DOCUMENT RESUME

ED 339 447 JC 920 010

AUTHOR Johnson, Philip E.
TITLE Creative Teaching in the Community College: Guidelines for Associate Faculty.
INSTITUTION Pima Community Coll., Tucson, Ariz.
PUB DATE 88
NOTE 105p.
PUB TYPE Guides - Classroom Use - Teaching Guides (For Teacher) (052) -- Tests/Evaluation Instruments (160)

EDRS PRICE MF01/PC05 Plus Postage.
DESCRIPTORS *Adjunct Faculty; Classroom Techniques; Community Colleges; Instructional Improvement; *Instructional Innovation; *Part Time Faculty; Questionnaires; Student Characteristics; Student Motivation; Student Needs; *Teacher Effectiveness; *Teacher Improvement; Teacher Responsibility; *Teaching Methods; Two Year Colleges

ABSTRACT

Developed by a fulltime faculty member at Pima Community College (PCC) in Tucson, Arizona, this booklet is intended to provide concepts and techniques to help Associate Faculty develop the most interesting and useful teaching practices possible. Chapter 1 discusses the importance of education, the purposes of the booklet, and reasons for teaching; and includes a self-assessment instrument to give teachers a sense of their individual teaching styles, teaching effectiveness, and ways of becoming a better teacher. Chapter 2 focuses on student needs, including a profile of PCC's highly diversified student body, a discussion of students' motivations, and brief comments on the implications of such a diverse student body who represent a cross-section of the larger population and who are mostly adults. Chapter 3 touches on some of the important philosophical groundings of education as they relate to community colleges and adult education. Included are sections on basic values in teaching, process education, experiential learning, and principles of learning. Chapter 4 deals with motivation, focusing on conditions negatively affecting motivation (e.g., boredom, discomfort, anxiety, humiliation, and frustration) and reviewing instructional techniques that undermine or enhance motivation. Chapter 5 offers guidance on planning for instruction, including principles of learning and instruction and procedures for planning. In chapter 6, various teaching methods and classroom techniques that have been effective with adults are described. Chapter 7 reviews traditional teaching techniques such as lectures, discussion groups, reading assignments, and the use of various media, offering suggestions on how to use these techniques most effectively. Chapter 8 considers facilitative teaching techniques in terms of pedagogy and androgogy, and specific techniques such as acquaintance, warm-up, and data collection activities (e.g., "human bingo" and cross-interviews); discussion techniques; simulations; role play; laboratory methods; assigned reading and research; and instrumentation. After chapter 9 introduces various other issues such as testing and evaluation, homework, and grading, chapter 10 presents a post-test to help teachers evaluate themselves. A 62-item bibliography is included.

CREATIVE TEACHING IN THE COMMUNITY COLLEGE:

GUIDELINES FOR ASSOCIATE FACULTY

by

Philip E. Johnson, Ph.D.

Downtown Campus
Pima Community College
Tucson, Arizona

Fall, 1988

FOREWORD

These teaching guidelines were developed by Philip E. Johnson, Ph.D., a fulltime faculty member on the Downtown Campus. This project, while sponsored by and coordinated through the offices of the Instructional Deans and Educational Development, reflects the years of study and research that Dr. Johnson has devoted to the topic. These guidelines, intended to assist Associate Faculty in their teaching techniques, explore students' needs, motivations, and values, as well as important principles in the community college environment, and provide a range of planning and teaching techniques to meet these needs.

We are interested in your comments and suggestions for future editions of these guidelines.

Tim Murphy
Educational Development Officer

11/111

ACKNOWLEDGEMENTS

This booklet is the product of the efforts and creativity of many people. Grateful acknowledgement is made by the author to the following persons for their contributions:

- Ms. Kathie Alexander, Director of Operations for the Tucson Division of the University of Phoenix, who allowed direct use of their handbook, "Facilitative Teaching," from which extensive sections were taken.
- Ms. Janet Vasilius, Associate Faculty member and member of the Board of Governors of Pima Community College, for help in the initial planning of the content.
- Dr. Ralph Wahrer, Associate Dean for Occupational Programs at the Downtown Campus, for his continuing support.
- Ms. Joan Arnold and Ms. Melanie Kishi, Associate Faculty, for their review of early drafts and helpful suggestions.
- Mr. Edward Blair, Associate Faculty, for his careful and effective editing.
- And especially, all of the members of the Associate Faculty, Downtown Campus, who responded to the questionnaire which elicited information about the needs of Associate Faculty and on which the booklet is based.

CONTENTS

Chapter One

INTRODUCTION

IMPORTANCE OF EDUCATION

If we could look back at this time in history from the vantage point of several millennia in the future, we would probably see that in our age education was mankind's most important endeavor. Education has always been the foundation of any civilization. But now, at the beginning of a vast new information age, an age when we are beginning to understand not only the physical world about us but also the nature of our own selves, it is the universal imperative. Without an increasingly educated populace, all our bases would stagnate: business, medicine, law, sociology, psychology, technology, science. Education is basic to all important personal and societal advances.

Good teachers make an enormous difference. At Pima Community College, we all realize that the bottom line for the entire PCC complex – classrooms and other facilities, Board of Governors, administrators, supporting staff, fulltime faculty and associate faculty – is student learning. Unless we work properly with students in classrooms, all other resources are wasted.

Even more important is the central theme of this booklet: the concept that good teaching results from a personal relationship between teacher and student.

The college, therefore, supports the development of excellence in teaching – and particularly wishes to support to the needs of Associate Faculty.

Associate Faculty account for over half the instruction at Pima College. They bring an astounding wealth of expertise direct from the community, up-to-date knowledge about their field, and the sort of enthusiasm our students desperately need. But some Associate Faculty not formally educated in teaching techniques may find guidelines in the arts and crafts of teaching to be helpful

THE PURPOSE OF THIS BOOKLET

The purpose of this booklet is to provide concepts and techniques to help Associate Faculty develop the most interesting and useful teaching practices possible. This is not a new collection of tips, but rather a way to help faculty generate their own ideas and

appropriate teaching patterns. Since teaching is a rather personal activity, much like interpersonal communication, a cookbook of tips is of limited usefulness. The booklet presents general ideas, theories, and models – as well as techniques for adaptation of these into your own personal style. But it's crucial that you use your own philosophy in the development of a teaching pattern. The booklet therefore attempts to model good teaching itself.

Welcome to the Information Age – and the learning explosion! Our community college clientele are interested in learning just about anything these days – from practical skills like welding, to philosophy and history, as well as the whole range of liberal arts. Many people are retraining for second and third careers, discovering new hobbies, and developing new life-styles. The community college, the most democratic and diverse of American educational institutions, responds to the fact that there are a multitude of reasons why people are interested in learning.

This booklet also presents information on the characteristics of the student body at PCC. Particular emphasis is placed on adult learners since the average student age now is approaching 30 and increasing. We will discuss a number of values and principles that are applicable to community college education. A section on motivation will help you understand mechanisms you will find valuable to help these kinds of students want to learn, and to help them accept responsibility for their own learning needs.

The three largest chapters of the booklet deal with your activities in the classroom, including the concept of curriculum and teaching methods. What do we teach? How do we teach it? Other chapters include information on grading students, evaluating one's self and finding support mechanisms within the college for the arts and crafts of teaching. A brief concluding chapter is followed by a list of suggested reading for those who are interested in more deeply exploring the subjects presented here.

TEACHER'S SELF-TEST

Before you go any further,take this *Teacher's Self-Test* to get a sense of what topics are included in teaching and to develop more of an understanding about what things we can learn when we consider the concept, "How do we become better teachers?"

Take the self-test for your own information. It may give you some clues about your teaching style and about your teaching effectiveness.

DO YOU KNOW YOUR SUBJECT, AND LIKE IT, AND WANT TO SHARE WHAT YOU KNOW ABOUT IT WITH OTHERS?

YES NO

___ ___ I like to talk shop.

___ ___ I think about my subject a lot.

___ ___ I enjoy reading and keeping up with my field.

___ ___ I can answer most impromptu questions about my subject.

___ ___ I enjoy sharing what I know about my subject with others.

DO YOU KNOW WHAT YOU WANT YOUR STUDENTS TO LEARN, UNDERSTAND, AND BE ABLE TO DO?

YES NO

___ ___ I have listed the theories, concepts, and practices I want my students to understand (the course goals).

___ ___ I have written objectives for each course goal.

___ ___ My students have copies of these goals and objectives.

___ ___ I have discussed these goals and objectives with my students.

DO YOU PLAN YOUR TEACHING TO HOLD YOUR STUDENTS' ATTENTION?

