review or warm-up exercise after you have greeted the students?
 - Do you give positive feedback to individual students or the whole class when their performance/behavior is good?
 - Do you address the students by name?
 - Do you talk to the whole class? Do you maintain good eye contact and project your voice so that all students in the class can hear you without difficulty?
 - Is your appearance culturally appropriate?

2. Ask other teachers to observe your teaching (using a checklist or guidelines similar to the one above)
3. Use class meetings as a way to get student feedback and at the same time to talk to students informally. (It must be remembered that students are not used to evaluating their teacher so comments may not be as candid and sincere as you might want).
4. Test students periodically either formally or informally to evaluate their understanding of material presented.
5. Use written evaluations by supervisors or students as a way of collecting feedback on your teaching effectiveness.

By evaluating yourself periodically, you can get valuable insights that will make your teaching not only more effective but also much more enjoyable.

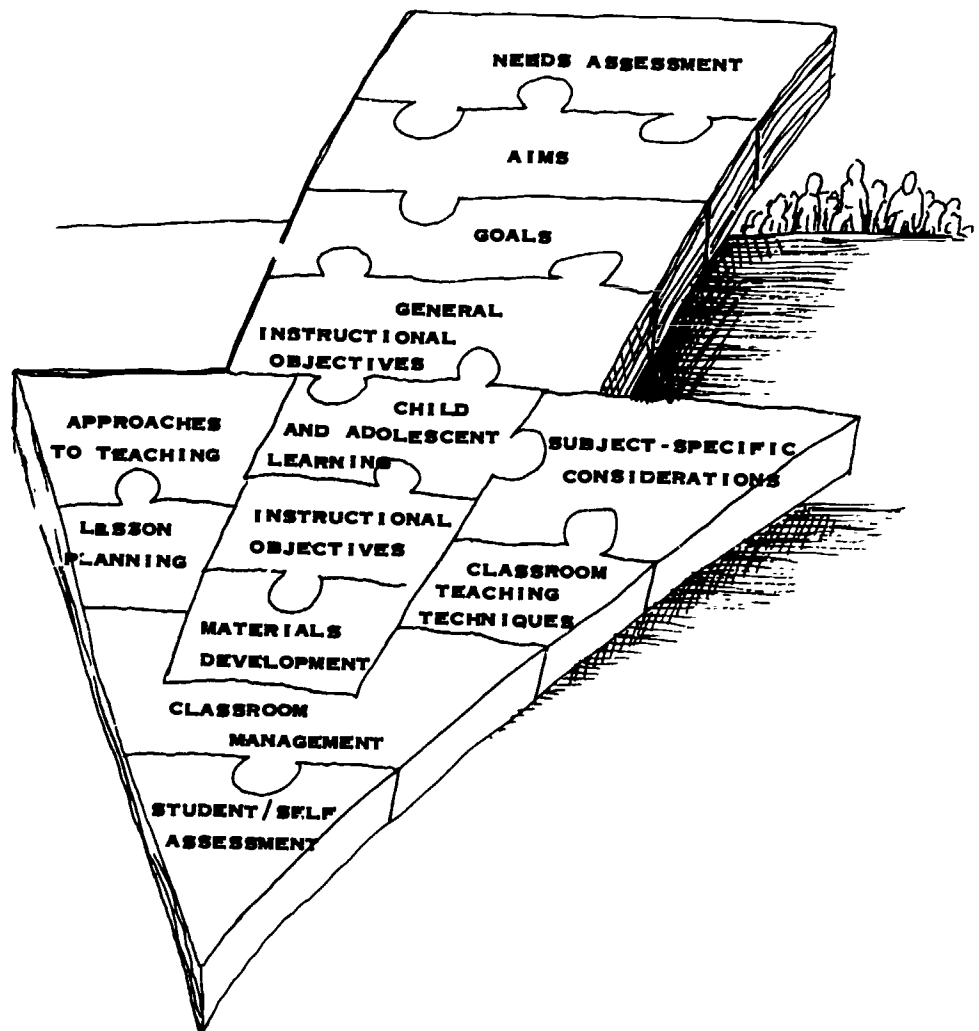


REVIEWING THE EDUCATIONAL PROCESS

REVIEWING THE EDUCATIONAL PROCESS