YES	NO	
___	___	I use a variety of ways to teach.
		They include the following:
___	___	*lecture
___	___	*blackboard
___	___	*films, slides, overheads
___	___	*guest lecturers
___	___	*question/answer session
___	___	*discussion sessions
___	___	*problem solving
___	___	I give examples of major points.
___	___	I give common sense applications of major points.
___	___	I give or ask for applications to day-to-day living.
___	___	I reinforce or repeat important points.
___	___	I use humor.

DO YOU USE ASSIGNMENTS TO MAKE SURE THE COURSE OBJECTIVES ARE MET?

YES	NO	
___	___	The assignments are keyed to the course objectives.
___	___	I use three or four different kinds of graded assignments.
___	___	I offer a few options on assignments.
___	___	I have weekly assignments.
___	___	I tell students why the assignments are being made, what I expect them to learn, and the value of the assignment as it relates to their grades.

ARE YOU ORGANIZED?

YES	NO	
___	___	I start and finish the classes on time, including time for class discussion and summarization.
___	___	I follow the course outline.
___	___	I cover all of the topics listed.
___	___	I have a course outline for each student. It contains:
___	___	*name and number of the course.
___	___	*meeting time and place.
___	___	*my name and how I can be reached outside of class.
___	___	*class by class calendar with topics, assignments, due dates, exam dates.
___	___	*system of grading, policy on attendance, list of texts.

DO YOU TEACH TO YOUR STUDENTS AS INDIVIDUALS?

YES	NO	
___	___	I take attendance.
___	___	I call students by name.
___	___	I talk to students and look at them.
___	___	I monitor students' progress and talk to them about it.
___	___	I return papers right away with comments on them.
___	___	I try to learn where my students are coming from.
___	___	I am open to learn from my students.

A GOOD TEACHER IS NOT DETERMINED BY WHAT S/HE DOES IN CLASS, BUT BY WHAT S/HE IS IN CLASS. ALL THINGS CONSIDERED, HOW DO YOU FEEL ABOUT YOURSELF AS A TEACHER?

YES	NO	
___	___	Are you flexible in the class?
___	___	Do you enjoy experimenting?
___	___	Do you identify with students?
___	___	Do students identify with you?
___	___	Do you feel secure in your subject?
___	___	Do you have a sense of humor?
___	___	Do you enjoy different people?
___	___	Do you see teaching as a process?
___	___	Do you feel comfortable being a teacher?
___	___	Do you see yourself as contributing to your students' growth and change?

****

Count your "yes" answers and compare to the following scores:

54-50 You're close to perfect!

50-45 Keep up the good work. Your students are lucky.

45-35 You're average – but why stay that way?

35 or less: Are you underestimating yourself? Recheck your answers. If your answers don't change, you might want to take some steps to improve your teaching style and techniques. Your students will enjoy you more and you'll enjoy them more.

WHY ARE YOU TEACHING?

Most people want to teach because of a healthy self-interest, as well as a sense of responsibility to help others. Teaching has many rewards: getting in touch with your subject more deeply so you "really understand" it, learning from others, getting new ideas from the participants, helping someone else, and expressing one's thoughts are all important reasons why one considers teaching. We want to teach because we have a need to share knowledge. All of us know more now. The communications society is in full swing. People have a wealth of information and skills to share with others – and sharing can be exciting and fun.

Not many years ago we shared ideas through the family, the church, and other social organizations. Today, participation in these institutions is declining and our satisfactions there are becoming more limited. While we know more, there seem to be fewer avenues for expressing that knowledge. Parttime teaching in the community college can be an extremely exciting and rewarding activity. We are glad that you are part of us and hope that you will want to continue.

8/9

Chapter Two

STUDENT'S NEEDS

INTRODUCTION

Perhaps one of the most important factors in providing a service is knowing as thoroughly as possible the needs of those who are to receive that service. This is often overlooked in community colleges because tradition tells us, almost automatically, what students are. And yet, in this case, tradition can be very wrong. The community college is a unique institution in American education and provides for the needs of much different clientele than the schools to which we are accustomed: elementary schools, junior high schools, high schools, colleges and universities. The community college is indeed the people's college.

STUDENT BODY PROFILES

Some interesting and startling data is available through the Pima Community College District Fact Book. The most recent issue can give some sharply defined clues in ways to relate to our clientele so as to provide an appropriate teaching atmosphere.

For example, the ethnic background of our students very closely matches that of the entire community, with over one quarter defined as ethnic minorities.

A recent presentation by Dr. Harold Hodgkinson, a community college educator of national prestige, added data which will be of interest to us in the future: By 1990, one out of three of our students will be Black, Hispanic, Native American, or Asian. Of the admitted students in the freshman class at Berkeley in 1985, 56% are white.

An important issue for us to remember is that our students, being adults, are generally working and have many family and other obligations. They're not normally fulltime students and should not be considered in the same light as the typical high school or university student. Most high schools classify 100 percent of their students as fulltime, and the same is almost true at universities. The most recent semester at Pima College told us that about 5,000 students were fulltime, but over 15,000 were parttime. The obvious extent of our students' obligations in life should be considered in educational design.

Further, the goals of our students are extremely diversified. Of the total student population, only about one quarter care about

university parallel programs. Almost half are in occupational programs and the remaining percentage are in general or essentially non-major "undecided" programs.

The sex ratio of the college is moving in the direction of fewer males and more females. For that matter, we have recently passed the mid-way point so that women in the community college are no longer the minority.

Perhaps the most crucial point to which we as teachers need to pay attention is the age of our students. Community college students are not children. Whereas the average age of university students is probably in the vicinity of twenty, high school students more like 16, the median age of Pima Community College students is now over 29 and rising. Actually, over a third of our students are 30 years of age or older with many into their sixties and some in their seventies. Pima College students are adults, and our education programs need to reflect this fact.

One of several reasons for the large number of older students (above 21 years) is the presence of the baby-boom people in our population. It is important to remember that the first year of the baby boom was 1944. Persons born that year will be 45 in 1989. They continue to "go to school" in large numbers. The returning military veterans caused a revolution in four year schools in 1945. (Whoever heard of freshmen who were married, had children, and were older than 22?). Aging baby boomers will be causing a revolution in community colleges for the next 20 years.

Another implication of the parttime function is that most of our students do not go "straight through" Pima College towards graduation. For that matter, graduation was an effective goal and accomplished by only slightly over 1,000 students during the 1983-84 year out of a total of over 28,000.

STUDENTS' MOTIVATIONS

Why do people attend community colleges?

We are clearly in the information age. Toffler, Theobald, Ferguson, Naisbitt and others are giving us basic data about the change from the industrial era to the information age and the need for appropriate education. Our adults are responsive to this need and are attending the community colleges for reasons related to the information age and not the industrial era.

In 1981, the American College Testing Program conducted an adult learner needs assessment survey. Adults were asked to indicate their need for help in the areas of life skills development, career development, educational planning, and associations with

others. The composite summary lists the top ten needs as follows:

1. Developing speaking ability.
2. Increasing skills in mathematics.
3. Increasing reading speed.
4. Improving study skills and habits.
5. Learning about job opportunities.
6. Learning how to handle pressure.
7. Identifying strength and abilities.
8. Learning to take tests better.
9. Learning how to make better decisions.
10. Learning what jobs are available near home.

These findings have clear implications for providing a variety of services on campuses, and for our educational programs. For many adults, returning to the post-secondary campus comes only after long discussions with family and friends and involves a large amount of anxiety about how they will get along, a lot of excitement about the possibilities open to them, a realistic view of the costs involved, and a strong commitment to learning.

Adults enroll for personal reasons: additional vocational or professional training or developing the skills to find a job; to learn more about a particular field of interest; or to develop abilities for critical thinking. The post-secondary institutions that seek answers to what adults need and want will be very successful in maintaining high enrollment and will provide better service for all of their students.

Those of us who are Associate Faculty need to pay particular attention to the specific needs of our clients to provide as closely as possible for their resolution.

Since many of the students at Pima College are parttime, we must be aware of their needs for upgrading professional skills and adding to their repertoire of information so that they can progress better on the job. Younger students, particularly, are interested in transferring to a university. Some are interested in in completing an associate degree. Some, independent of the credential, are interested in developing specific work skills for finding a job. And some students are merely exploring a variety of topics and interests while they decide what to do when they "grow up."

Adult learners have typically been "out in the world" for some time and have developed personal views about how the world works. Further, they bring an incredible array of experiences to the classroom, along with skepticism and a "show me" attitude. They want examples and proofs; and most importantly, they want

to find out for themselves. They need to become self-directed learners.

As indicated above, adults generally come to the classroom with specific ends in mind: employment or simply an interest intense enough to surrender one or more evenings at home. They therefore expect practical results and grow impatient with classroom presentations that offer vague generalities and are irrelevant.

We are sometimes told that children assimilate knowledge more quickly than adults. But studies of learning don't support this view. In fact, adults tend to acquire concepts more systematically and efficiently than children, simply because adults have developed good learning habits. At the same time, many adults, having been away from the classroom for several years, may question their ability to cope with instruction again and may feel, "I'm too old to learn."

Finally, adult learners often have a more relaxed attitude toward the instructor, a developed notion of fair play, heightened sensitivity to other's needs, and a sophisticated sense of humor. All these attributes make adult instruction especially satisfying.

SOME IMPLICATIONS

Thus, there are many implications in teaching a diverse group of community college students in the people's college – students who represent a cross-section of our "on the street" population and who are not children.

We must avoid the use of traditional models simply because they are familiar. We must look for more effective approaches to the specific needs of our clientele regardless of their age. We must work with sensitivity to our students, being fully aware that they typically have many other obligations, and that being a student is only one of their roles. We must use non-authoritarian approaches that can help adult students – particularly those with a lack of confidence – to find more relevance in their educational program and to develop the confidence that is necessary for solid learning.

Most of all, we can help ourselves become co-learners with our students, helping each other to find mechanisms by which they can learn and prosper.

Chapter Three

VALUES AND PRINCIPLES

INTRODUCTION

Any programmed activity needs to be based on a consistent set of values. Teaching is no exception. This chapter will touch on some of the important philosophical groundings of education as it relates to the community college and particularly to adult education. Philosophies, of course, are very much related to one's personal value sets. Thus, these value sets are not necessarily yours. But look them over carefully, then add, modify or reject to the point where you have a cohesive and internally consistent set of values that can form the basis of your teaching.

FOUR BASIC VALUES

The following four basic values can be considered useful and important.

1. We never actually teach subject matter. If subject matter is uppermost in our mind, we might as well talk to the wall. Although it may be satisfying to the instructor's ego, it is merely self-fulfilling.

   In an even more important sense we also can never teach students in a very direct sense of the word. If we approach the classroom with students uppermost in our minds, we might wander aimlessly through a thick sticky batch of student's needs and questions. The students are not so many empty jugs to be filled and we cannot pour knowledge into them.

   All we can do is to help the student want to learn and then facilitate that process by providing an atmosphere in which learning can take place. The facilitative role of the teacher is by far the most important, and the competent teacher is the facilitator of the learning experience.

2. Teaching is partly science but mostly art. Professionals work hard to improve their art. Since it is an art based on principles and methods and has its own unique expression with every artist, each of us can continue to improve by studying the skills.

3. Let's not forget that students are people. They're what school is all about. The way we treat people tells a lot about each of us. Students should be given the same courtesy that we give to the very best customers or friends, colleagues

and family. They are there because they want to be there and they have paid for the privilege and right to be your students. Treat them as you would like to be treated. The instructor holds the key to achievement. Much of the destiny of the student is in the instructor's hands. Teaching is important.

4. Teaching is one of the finest and most satisfying activities a human can undertake. Getting a student "turned on," watching the eyes light up with achievement of a new idea or a new skill, seeing the fire of accomplishment become a flame of understanding, witnessing the struggle to reach the pinnacle of success, helping the student to turn their knowledge into wisdom - these are the components of an extraordinarily satisfying experience for the teacher.

CONTENT TRANSMISSION VS PROCESS EDUCATION

The traditional mission of education from the beginning of time has been the transmission of the cultural heritage of the past: passing accumulated knowledge or wisdom from one generation to the next. Completely content-oriented, the theme has been the importance of the transmission of that which is already known.

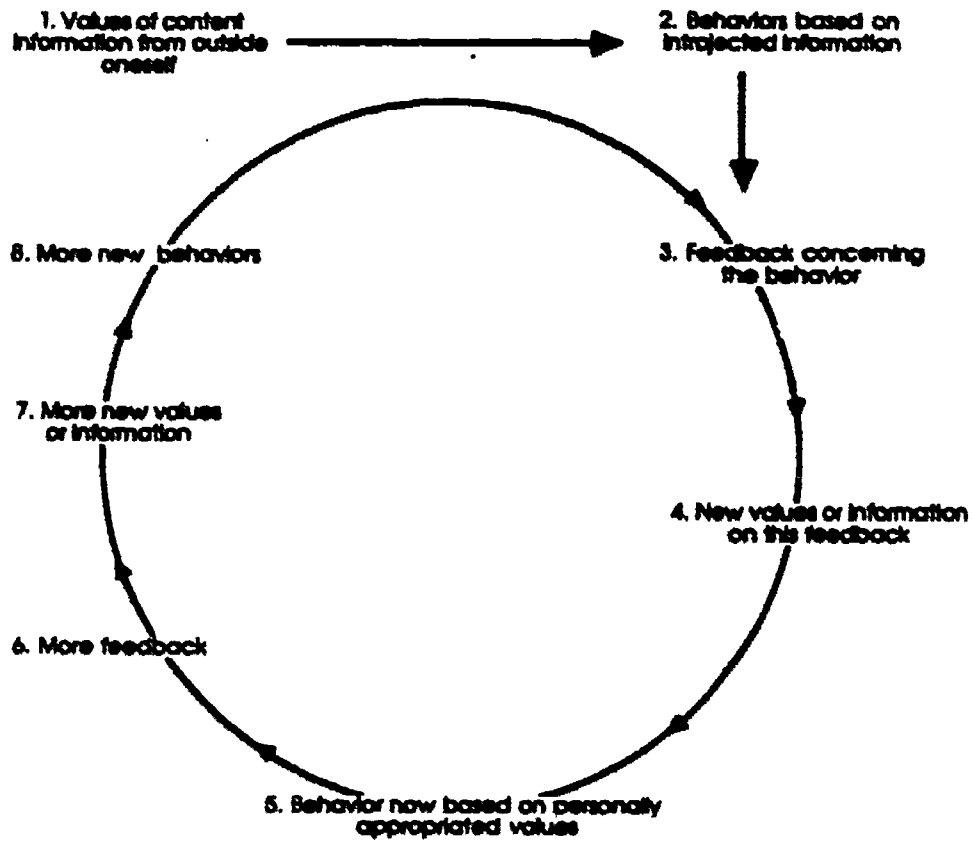
With the knowledge explosion in recent generations, however, this mission is no longer adequate. It needs dramatic reform. One of the most obvious potentials of reform can be seen in its applications with adults in the community college.

The other side of the coin from content transmission might be called process education. Difficult to describe, it can be summarized by saying that it involves helping the community college student to become a learner rather than merely learned. It is the kind of education which helps the students to formulate appropriate questions and to develop the mechanisms and tools of seeking answers rather than simply having the teacher supply the answers. Process education deals with the trip rather than exclusively with the destination. Increasingly it deals with the how and less with the what. The most appropriate application of process education appears to be the deliberate use of experiential learning.

PROCESS EDUCATION IMPLIES EXPERIENTIAL LEARNING

By experiential learning, we do not mean a simple accumulation of experiences, nor do we mean providing credit for redecorating the kitchen or changing a flat tire. Rather, experiential learning means the internalized learning associated with life experiences: personal experiences, on-the-job experiences, and classroom experiences. The idea is implied that we must be in

a cycle of learning from those experiences. Perhaps the most important function of the community college teacher is to help students get into that cycle of adjusting their behavior according to what they are learning from real experiences. Diagrammed, this cycle looks something like this.



Associated with the concept of experiential learning is the role of the teacher as facilitator. We will explore this role in more depth in a subsequent chapter. For now it is sufficient to say that the facilitative teacher, rather than simply supplying answers, helps the students to frame their own questions and seek their own answers. The facilitative teacher is one who helps provide for the growth of wisdom in the student rather than simply knowledge, who helps the student become a learner rather than merely learned.

The following principles are based on this philosophical set, and are consistent with the idea of process education and facilitative teaching. They can be adapted for many situations and are a "laundry list" of concepts that should be of use to almost any teacher. You may expand, modify, delete, or otherwise influence this list for yourself.

SOME PRINCIPLES

Some principles of learning are as follows:

1. Learning should be fun.
2. Learning should be involving: active physically, mentally, and emotionally.
3. Learning should be experiential in the broad sense, based on the student's experiences, thus helping the student become his/her own theoretician. Start with the student's own experience, help the student analyze that experience, developing his/her own theory or "therefores."
4. You are there to be a facilitator, not just an expert.
5. You should get the participants deeply involved in their own learning.
6. Learning must be based on the learner's needs.
7. Since students typically don't completely know their own needs. they must have help in defining and understanding their needs. They may have unrealistic expectations.
8. Base the planning of the entire program, the course, and each individual lesson on a planning model such as the following:
   - -Diagnosing the environment
   - -Setting objectives (desired outcome for participants)
   - -Developing teaching/learning activities
   - -Evaluatiing the process
9. Be aware of feelings. Most learning programs have learning objectives in the affective world, but techniques that respond to cognitive need.
10. People learn while talking, not only when listening.
11. Be a good model of a learner: listening, non-competitive, non-evaluative, non-authoritarian.