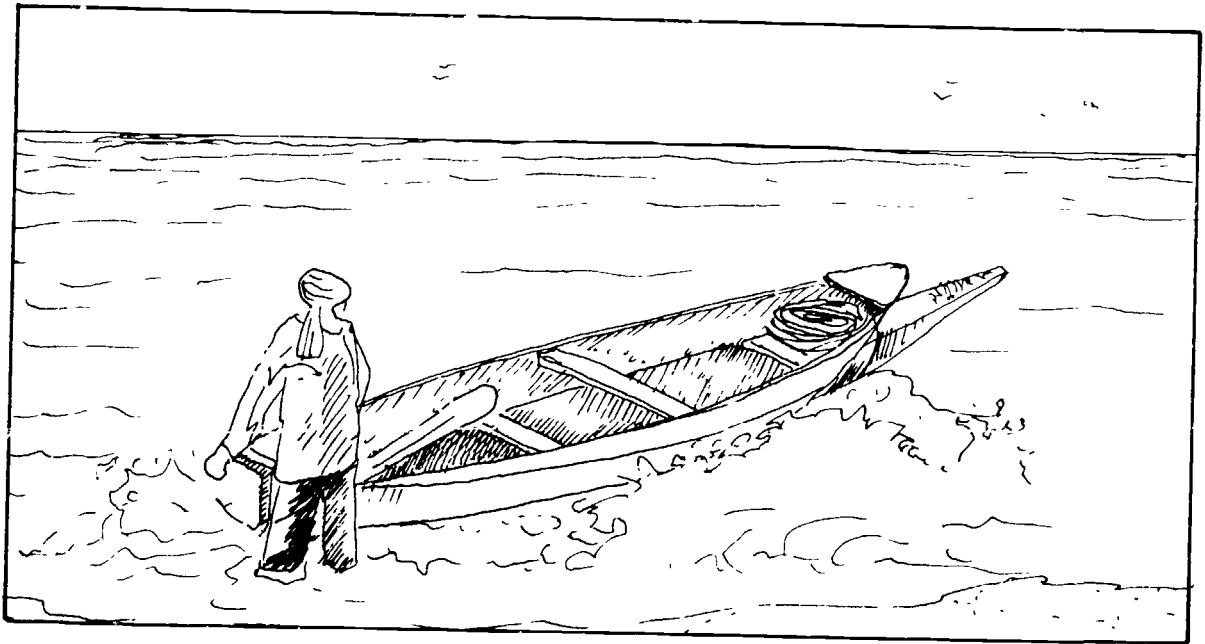
As the Pieces Fall in Place

The puzzle is now complete. Each of the pieces has been presented and reviewed, and the relationship to other pieces should now be clear.



The teacher should remember that there are many levels of curriculum decision-making: national, institutional, instructional and individual. Where some of these may be outside the direct control of the teacher, others are entirely his or her responsibility. Understanding the educational process as a whole can empower the teacher and make him/her an active participant in this process rather than an outside observer.

The final chapter of this manual, **Collaboration**, will help the teacher and teacher trainer alike to link up with colleagues and make the most of the resources at their disposal.



COLLABORATION

CHAPTER 3

CHAPTER 3 COLLABORATION

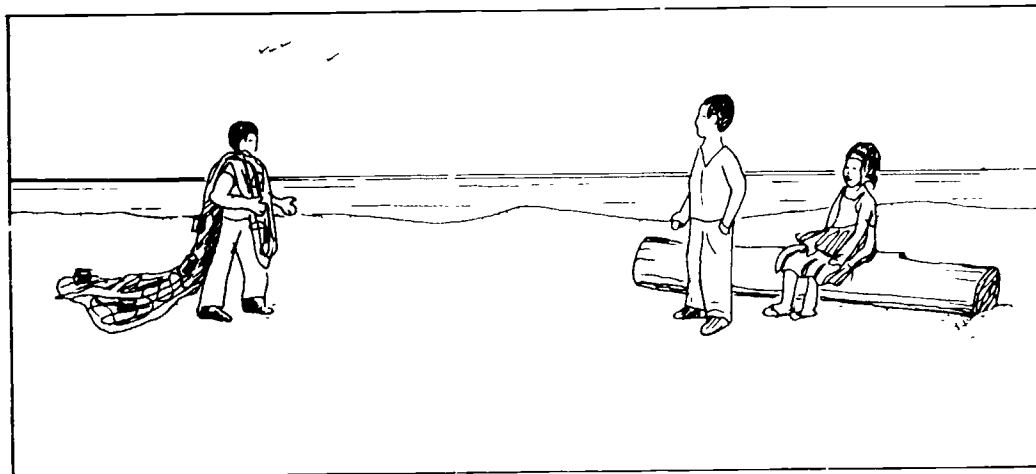
In an effort to meet Peace Corps' goal "to help host country governments meet their needs for trained manpower" this manual is designed to provide Peace Corps Volunteers with the information they need to train teachers. But standard teacher training topics alone do not address the thousand and one problems that arise when teaching in a Third World setting.