Chapter Four

MOTIVATION

INTRODUCTION

Obviously, one of the most crucial aspects of any teacher's role is motivation of students. Yet in a major sense we really can't motivate students, we can only free them from non-motivating factors. A basic human need is to learn and to grow. The problem is not that the need doesn't exist, but rather that it is clouded by other factors.

CONDITIONS AFFECTING MOTIVATION

Let's take a look at some conditions that negatively affect motivation in the classroom, and then think about procedures that might be useful in improving that atmosphere.

Boredom Leads to Low Motivation

Boredom is more apt to happen in a lecture setting than in discussion; more apt to happen when the instructor does all the talking than in a lab. Henry Ward Beecher once told his church ushers, "If you see anyone asleep in the congregation, come wake me up." He was right, of course. Instructors are not preachers (or ought not to be!). Yet no preacher would try to talk nonstop for a full hour, let alone for three hours, as some of our evening classes run.

Even an instructor who shortens the time can cause boredom in five minutes if he has poor mannerisms: a monotonous voice, rocking back and forth in front of the podium, or pacing panther-style.

Using dull language is almost as deadly as a monotone. Students need examples and illustrations to make the abstract become concrete, the unfamiliar become familiar. This helps, especially in a long lecture, to provide variety.

Perhaps nothing is as boring as listening to an instructor read the textbook, especially after the student has already studied it before class. If the reward for coming to class prepared is repetition of the same material, the student will stop coming to class prepared.

Keep to one-minute concepts. Use Illustrations. Use the board. Use visual materials Start discussions, sometimes even arguments, if necessary. Close the text and never read from it. Watch the pitch and pattern of your voice. Move purposefully. Get the students involved with more than their ears: make them use their eyes, their voices, and their bodies. The more they use their

bigger muscles the more they will learn and the less they will be bored.

Discomfort Distracts

Students who are too hot or too cold, or have to sit on hard seats have a tendency to develop apathy. Unfortunately, in most cases you can't do anything about it except recognize the problem and spice up your teaching so that they forget their physical environment.

Noise and light are also hamper motivation, and sometimes you can eliminate these distractions. If you can, do so. You will find your students much more responsive.

Some problems of discomfort, however, that are not always obvious, yet they are just as serious. For example, a student sitting too close or too far from the board or the speaker is not able to concentrate. Look at the way the students are arranged, and suggest corrections.

Making students sit too long is also uncomfortable. This is especially true in the long evening classes with little hope of relief for hours on end. It's hard to concentrate when you have to go to the restroom, or when your backside gets sore.

The obvious solution is several short breaks. The teacher who eliminates a break "so we can all get through earlier" is something of a sadist. If you can't find ways for the students to move around, find appropriate ways to distract the distraction, to comfort the uncomfortable.

Anxiety Hampers Motivation

A student who is worried or anxious finds concentration almost impossible. Sometimes the worry is from outside the classroom and there is nothing much that you can do about it – indeed, you may not even know of it. But don't add to any anxiety by what you do in class.

For example, being vague about the objectives of the course, or your system of grading, or the standards you expect on a test, are all methods of developing anxious students. Such anxiety will turn a student off quickly. Student always try to "psych out" the instructor, and they do it for a reason. They want to know what to expect. So tell them! Don't make it necessary for them to guess. They have a right to know what you expect.

One of the worst worry builders is the fear of a test. Some instructors seem to delight in building fear of a test in the minds of students. They will say: "I don't believe in giving high grades," or

"Most of you will probably flunk", or "Anyone who doesn't pass this test might just as well go home."

Talking down to students, as though they were the stupid ones and it is the instructor who is the Almighty-Who-Keeps-The Secrets certainly builds worry. It is the job of the instructor to help students, not to worry them.

Be clear in your assignments. Let students know what you expect. Be helpful with tests: use a test as a tool of teaching, not a method of "weeding out" the weak ones. Say to the students: "I hope you all get top grades" and mean it. Review for tests. Try to let them see what you are going to cover, but do so in fairness, not as a scare tactic. Go over the tests afterward to help them learn the right answers. Build the attitude which says, "I'm on your side. Let's work it out together." In other words, encourage your students, don't worry them.

Humiliation Develops Apathy

Anything that causes a loss of personal dignity is humiliating. And that is deadly. Sometimes a misplaced joke, or making fun of a student's name, will embarrass students. Most instructors are careful not to offend; but it is surprising what will humiliate some persons.

Laughing at a student's mistakes – unless he's laughing too – or pointing out a student's weakness, or belittling him in front of his friends will result in apathy. If the reward for trying to work out a problem on the board is ridicule, the student will avoid boardwork forever.

Sometimes a student will be humiliated by having the instructor post grades (which, incidentally, is illegal these days) or even pointing out the low scores by describing the "grade curve" on the board. His neighbors all know what score he made, and this is embarrassing.

Build confidence. Never, never, embarrass a student. Instead, answer his mistakes with "That's a nice try, but..." or "You've got a good point there." "Have you thought about.." or " I'm sorry, but let's see if we can work it out." Develop an attitude of encouragement and helpfulness.

Frustration Kills Motivation

The effects of frustration build slowly but will lead to low motivation. When you constantly block growth, you get a student who is no longer willing to try.

You can frustrate in many ways. Presentations that are too slow for the fast learners will frustrate. But presentations that are

too fast for the slow learners also will frustrate. Making all the students, fast and slow, guess what your objectives are will frustrate all.

Testing can be an obvious frustration. Teaching one thing and testing another, or developing tricky tests with ambiguous or "catch' questions, or being "picky" in your questions which ask the student to recall the words of a caption under the picture on page 57 – all these procedures are frustrating. The quick return of a test is a good teaching method; the longer you hold it back the less value it has and the more frustrating it becomes.

Be honest with students. Pace yourself so you meet the slow/fast needs of the majority. Tell them what you want them to learn, test them honestly, and return tests promptly. Answer questions the same way, honestly. If you don't know, say so. Don't hide behind the anonymity of obscure language.

SOME UNFORTUNATE INSTRUCTIONAL TECHNIQUES

The Dictator Approach

This is the attitude assumed by some instructors which says "You do it because I say to do it, and don't ask why." Sometimes the attitude is strong even though the words are not uttered. An assignment may seem to the student to be merely repetitious, or mere busy work. If so, the student has the right to ask what the purpose of such an assignment is, and the instructor has the obligation to make purposeful assignments. There is no room for a dictator in a democratic society, or in education.

The Know-It-All Approach.

What is more boring than a smart-aleck person who knows it all? And when an instructor assumes this attitude, the students take delight in tripping him up. They spend more time trying to "catch" the instructor in a mistake than they do in learning. Besides, who among us know it all? The Know-It-All instructor is best typified by the person who gives all the answers to questions nobody is asking.

The Gloomy Gus Approach.

If facing a class is such a gloomy experience, why teach at all? You should love your subject and want to share it. You should be eager to talk about your subject, so eager you want others to be excited about it too. When you take a gloomy approach, you soon get everyone else dreading it, hating to come to class, loathing the study of gloomy material, discouraged about piling up a store of gloomy information, apathetic about remembering or applying gloomy concepts.

The Fixed Grin Approach.

The is the opposite of the Gloomy Gus, but it is just as deadly. The instructor with the fixed grin is either devilish or insincere and seems to be saying "Ah, come into my parlor, little student, see how I can trap you." This doesn't mean you shouldn't smile; not at all. It means that your smile should be sincere, helpful, encouraging.

The Pessimistic Approach.

This attitude above all will turn students off. If the instructor appears to be discouraged, disgruntled, and unmotivated, the students will soon be just as pessimistic and unmotivated.

SOME POSITIVE TECHNIQUES

First, if you find yourself using any of the above approaches, stop it. Make learning a pleasure, not a duty. Learning is fun. Try to make class so much fun that the students can't wait to come back. This doesn't downgrade your teaching, it upgrades it immeasurably.

The challenge is how to encourage students. There are many ways, but here are six that come from some of our best instructors at Pima Community College:

1. Give your students understandable steps in developing their knowledge or skill. Keep reminding them that there is "always room at the top," and in this case the top is the limit of their own abilities.
2. Reward them at each successful step. Nothing will encourage them more than a pat on the back when they have made progress, however small that progress is. Confidence comes from recognition at the right time. Accentuate the positive, eliminate the negative. Negative learning may work for rats, but doesn't motivate people.
3. Encourage your students to try, try again. It is no crime to fail, but it is sad when a student fails to try.
4. Share what others have done, and share with the attitude that says, "You can do it too!" Be careful, though, not to give the impression that you have certain "pets" in the classroom. Compliment when a student makes even a little progress; but do it sincerely.
5. Involve students in the educational program itself. Involvement is one of the most highly motivating factors of any educational program. Students need to take part in the planning. They need to be working on material that is of interest to them and relevant to their needs. Elicit their ideas, use

them, make sure that they have sense of involvement as well as actually being involved. After all, it's their learning process. Students are not simply empty jugs to be filled with facts.

6. Make the classes as interesting as you can. If the work is based on their needs, if you use small groups, if the instruction is relevant, if the material is at the right level, not too difficult or easy, and is individualized as possible, the students will "eat it up". They should be encouraged, and given good feedback. This – in conjunction with a variety of methods and an enthusiastic teacher having fun with the teaching – is what it's all about.

Chapter Five

PLANNING FOR INSTRUCTION

INTRODUCTION

Curriculum development (or instructional design, or simply lesson planning – different words for essentially the same process) is an important prerequisite for instruction, and a crucial teaching responsibility. This chapter presents a structure and a form to help in instructional planning so as to improve teaching effectiveness.

It is important to base the planning of instruction on sound educational principles and a coherent personal philosophy. A number of those principles were stated earlier, but a few more ideas specifically related to instructional planning are presented here. You can undoubtedly think of more to form your own base for instructional planning

PRINCIPLES OF LEARNING AND INSTRUCTION

Experiential Learning

Experiential learning is a particularly important and useful approach in dealing with adult students. By experiential we mean not merely the experience the student has, but rather that experience developed into internalized learning, and – to the extent possible – changed behaviors. In this respect, the teacher is not only a giver of information but also, as mentioned earlier, a facilitator of the sharing of information among the students. The teacher is the one who helps the student to "process out" his/her own experiences. Perhaps the most lyric description of this role was given by Kahlil Gibran in his book "The Prophet."

> "Then," said a teacher, "speak to us of teaching," and Gilbran said:
>
> "No man can reveal to you aught but that which already lies half-asleep in the dawning of your knowledge. The teacher who walks in the shadow of the temple among his followers gives not of his wisdom, but rather leads you to the threshold of your own mind. The astronomer may speak to you of his understanding of space but he cannot give you the ear which arrests the rhythm nor the voice that echoes it. And he who is versed in the science of numbers can tell you of the regions of weight and measure but he cannot conduct you thither. For the vision of one man lends not its wings to

> another man, even as each of you stands alone in his knowledge of God and his understanding of the earth."

Gibran's words seem especially relevant to the community college student whose maturity and everyday experiences provide a rich source of learning when properly "processed."

Learning Modes

Without diminishing the importance of the cognitive (intellectual) domains in learning, a competent teacher will also attempt to emphasize the affective (emotional) domains. Since attitudes, values and feelings all contribute to learning, they need to be considered in the planning and implementation of any educational program, and in the provision of a relevant atmosphere.

Skills and Knowledge

In addition to knowledge about a topic such as accounting or interpersonal communications, you must emphasize skill development in the topic itself. Knowledge through lectures, books, films, and other learning media is important; but unless the student can translate that knowledge into behavior, that knowledge is of little consequence.

Developmental Nature

Any classroom or training program, any sequence of units or courses should be developmental in nature rather than composed of discrete and unrelated pieces. A competent facilitative teacher also plans so that a class is not simply concluded at the end of a given time period. Rather it has implications for continued learning and growth, both in time and scope. The mechanism for this principle might be the development of some sort of action plan for the student to follow in transcending the class itself.

Individualization

It is important that differing needs of students be recognized, and the class be responsive to those individual needs. A competent teacher places emphasis on helping each student to assess their own individual learning needs, and plans activities which help students to fulfill those needs as simply as possible. Individualization does not necessarily imply a one-to-one relationship with the instructor, however.

Two-Way Process

The educational setting in the community college classroom should be as two-way as possible, diminishing the didactic or the simple, "I know something and you don't, so here it is." The students should be involved in a genuine dialogue. Students not only find this approach more interesting and exciting, but also learn more as a result.

Excitement

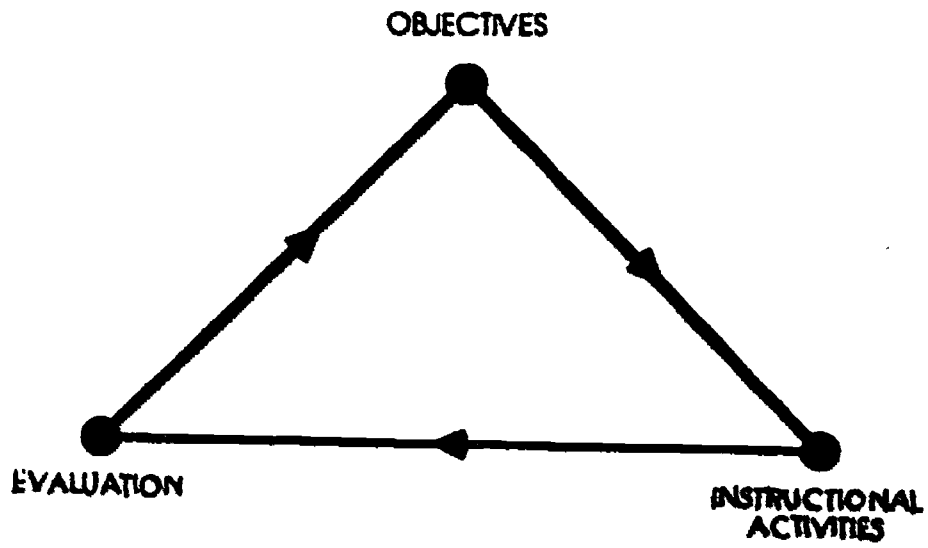
Learning is an interesting, exciting, fulfilling experience. It is very much the responsibility of the teacher to see that it is as exciting and interesting as possible. The teacher's own enthusiasm goes a long way toward assuring excitement. But, in addition, interesting presentations, variety of approaches and a host of curricular activities should be used. The good teacher is at least partly a show person.

Involvement

It is important that students feel a sense of involvement in the process. They need to understand that the class objectives are, for them, an important interim objective. Involvement begins when students see that that the class is planned specifically with their needs in mind and that their views are important to the teacher.

PROCEDURES FOR PLANNING

Lesson planning should be seen as a series of sequential steps while avoiding getting "hung up" in the details of any one step. As a result of good lesson planning, the teacher can utilize instructional time much more effectively. The following representation is a three-step approach starting with the definition of the objectives, moving to instructional activities and then to evaluation.



Ideally, the process becomes a self-regulating feedback cycle, continually adjusting the curriculum according to its measure of effectiveness in terms of student learning. The planning model might be applied either to the entire course or to a one- or two-hour session.

Objectives

The most appropriate and useful objectives are known as performance objectives. These explicitly state what the student will be able to do at the end of a period of time. They are future-oriented, measurable if possible, of reasonable scope, and written in terms of what the student will be able to do. Performance objectives are most useful if students' perceived needs are the basis for their development, and if students are involved in writing objectives.

Instructional Activities

After the objectives are determined, learning activities are next planned to help students reach their objectives. Designing interesting and effective activities is a complicated process and part of the craft of the teacher. Unfortunately knowledge of the content: business administration, algebra, welding, – whatever – does not necessarily imply a high level of teaching skills nor knowledge of a variety of useful teaching methods. In objective-based instruction, helpful criteria are provided to the teacher for developing and organizing instructional activities.

Evaluation

Evaluation is the system by which we measure the accomplishment of our set objectives. We can often use traditional tests of student learning, but a host of other methods are also available. A detailed discussion of evaluation techniques is presented in Chapter 9.