Upon leaving the teacher training college, the new teacher is usually assigned to a rural post. Because academic standards in rural schools are seldom on a par with those of population centers, where most teacher training colleges are located, the new teacher is immediately faced with a host of problems, some of which include:

- Overcrowded classrooms.
- A shortage of qualified teachers.
- A shortage of teaching materials.
- A lack of standardization of existing materials.
- A general lack of communication with other schools and institutions and consequent feeling of isolation and low morale.
- A lack of opportunities for continued education.
- A low salary.

In short, the rural sectors of most developing countries suffer from a chronic lack of material and human resources. It is therefore vital that Volunteers work hand in hand with host country nationals to create the kind of network necessary for the growth and sustenance of teachers in the field. This section will introduce the problems and possibilities related to collaboration in human and material resource development. Suggestions will be given and specific skills necessary for successful collaboration will be presented and discussed.

TAPPING HUMAN RESOURCES



Efforts to improve teaching conditions in developing countries start with human resource development. Two of the most difficult tasks related to human resource utilization are:

- making do with limited or insufficient resources, and
- knowing how to tap the resources available.

Given the critical shortage of resources in most developing countries, dealing with the first task is most often an exercise in frustration. Because of the lack of trained manpower and expertise, most developing countries rely heavily on foreign assistance to meet their manpower needs. Understandably, qualified people are often overextended, underpaid, and difficult to recruit for the smallest of tasks. Even so, the fact remains that many vital projects never get off the ground not for lack of qualified people, but for lack of knowledge about how to tap the human resource pool.

How do we tap our human resources to the greatest advantage? The following section presents some ideas about collaboration with colleagues. Some of these ideas can be tried by teacher-trainers; others might be more suitable for teachers or Peace Corps Volunteers in the field. The point here is that all types of collaboration such as these should be encouraged whenever and wherever possible.

In-service Training Workshops and Conferences

Most developing countries host In-Service Training sessions, usually in the form of subject-specific national teachers' conferences. These provide an excellent opportunity to meet other teachers experiencing

similar problems. They also provide an opportunity to discuss and present new ideas, make recommendations to the ministry regarding educational policies and practices, and form networks. One important role such conferences play is modeling -- by following the format of lectures, presentations and workshops typically found at national teachers' conferences, teachers can return to their assigned towns and organize similar activities. For example, if there are five English teachers in one town, they can organize their own "mini-conference" in a local school and share teaching methods, materials, and ideas.

Advisory Groups

Because academic standards can vary dramatically from town to town, and because of the shortage of qualified inspectors in most developing countries, the most available qualified consultants are often local teachers. Not only do they have the "hands on" experience and expertise in their fields, but because their children, neighbors and friends attend the schools in which they teach, they also have a vested interest in the improvement of educational standards. The formation of advisory groups to consult with other teachers, school administrators, members of parents' associations, and local officials can open the lines of communication and the channels of material and human resource exchange.

Classroom Observation/Critiquing

Most teachers are understandably threatened by any outsider who comes and observes their classes. However, there is enormous value in being observed and critiqued, if for no other reason than to get one or two new ideas about teaching. One method of encouraging classroom observation is to ask a colleague whose opinion you respect to come observe and critique your lesson. At first, most host country nationals resist such ideas since they are reluctant to insult the expatriate "expert." But if the invitation is posed respectfully and sincerely, and if a certain level of trust already exists, host country nationals will often oblige you. In this way, you will serve as a model which can then be followed by your colleagues. You also experience the additional advantage of having your own teaching style observed by a resident expert.

An important thing to remember about classroom observation is that critiquing does not mean criticizing in the negative sense. Simply describing what you saw, reinforcing positive elements and inquiring about questionable ones can constitute more feedback than the teacher has received since he/she left the teacher training college (see **Feedback/Critiquing** below).