Chapter Six

TEACHING METHODS

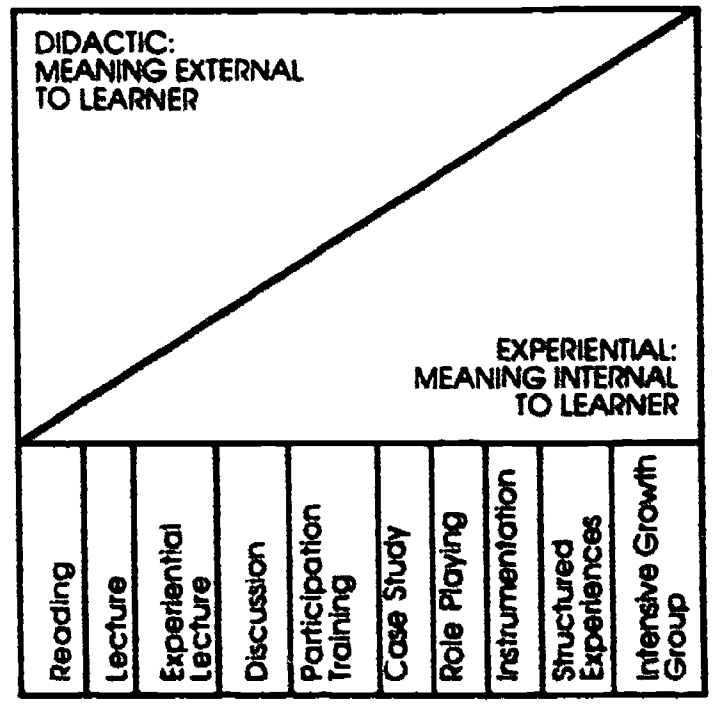
INTRODUCTION

Selection of appropriate teaching methods can be a difficult but critical step, particularly for Associate Faculty. A large variety of methods are available; all should be considered. The method one chooses is determined by a variety of criteria, including the teacher's skill, length of time available, needs of the students, the nature of objectives, the nature of available materials, among other more subtle factors. Teaching methods include reading, lectures, discussion, case studies, role playing and other simulations, test instruments, field trips, student panels and reports, films, video tapes, and use of guest instructors among many others.

Following is a set of questions designed to be helpful to a teacher in determining the relevance of methods:

1. Is the method suited to the objective?
2. Does it lend itself more precisely to knowledge, skill, or attitude learning?
3. Might it yield multiple learning?
4. Does it require a greater or lesser degree of background, knowledge, skills, or attitudes from the participants?
5. How much time does it take?
6. What kind of props does it take? Are they available?
7. What specialized skills are required of the instructor? Am I competent in them?
8. Is the method comfortable for me? Is it consistent with my style?
9. Does the method call for activity or passivity on the part of the student?
10. Does it contain too much – or enough – control on my part?
11. Is the method slow- or fast-paced? Is it flexible?
12. Does it achieve the objective in the simplest way possible, or is it needlessly showy?

The spectrum of teaching methods and their relationship to didactic/facilitative approaches is illustrated in the following diagram.



It would probably be of benefit for you to go through the implied connections above and answer each question from your own perspective. For example, simulation – such as role-playing – requires a reasonably high degree of skill on the part of the teacher and a fairly substantial amount of time. It's applicable to objectives that are strongly in the affective dimension and respond to student expectations of a two-way teaching nature. Videotapes, on the other hand, require less skill on the part of the instructor, somewhat less time, and respond primarily to cognitive objectives. They also are connected better with student's expectations in the more traditional one-way fashion.

By understanding of each of these methods in relation to the criteria, plans that provide appropriate models of instruction can be developed by any teacher.

Some Effective Adult Teaching Techniques

Following is a "starter" list of techniques that are particularly useful in working with adults. Review this list carefully, organize it to your own philosophical framework, then modify it or add to it to fit your needs.

The most valuable attribute that successful teachers of adults bring to the classroom is the sense of equality. They recognize that they work among peers, and therefore use informal approaches to draw and use inputs from students. Effective teachers find a wealth of background in the adult classroom to enhance their presenta-

tions. In other words, effective teachers know their students as well as their subject matter. Following are some specific recommendations for teaching adults successfully.

1. A self-familiarization exercise during the first section provides the class with a group feeling and a sense of common purpose. It allows class members to recognize other participants' abilities, and allows the instructor to know what resources are available in the classroom so that he or she may shape the presentation.

   One technique that works well is to divide the class into pairs, have partners interview each other, then report to the rest of the class. Another technique is to divide the class into groups of four or five. Each group interviews its members, and each member writes on slips of paper four words that characterize favorable qualities of every other group member. The slips are then handed to the person described. Every class member thus has a set of positive personal assessments – casual, perhaps, but meaningful. A similar concept, "Cross-Interview Techniques," is described below.
2. Always start and end on time.
3. Sustained attention and real mental engagement with a task requires that students have a clear understanding of the goals of any task. Adults come to class with a purpose and want to know at the outset that the class will meet their expectations. One way to do this is to provide a set of written materials at the initial session that include an outline of the purpose of the class, what will be presented, and what the participants are expected to accomplish for successful completion.
4. Walk the narrow line between entertaining and being an entertainer. Develop excitement from the learning, not because you are a comedian or hustler.
5. The teacher should present skills and concepts in an abstract-to-concrete sequence, then back again, taking the principles and applying them. Let participants know that they can succeed, and give positive, honest feedback about their work. Emphasize successes but avoid empty flattery. Students need to be able to gauge progress accurately.
6. Use small groups frequently, reporting back to the total group. This adds "air" time, getting people talking and sharing. Students are the single most important learning resource and source of data for the class.
7. The teacher must be able to use specific examples and concrete factual models relevant to individual experience.

Make abstractions and generalizations clear. While it may sound simple, being specific usually proves to be one of the most demanding creative tasks facing the teacher.

8. Get people to share their ideas. You frame the ideas, point out integrating factors, help participants discover the "Ah-ha's" to become theory builders. Again, use students' backgrounds and interests. Have them make presentations on relevant topics that incorporate their own observations, knowledge, and experience.
9. Use prepared or "homegrown" stimulations, case studies, role playing, and brainstorming techniques as possible. The most important part of these is processing them out. The question to constantly ask is, "What does it mean in our day-to-day world?"
10. Successful teachers will not limit themselves to lecturing. Vary your style, dashing it here with humor, there with a relevant anecdote, and at other times with multimedia materials and hands-on problems. At times teachers may be vigorously logical and have students draw practical conclusions from abstract principles. At other times, they might give a flood of examples and ask the students to recognize in them an underlying pattern. In this way, the teacher stretches the cognitive styles so that those who excel in one mode of cognition will learn to use others.
11. Teaching should always provide for transcendance. Build in the applications of the learning, not simply assuming that it will happen. Allow students to draw their own conclusions, to determine their own implications.
12. Teachers must remain open to the unexpected idea, the sudden insight that may throw their entire prepared presentation offstride. Someone may suddenly cut through a preconceived structure with one "gee whiz" insight. Welcome it, speculate out loud with the class about the possibilities. If the teacher is well enough versed in the subject, she/he will be able to integrate the new view, or to analyze, together with the class, how it falls short. The class, and indeed all of humanity, moves forward on these exciting "Eurekas." Remember that the natural state of human beings is constant, positive growth.
13. Use warm-up exercises to get people to know each other, to start the norm of informality, involvement, and co-learning.
14. Perhaps of the greatest importance is the teacher's skill in using questions. More about this later. The purpose of a good line of questioning is to stimulate thinking and allow

respondents to evaluate their own perceptions and their understanding of the subject matter. Questions also can be used to shift mental gears. For example, if students favor a logical-sequence approach, throw them a curve by asking how the matter at hand works into a pattern. Or ask them to make a value judgement on a procedure. If the respondent likes to relate directly to experience, ask him or her to develop a step-by-step sequence of logic or to deduce the result.

15. Students should realize that problems cannot be solved in a few minutes. Teachers, therefore, must allow time for reflection and analysis. As students and adults, we often spend many hours over a span of days or even weeks on a good problem.

DIDACTIC AND FACILITATIVE TECHNIQUES

The two following chapters describe in detail two basic approaches: didactic techniques and facilitative techniques. As a preview, and for the sake of simplicity, these techniques are summarized here:

Didactic implies essentially one-way instruction where the basic function is transfer of knowledge or skill from the teacher, text, or other materials to the student.

Facilitative techniques, on the other hand, involve more experiential learning, more affective dimensions, more of the learn-how-to-learn process, and go well beyond a simple didactic presentation. Facilitative techniques imply more activity on part of the student, and different role for the teacher. Rather than acting as merely expert, the teacher is one who helps the students to learn by understanding their own learning processes and searching for their own answers.

Neither technique is exclusively right or wrong. An appropriate combination needs to be developed by every instructor according to personal philosophy and principles.

Chapter Seven

TRADITIONAL TEACHING TECHNIQUES

INTRODUCTION

Selection of a teaching method is a critical step since method must be appropriate to course content and objectives. Selecting and presenting material through appropriate teaching methods is a major task of the instructor.

The concepts of traditional, or didactic, teaching methods are described in detail in this chapter. Although normally used as a perjorative term, didactic simply means the one-way presentation of information. Although this method has some severe limitations, as you will see, it is by far the most common technique used for delivery of "content" information. Some methods discussed here include those most frequently used in college instruction: lectures, reading assignments, audio-visual materials and other media, guest instructors, and a variety of other techniques including testing, student reports, and student panel presentations.

TRADITIONAL METHODS

The Lecture

Most community college students expect to be lectured to when they come to class. They come with notepads and pens, prepared to sit through boring lectures. Many community college instructors also dread the traditional lecture routine.