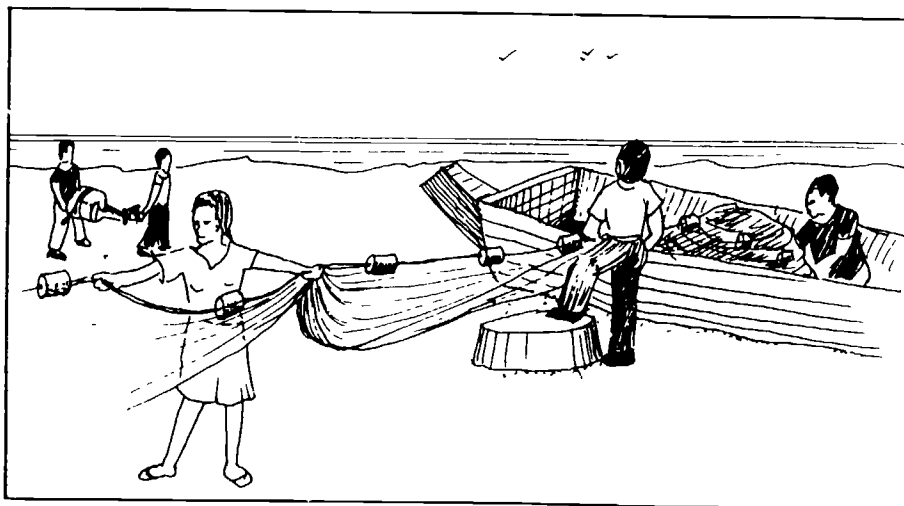
Team Teaching

Another approach to in-class collaboration is team teaching. If a teacher is unwilling to observe or be observed, perhaps he/she might be willing to co-teach a class with you. For example, if you are teaching "story telling devices" in an English class, one of your English-speaking colleagues might be able to relate some local history using the same device. Likewise, if you are presenting a geometry lesson on circles and circumferences, a science teacher might be recruited to illustrate with drawings or models of planets, moons or stars. Or perhaps more simply, you can ask another teacher to co-teach a class with you on an ongoing basis -- an exercise which would facilitate team research, lesson planning, teaching, testing, and observation.

ACTIVITY BOX

1. Of all the teachers' conferences you have ever attended, what session made the greatest impact on you? How was the session presented? Could you or one of your colleagues present it or adapt it so that it could be presented to teachers at your school? How?
2. Are any of your colleagues currently teaching subjects which relate to the subject(s) you are teaching? How could the two subjects be taught jointly?

TAPPING AND DEVELOPING MATERIAL RESOURCES



Because material resources are always in short supply, curriculum and materials development is always an issue. As with human resources, two basic questions are:

- How and where can needed materials be procured? and
- How can we mobilize the resources we already have?

These questions and the issues associated with them are dealt with in great detail in the **Materials Development and Resource Utilization** section of the Manual. One particularly effective way to share materials and techniques among teachers involves the creation of newsletters and material exchange or resource centers. Some of the functions these serve are to:

1. PROVIDE AN INCENTIVE TO IMPROVE EDUCATIONAL STANDARDS by:
 - Opening up a channel through which students and teachers can read and share their own contributions.
 - Giving teachers new ideas for lesson planning, creative classroom techniques, etc..
 - Encouraging further innovation.
2. PROMOTE A SENSE OF LOCAL IDENTITY AND PRIDE by:
 - Disseminating locally-generated knowledge, and
 - Providing a means of publicizing local and national issues.

3. RAISE AWARENESS OF EDUCATIONAL ISSUES by:

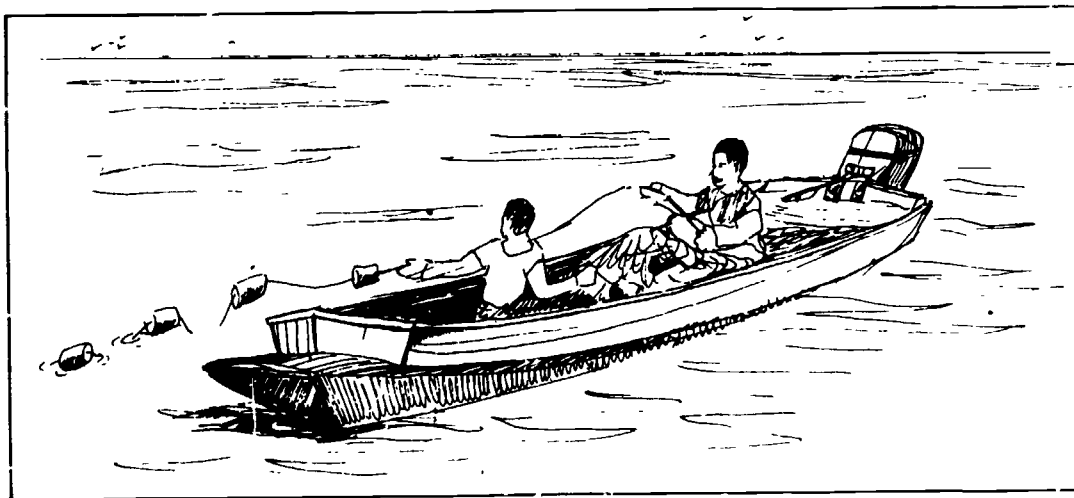
- Revealing material and curricular discrepancies from region to region, and
- Informing the ministry of educational needs.

Admittedly, these goals are ideal and in many cases simply unattainable. Resistance to innovation often proves to be a mightier force than the greatest enthusiasm. Still, to the extent that these goals are desirable by Volunteers and host country nationals alike, they are worth bearing in mind and pursuing to the extent possible.

ACTIVITY BOX

Does your school currently publish some kind of regular newsletter? If not, what material resources exist at the school with which to publish one?

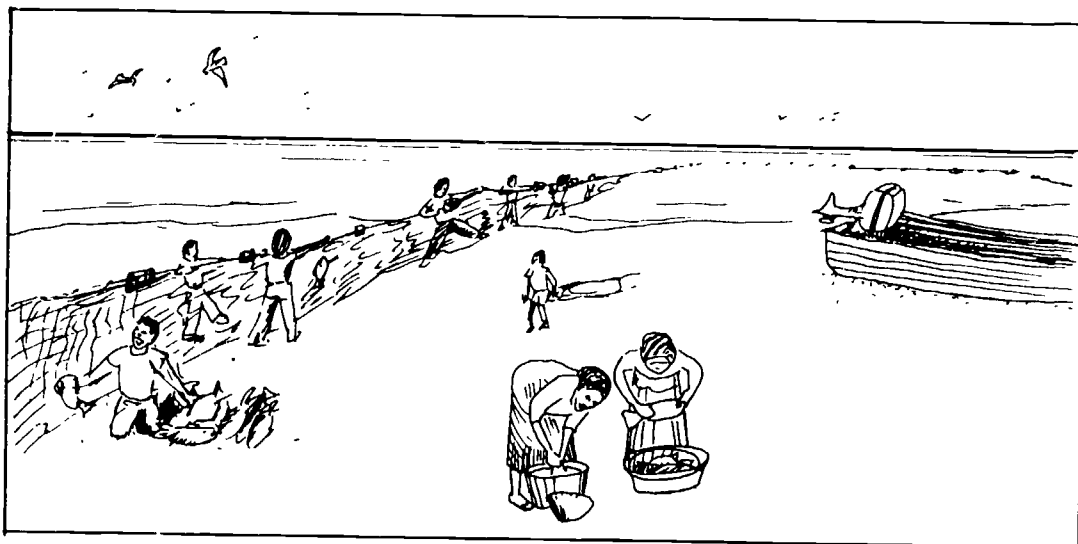
INFORMAL COLLABORATIVE ACTIVITIES



Though informal activities often do not receive official recognition, they can prove to be the most effective of all collaborative activities. Because most people "don't care how much you know until they know how much you care," personal contacts and friendships can make a much deeper impact on your colleagues than the most prestigious of projects. Activities ranging from parties and socials to weekly lunches, from English clubs to study groups can serve the dual purpose of sharing information and generating good will. Such activities also expand your knowledge of the community and base of potential collaborators who can be

tapped for future activities. Most importantly, informal activities will enable you to get to know local people on a personal level which can develop into lifelong friendships -- probably the most meaningful and long-lasting product of your work as a Volunteer.

COLLABORATION SKILLS



Collaboration does not just happen; it occurs as a result of much hard work, risk-taking, research, more hard work, and patience. Because of the many facets of collaboration, many skills must be learned in order to work successfully with others, especially in the areas of organization, communication, working in groups, feedback and leadership.

Organization

While the need for collaboration might be self-evident, the means by which it is achieved is not. An idea alone is not enough; to transform an idea into reality requires a coordinated effort which involves defining the objective, determining the availability of resources, formulating and monitoring a plan of action.