Some time ago, an experiment was conducted in California. A college course was taught by both regular professors and professional actors who had been carefully briefed in the subject matter. The students did not know about the experiment. At the end of the term, the examination results were compared and the overwhelming evidence was that those instructed by actors had learned more than those taught by the experts in the subject.

Does this tell us something about our traditional lecture techniques? The obvious answer to the question of why we continue to lecture so much is that lecturing continues to be useful in achieving a number of instructional goals.

Lectures are recommended when you are mainly concerned with presenting information not readily available in another form, when the material is needed for short-term retention, or when you are introducing a subject or giving oral directions leading to other techniques that actively involve the learner.

Strengths of the Lecture Approach

Walker and McKeachie (1967) argue that the lecture approach has two unique strengths: it can communicate the intrinsic interest of the subject matter and present the newest developments. Others have listed other goals which, although they may not be unique to lecturing, are well served by this approach. These goals, as you can imagine, are particularly relevant to Associate Faculty since one of the strengths of Associate Faculty is the ability to present useful, up-to-date information.

Following are some strengths of the lecture method:

- Lectures can communicate the intrinsic interest of the subject matter. Like live theater, lectures can convey the lecturer's enthusiasm in a way that no book can.
- Lectures can cover material not otherwise available. This includes original research of recent developments not yet included in textbooks, but which may be available only from professional papers or articles. It also includes the personal, relevant, and useful experience of the lecturer.
- Lecturers can organize materials in a special way. Lectures can be a fast, simple method of presenting materials fitted to the needs or particular interests of an audience.
- Lectures can convey large amounts of information. Lectures are probably most often used to cover facts, generalizations, and the like. This was the original purpose of the lecture before the invention of the printing press. When the material is otherwise available, in textbooks, or program texts, you should consider whether lecturing on the material is most desirable. It well may be if, for example, students are not motivated enough to study the material on their own, or if they lack necessary reading skills.
- Lecturers can communicate to many listeners at the same time. With the appropriate audio-visual support, a skilled lecturer can communicate effectively to a few hundred or even a few thousand listeners.
- Lectures can model an approach to a question or problem. This is particularly appropriate for Associate Faculty at PCC. Such modeling is one of the major characteristics of the instructor-centered teacher described by Axelrod (1976). The audience can watch first-hand as the lecturer "thinks" as a professional in the field. This kind of demonstration of a professional's approach is crucial to the adult learner in the community college and is one of the major strengths of Associate Faculty.
- Lectures permit maximum teacher control. From the teacher's point of view, this can be an advantage. The instructor

chooses what material to cover, whether to answer questions, etc.

- Lectures present a minimum threat to the student. Students are not required to do anything. From the student point of view, this may be an advantage, particularly for tender and frightened students who may be shy and lack confidence in returning to school. Lectures, therefore, have particular advantages early in the re-careering of students into the student role.
- Lectures emphasize learning-by-listening. This is an advantage for students who learn well this way. Listening may be increasingly the preferred mode for students raised on television viewing.

Weaknesses of the Lecture Approach

Although the lecture approach has a number of strengths, unfortunately it also has a number of weaknesses. Both strengths and weaknesses must be taken into consideration when deciding whether a lecture is appropriate for a particular part of your course.

Following are a list of weaknesses:

- Lectures can lack feedback on student learning. In the long-run, it's what the learner does, rather than what the teacher does, that really counts. The major drawback of a strict lecture approach is that it does not furnish the lecturer with any systematic information about whether, and what, students are learning. However, there are many nonverbal clues if you look for them.
- During lectures students can be quite passive. The more active the learner, the more learning is likely to take place.
- Student attention erodes quickly – in 15 to 25 minutes according to several studies.
- Information learned in lectures tends to be forgotten quickly. This general statement depends considerably on how passive the students are. This may not be a major weakness with many of our adult students at Pima. Students who simply listen to a lecture will tend to forget the material more quickly than students who listen and take notes. These, in turn, will remember less than students who take notes and are involved in some kind of question/answer session, etc. The more active your students, the more senses involved in the learning, the more they are likely to remember more material – and for a longer time.

- Lectures presume that all students are learning at the same pace and level of understanding. This is hardly ever true. Unlike written passages that can be reread, or tapes that can be replayed, lectures proceed at a unidirectional pace determined by the lecturer – not by the individual student.
- Lectures are not well suited to higher levels of learning: application analysis, synthesis, influencing attitudes and values, and developing motor skills. Lecturing is best suited to developing lower levels of knowledge and understanding. If you want students to think critically or to write well, you need to do something other than lecture.
- Lectures are not well suited to complex, detailed, or abstract material. The more difficult the material, the more individual differences among the students will influence the pace and level of the student's learning. Self-paced and/or two-way communication is then needed.
- Lectures require an effective speaker. The lecturer must be loud enough to be heard, and must also vary presentation style: tone of voice, pitch, and pace of delivery. Lecturers must be verbally fluent.
- Lectures emphasize learning by listening. This is a disadvantage for students who best learn by reading, or by doing, or by some other mode. Information must be available in its fullest form for long-term retention. And if you are working with a group of learners whose level of educational experience is minimal, remember that the learner must integrate your material with previous learning or with back-home experience.

Unless you are very entertaining, your subject matter is most compelling, and the audience is terribly committed, experience suggests that a lecture should last no longer than 20 minutes. At that point, you should utilize an instructional technique that requires students to change from passive to active behavior, from listening to doing, from you doing most of the work to the students accepting the responsibility. However, there is no reason a three-hour class could not have a one-hour lecture as long as the teaching techniques are varied and the students are motivated to become involved.

Some Tricks of the Trade

Following are recommendations for planning a lecture before you enter the classroom.

- Fit the lecture to your audience. Try to make the lecture relevant to your students and thus more interesting. This means that you will have to gather some information about the students beforehand to know them as well as possible.
- Focus your topics. You will never be able to cover everything. Selecting your topics to focus your lecture will provide a context within which you can make other teaching decisions.
- Use an outline. Some people suggest five to nine major points. If you attempt to cover too much, your audience will actually remember less and learn less. The purpose of the lecture is not to simply cover material, but to have the students learn it.
- Carefully organize the points you want to present. This can be done in a number of ways: chronologically, in ascending or descending order, by presenting a problem then possible solutions. The organization of a lecture is crucial to its success.
- Select examples. Almost all writers agree that illustrations help people understand and remember. Make them as personal as possible from your own experience so as to give your students one of the major advantages of being instructed by Associate Faculty.
- Present more than one side of an issue. You must do this if you wish to convince your students of the validity of a given position – if that is one of your purposes.
- Speak loudly and clearly enough to be heard in the back of the room. This seems obvious, but many instructors forget this need. Perhaps in the very first class, you should suggest that people signal you if they cannot hear clearly.
- Avoid distracting manners and verbal "tics" like "Ah," or "You know," straightening your notes – or any fussy, distracting movements.
- Provide an introduction. Begin with a concise statement that will preview the lecture. Give the listeners a set or frame of reference for the remainder of the presentation. Refer to previous lectures. Attract and focus their attention.
- Present an outline. Write it on the chalkboard, or use an overhead transparency or handout. Then be sure to refer to it as you move from point to point in your lecture. This

also indicates to your students that you are thoroughly prepared.

- Emphasize principles and generalizations. Research suggests that these are what people really remember and are probably what you really want to teach. But don't forget to include examples from your own experience.
- Repeat the point in two or three different ways. The students may not have heard the first time, or may have understood it, or had time to write it down. Try to use short, crisp sentences.
- Stress important points. This can be done by the manner in which you say something. It can also be done explicitly, for example, "Write this down," "This is important," "This will be on the test." If you are modeling thinking processes, point out the processes as you go along.
- Pause. Give your listeners time to think and to write.
- Use effective speech techniques. Talk, never read your lecture. Vary inflection and pace.
- Be enthusiastic. If you don't think the material is worth learning, why should your students? If you do think so, then communicate that with enthusiasm and energy.
- Start with a question, problem, or controversy. Very early in the presentation, you need something that will capture your listeners' attention and stir their interest. There is nothing wrong with being dramatic as long as you also have content. No matter how profound your content, the students won't learn anything half-asleep.
- Be relevant. Use materials and examples that your students can relate to: from their previous learning or experience, from real life. Again, this is the major advantage Associate Faculty brings to the classroom – and one of the major reasons you are here.
- Use audio-visual techniques such as models, films, recordings, etc., to vary your lectures, to make your lectures more vivid and immediate. (Audio-visual techniques are discussed in more detail later in this chapter.) Demonstrations and experiments serve the same purpose.
- Use humor. Almost every writer agrees that humor, or personal anecdotes, enhance the lecture. There are three caveats. First, humor should not be at the expense of any student, nor offend the reasonable sensibilities of any group. Second, it should be appropriate and illustrative. Third, avoid ego trips.