1. **Define the objective.** Identifying an area of need is easy; deciding what to do about it is more difficult. Say, for example, students at one level do not have workbooks to accompany in-class textbooks. The need might be thus stated: students need workbooks. The first question you should ask is: **Is this truly a need?** By checking with colleagues and students you can determine if others perceive this as a need that deserves attention. If the need is felt by others you will be ready to decide what to do about it. A statement of the problem above implies a base objective: workbooks must be made available to students who need them. But **what do you want to do about it?** Write your own book? Establish a book-writing team? Request books and/or

funds from the government? Each idea suggests another question: **Why do you want to do it?** If the reason is because you feel a need for the standardization of learning materials, then a standardized workbook must be obtained. If, on the other hand, the reason is to help students understand their in-class textbook assignments, perhaps something other than a workbook might suffice, like special study sessions, supplementary lessons, or tutoring. In other words, it is important to provide a rationale as a type of "litmus test" for all possible alternatives before the objective is finally defined.

2. Determine what your resources are. The best litmus test in any collaborative effort will always be the opinions of other people. By asking involving colleagues in the process of defining problems and possible solutions, the chances of addressing a clearly felt need are greater; participation will also increase a hundred fold, as will the project's chance of success. Hence, instead of asking: How can I do this? the question should be recast: **Who can help me do this?** In order to be sure that all potential collaborators have been considered, it is wise to **brainstorm a list of potential resource people.** The key here is to defer judgement; some names might not seem immediately relevant, but in the process of generating such lists, one name might suggest another, or the objective might change altogether. After generating a list of potential collaborators, it is time to **determine who can do what.** A merchant probably will not want to talk about the Weimar Republic, but he would probably wax eloquent on the subject of buying and selling produce --an excellent application of basic mathematics. It is also all too easy to assume that the local carpenter probably knows nothing about eastern religions. This may be true, but until he is asked, who knows? It is better to flatter someone by assuming they know a lot than to lose the benefit of their expertise by assuming they know nothing. Once potential collaborators and duties have been determined, it is necessary to **discover what material and financial resources are available.** This is the beginning of the research stage, at which all relevant power structures and potential funding agents are identified and analyzed from the local to the national level. The overriding assumption should be that all persons, groups and official agencies have access to some material and financial resources, so it is important that all relevant parties be included in the research process: colleagues, school administrators, ministry officials, parents' groups, civic groups, subject committees, educational institutes. etc. (See the section on **Comparing Educational Systems** for more information on this approach.)

3. Develop a plan of action. Now that you have a list of human, material and financial resources, a plan of action must be devised to **identify the whos, whats, whens, and wheres.** This can be done most easily on a step-by-step basis. For example, Step 1 for the workbook project cited above might be "soliciting help": Over the next month (**when**), John and I (**who**) will ask 10 people from our school (**where**) if they are interested in co-authoring a workbook (**what**). While developing a

plan of action, it is advisable to **identify a key resource person who is knowledgeable in the field**. This can help not only to keep the process moving forward, but also to avoid some of the difficulties that inevitably arise for sheer lack of experience. Finally, once a plan of action has been drafted, **create a detailed timeline of activities**. This will serve not only as a criterion against which you measure your progress, but also will help in additional planning (for example, when certain materials should arrive, when to arrange for meetings, etc.).

4. **Monitor the implementation.** The biggest enemy of successful collaboration is low morale. It is quite common to get discouraged when plans get scuttled, when people do not respond favorably, or when nothing seems to be working. If you **keep lots of written notes**, it is possible to take a break, then return to the task of assessing who is appropriate for what. Keeping written notes also provides a means by which you can **build in an evaluation system**. Using your plan of action as a reference, decide what criteria you will use to determine the success of your project. Should it be accomplished in a month? A year? Should it result in improved student responsiveness in class? In improved grades? Specific indicators should be established so your progress can be evaluated both during and after the project. If some criteria are not met, a decision must be made either to change the way in which the project is being pursued, or change the criteria. In other words, you might want to **revise** the project and/or the project criteria **as needed**. If original plans prove to be unrealistic, it is better to revise expectations than to become discouraged that all problems were not foreseeable or that the project turned out to be bigger or more difficult than planned.

ACTIVITY BOX

1. Ask the teachers in your school: "If you could do anything to improve educational standards at your school, what would it be? What efforts have been made in the past to make this happen? Who would know?"
2. Make a list of five colleagues, five administrators, and five community members who might be able to and/or interested in working for the improvement mentioned in activity #1.

Communication

The process of communication is twofold: sending and receiving information. In particular, verbal communication involves talking and listening. When talking, care must be taken to:

- Be as clear and concise as possible.
- Refrain from being offensive.
- Consider the listener's position.
- Be aware of assumptions made in statements.
- Refrain from talking too much.

Active engagement in listening is called active listening for which three considerations are paramount: comprehension, acceptance and processing. In order to listen actively, you must:

- Pay attention to both verbal and nonverbal messages.
- Concentrate on what the other person is saying, not on what you want to say next.
- To the best of your ability, refrain from judgement.
- Try to empathize with both verbal and body language.
- Ask questions to show interest or for clarification.
- Paraphrase and/or summarize.

Feedback/Critiquing

The processing aspect of listening can be redefined as feedback and is such an important skill that it warrants special consideration here. Briefly, feedback is a communication to a person (or group) which gives that person information about how he/she affects others. In order to be effective and fair, feedback must be objective, well-timed and validated. To that end, feedback must be:

- **Descriptive** rather than evaluative. By describing one's own reaction, it leaves the individual free to use it or to use it as he/she sees fit. By avoiding evaluative language, it reduces the need for the individual to react defensively.

- o **Specific** rather than general. To be told that one is "dominating" will probably not be as useful as to be told that "just now when we were deciding the issue you did not listen to what others said and I felt forced to accept your arguments or face attack from you."
- o **Take into account the needs of both the receiver and giver of feedback.** Feedback can be destructive when it serves only our own needs and fails to consider the needs of the person on the receiving end.
- o **Directed toward behavior which the receiver can do something about.** Frustration is only increased when a person is reminded of some shortcoming over which he/she has no control.
- o **Solicited** rather than imposed. Feedback is most useful when the receiver himself has formulated the kind of question which those observing him/her can answer.
- o **Well-timed.** In general, feedback is most useful at the earliest opportunity after the given behavior, depending on the person's readiness to hear it, support available from others, etc.
- o **Checked to insure clear communication.** One way of doing this is to have the receiver try to rephrase the feedback he/she has received to see if it corresponds to what the sender had in mind.

Just as feedback skills can facilitate constructive interpersonal communication, so can critiquing skills foster constructive evaluation of a lesson. In addition to the feedback skills mentioned above, a good critiquer should:

- o **Let the person being critiqued give a self-critique first.** More often than not, he/she will already know their areas of strength and weakness. By letting him/her self-critique first, egos go unbruised and much of your job is already done.
- o **Start with something positive.** It is much easier and more encouraging to build on a strength than to eliminate a weakness. Starting with something positive also decreases the tendency toward defensiveness.
- o **Keep negative critiques (or criticisms) to a minimum.** Most people can handle one or two critiques; any more than that is not only discouraging but difficult to act on. Change comes slowly.

- **Accompany each criticism with one or two suggestions for improvement.** If the critiquer can find blame but cannot recommend something better, the person being critiqued is unfairly faced with two difficult tasks: abandoning an old technique and creating a better one.
- **Each criticism should be accompanied by at least one example.** It is not very helpful if the critiquer says, "At one point, your visual aid was inappropriate" if he/she cannot remember what it was.
- **If possible, end on a positive note.** The person being critiqued will make the greatest progress if he/she believes it is possible. It is therefore important not to demoralize, but to encourage.

ACTIVITY BOX

1. What do you see as the biggest difference between giving feedback and critiquing?
2. What do you feel are your greatest areas of strength in giving feedback and critiquing? Your greatest areas of weakness?

Working in Groups

To prepare for working in groups, a large part of a successful collaboration strategy, the teacher should understand the basic principles of group dynamics and the various functions group members perform. When working in groups, it is important to maintain a balance between process and task functions.

Process functions include:

- **ENCOURAGING:** being friendly, warm, responsive to others, praising others and their ideas, agreeing with the accepting the contributions of others.
- **MEDIATING:** harmonizing, conciliating differences in points of view, making compromises.

- **RELIEVING TENSION:** draining off negative feeling by jesting or throwing oil on troubled waters, diverting attention from unpleasant to pleasant matters.
- **FOLLOWING:** going along with the group, somewhat passively accepting the ideas of others, serving as an audience during group discussion, being a good listener.
- **STANDARD SETTING:** expressing standards for the group to use in choosing its subject matter or procedures, rules of conduct, ethical values.
- **GATE KEEPING:** trying to make it possible for another member to make a contribution by saying, "We haven't heard from Karamo yet," or suggesting limited talking time for everyone so that all will have a chance to be heard.

Task functions include:

- **INITIATING:** suggesting new ideas or a changed way of looking at the group problem or goal, proposing new activities.
- **INFORMATION SEEKING:** asking for relevant facts or authoritative information.
- **INFORMATION GIVING:** providing relevant facts or authoritative information or relating personal experience pertinently to the group task.
- **OPINION GIVING:** stating a pertinent belief or opinion about something the group is considering.
- **CLARIFYING:** probing for meaning and understanding, restating something the group is considering.
- **ELABORATING:** building on a previous comment, enlarging on it, giving examples.
- **COORDINATING:** Showing or clarifying the relationships among various ideas, trying to pull ideas and suggestions together.
- **ORIENTING:** defining the progress of the discussion in terms of the group's goals, raising questions about the direction the discussion is taking.
- **TESTING:** checking with the group to see if it is ready to make a decision or to take some action.

- **SUMMARIZING:** reviewing the content of the past discussion.

These functions are not needed equally at all times by a group. Indeed, if a given function is performed inappropriately, it may interfere with the group's operation -- as when some jester relieves group tension just when the tension is about to result in some real action. But often, when a group is not getting along as it should, a diagnosis of the problem will probably indicate that nobody is performing one of the functions listed above that is needed at that moment to move the group ahead.

ACTIVITY BOX

1. When you work in groups, do you find yourself playing one role more than any other? Which one(s)?
2. How does your role affect the dynamics of the group?
3. Do you ever wish you could stop playing a particular role or start playing another one? How can you make this happen?

Leadership

Just as group dynamics are the results of process and task functions, so too are authority and leadership. The balancing of concern for task, or production, and concern for people may help to distinguish the authority figure or leader from other members of the group, but in reality these are simply another dimension of group membership.

The leader performs process and task functions like other members of a group. The biggest difference between leader and group member tends to be one of vision and the ability to keep the group on task in order to reach this vision. The role of "leader" often emerges from within the group and is characterized by the following functions:

- Managing anxiety and tension
- Managing the creative process
- Challenging the group
- Keeping the group on task
- Leading the group towards a particular vision

In other words, a good leader influences a group, but does not wield authoritarian power: the more a leader can encourage equal participation, the better a leader he/she is.

An authority figure is often imposed from without or established by consensus from within. The functions most often associated with this role are:

- o Establishing lines of authority
- o Keeping communications open
- o Managing time and space
- o "Protecting" the group

It is the task of the skillful collaborator to recognize the distinctions between these two roles and the times, within group development, that these roles are most crucial. In the earlier stages of group development, members tend to depend on authority figures quite heavily. It may be possible, after a time, to apportion the tasks associated with the authority figure to other members of the group and step back into the more guiding role of the leader. As group members feel more comfortable with their roles and the tasks at hand, they will become less dependent on any single individual (e.g. the leader) and more able to work democratically. Thus, the collaborator may need to accept the responsibility for authority or leadership in the early stages of group development, but the ultimate goal of any collaborative venture should be to share more and more of the responsibility and decision-making power with other group members.

ACTIVITY BOX

Think of a time when you worked in a group, was there a noticeable leader? List the things that you think made him or her a good leader.

Networking

Through collaboration, interpersonal relationships can evolve into a working group which can, in turn, collaborate with other groups. This process, often called networking, is at once an ideal and essential outcome of collaboration.

The metaphor of the net is apt. By itself, a strand of twine can do little more than bind, attach, or draw. In interlocking connection with

other strands of twine, however, it becomes capable of catching and holding things which might otherwise slip by.

By themselves, people can do little more than survive, put in an honest day's work, and dream. It is only when we "connect" with others that we are able to combine our physical and creative energies into more productive and worthwhile endeavors. The greatest legacy a development worker can leave is a network of interdependent groups of host country nationals actively engaged in the ongoing process of educational development. By collaborating with others, we can catch more fish than we ever dreamed possible -- enough, perhaps, to eat for a lifetime. Ambitious? Certainly. Yet, in the end, it is a worthwhile goal.

APPENDIX

CONTENTS:

REFERENCE:

Flanders' Interaction Analysis

Chapter 1 - Supervision

Developmental Profile

Chapter 2 - Child and
Adolescent Learning

Lesson Plan Format

Chapter 2 - Lesson Planning

LESSON PLAN FORMAT

Subject: _____
Topic: _____

Date: _____

Objectives:

Time	Activity/Procedures	Materials

Evaluation:

Comments:

Since 1961 when the Peace Corps was created, more than 80,000 U.S. citizens have served as Volunteers in developing countries, living and working among the people of the Third World as colleagues and co-workers. Today 6000 PCVs are involved in programs designed to help strengthen local capacity to address such fundamental concerns as food production, water supply, energy development, nutrition and health education and reforestation.

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