- Provide variety. Introduce some kind of change every 15 or 20 minutes. This does not mean ending your lecturing. It could simply mean stopping for questions or putting a transparency on the overhead, moving to a different part of the room – doing something different.
- Look at your listeners. Most audiences and groups of students provide a multitude of nonverbal clues about whether they're paying attention whether they understand and whether they agree. Learn to be sensitive to these clues, and respond accordingly.
- Solicit questions. Even if all you do is occasionally pause and look around and ask if there are any questions, you will have significantly added to the effect of your lecture. Get some feedback from your students. This helps your presentation to become as facilitative as possible.
- Use discussions. A number of group techniques can be used – even with large audiences – to increase their involvement. Try to get your students actively thinking about the material; try to get some feedback about what they are learning.
- Use praise. In your give-and-take with students, make positive comments – when warranted. Doing so increases learning.
- Use a vocabulary appropriate for the comprehension level of your group. Build in checks to see if the points are being understood by everybody.
- Encourage silent students to comment. If you think they might have an answer but are reluctant to speak up, say something like,"This is probably something you know quite a bit about, John...."
- Ask the same questions of several students. Don't stop after the first response. First responses often come from the same core group of participants.
- Formulate questions that cause people to give complex answers. This can be done by referring to areas of knowledge rather than simple facts, making it difficult to answer with a simple "yes" or "no."
- Piggyback your new questions with the responses you got from your previous questions: "O.K., let's take that approach and go one step further...."
- Pick out certain aspects of the response and refocus the group's attention to these areas.
- Try not to answer your own questions too often. A "one person show" discourages student involvement.

- Avoid questions to which the answer is obvious. For example, "Don't you agree. . ." does nothing but encourage the student to passively support you. Make a statement that will motivate their own reaction.
- Be flexible. Using questions as an effective instructional tool and as part of a lecture only works when you allow ample time. Lecturing up to one minute before class ends then asking if there are there any questions will not stimulate participation. You must create an atmosphere that motivates students to ask questions. Some openers that can yield responses are: "Before I go on, does this make any sense to you?", "How are we doing?", "Have I lost you?", "Do my examples make sense to you?", "What additional information do you want from me?"
- Consider giving handouts after the presentation. (More about this later.)
- Use gestures. Head, hand, and body movements can serve as support to verbal output, and as a way of projecting enthusiasm.
- Vary your style of interaction. Use questions, student-to-student interactions, discussion groups, demonstrations, problem-solving tasks, question-answer interjections.
- End each lecture with a conclusion that connects what has happened today with what will be covered with the next meeting, and a brief summary.

Variations on the Lecture Approach

Following are variations of the lecture approach:

- A lecturette is a short lecture lasting not more than five to ten minutes. A complex lecture can be broken up into several lecturettes which allow you to incorporate other techniques. A lecturette requires discipline and organization on your part, but tends to increase your chance of success.
- If this approach appeals to you but you aren't sure that you can stick to the ten-minute intervals, try something that has worked for other faculty members at Pima. Set a kitchen timer at the ten-minute mark and place it in full view for everyone to see. Explain what you're trying to do and watch how carefully your students pay attention.
- A lecture forum involves interrupting a long lecture with a brief question-and-answer period. It provides activity on the part of your students by asking them to examine a portion

of the lecture in detail before more information is presented. Avoid being led astray. Rather than ask, "Are there any questions?" you might start with, "How could you apply the three points I just discussed in your own situation?" or "What additional information do you need to understand this important step?" As soon as you are satisfied that the group is with you, you may proceed.

- "Fill-in the blanks" is a useful way to assist students in note-taking and to be sure that they focus on your main point. As you make your important point, participants can fill in the blanks on a handout you have prepared. They learn by seeing and hearing as you speak but also by repeating and writing.
- Many times you can generate questions by addressing a student who either has, or ought to have, a question. Once one student has responded, others tend to follow.

DISCUSSION GROUPS

Utilizing interactive techniques as a portion of a lecture can be crucial to success. Discussion groups are best used when you want to assure involvement of all of your students within the lecture framework. The technique is practical with groups of any level of group experience, and can be used at any stage of a course or presentation. The technique quickly turns one-way communication to two-way communication. Use discussion groups whenever you want to:

1. Discuss an assigned topic.
2. Solve a problem posed by you or the group.
3. Make a list of questions, comments, ideas.
4. Relate classroom theory to participants' experiences.

Discussion groups work well with any number of students. However the size of each discussion group should be limited to four to six persons. The time required is anywhere from four to six minutes for discussion, plus time for briefing and reporting. The required materials required depend on the reporting procedure; typically they involve paper, felt pens, and masking tape. But you can work it without these. The procedure is as follows:

- Explain the procedure and ask your students to turn toward each other so as to form groups of a specified number of people. The class will probably need your help to form

groups the first time you ask, but afterward this should occur with little interruption or delay.

- Clearly state the problem or issue. Write it on the board, a flip chart, or use an overhead projector.
- Inform the groups of your time limit.
- Suggest that each group select a recorder-spokesperson.
- You may suggest techniques for approaching the problem.
- "Float" from group to group to assist them in getting started and in keeping on topic and within any guidelines you may have suggested. It is vital that you do this, or some groups may stray from the objectives and miss out on the value of the exercise.
- Inform the class when "two minutes remain". At this stage a shortening or lengthening of time may seem appropriate. Whatever you decide, based on your observations, must be immediately related to the groups.
- Call time, even if some groups have not quite finished.
- Request a brief report from each group spokesperson. To avoid duplication and repetition, ask each succeeding speaker to add only points that have not yet been raised. Ask that different spokespersons be appointed each time you use this technique.
- Process the material generated by the groups. This may mean that you incorporate it into the lecture that follows, decide a new topic for discussion, or whatever. In any case, reinforce the efforts and comments from the groups so that you get at least the same number – or even more – contributions next time.
- Not all discussion groups need report – only those who have new information to contribute. This prevents time-consuming repetition and keeps individuals from becoming bored. In a large class, have each spokesperson report only their group's main point. This prevents the first group report from dominating the class discussion, and allows all groups to contribute.

As a warmup activity, participants could be asked to form sub-groups, introduce themselves, and determine one or two specific expectations they share. A list of these expectations could then form a basis for an all class discussion and what the course will and will not be about. Students are immediately involved without being put on the spot in front of an entire group of strangers. This is a variation of the cross-intergroup technique to be discussed later in this chapter.

Discussion groups can be used as an evaluation tool, at points throughout, or at the end of the course. While individuals might be reluctant to offer honest criticism of the course, and the instructor, they usually find it easier to do as part of the smaller group. Persons are more at ease in reporting comments regarding their instructor if they speak on behalf of their group.

Discussion techniques are presented in detail in Chapter 8.

READING ASSIGNMENTS

Assigned reading a is a time-honored tradition and an important method by which students learn. Generalized use of the textbook, as well as handout materials and other written material, both within and outside of class, provides much of students' le--ning.

But be careful how you use textbooks. As case in point, a recent study conducted by the Pima College Developmental Education Program, indicated that of four different textbooks used at the college – in courses in Drafting, Economics, Machine Tool Practices, and Welding – the average readability level of the book was beyond the comprehension level of seven out of ten students enrolled in those courses! No wonder students get discouraged and their retention rate suffers. Following are a few possibilities for Associate Faculty:

- Be very careful about use of textbooks. If a textbook is required in your course, be selective about the material you assign. Help your students to integrate it with other learning approaches. In making reading assignments, be sensitive to their ability to read. Be aware, as mentioned in the Chapter 2, that reading is difficult for many students and so is extremely time-consuming.
- Consider the use of handout materials based on your own experience. In addition, magazine articles, often written at a lower reading/comprehension level than are texts, can be marvelously clear and relevant. Begin a collection of materials that might be useful as handouts to your students to either supplement or replace the traditional textbook.
- The developmental education program (in the CC building, second floor) offers valuable services to the instructor. They are able to undertake reading/comprehension evaluations of textbooks, as well as teacher-prepared or other materials to give you an idea of what you can expect of your students. Perhaps most important, they can offer specialized instruction to students in reading skills. This program

should be fully used by Associate Faculty to help students develop as high a level of reading skill as possible.

- Consider writing your own material for student use. Readability formulas are largely based on the length of words and the length of sentences. So this is the area in which to be careful. If you keep your words appropriately simple and clear, and your sentences appropriately short, readablility improves.
- If reading seems to be a problem for some of your students, use other techniques for learning, such as a student reports, small groups, facilitative techniques, discussions, audio-visual materials, etc.

VARIOUS MEDIA

Handouts, as indicated above, are a form of visual aid often used by many instructors to outline lectures and to list definitions, formulas, or diagrams. With such material, students are given a sense of security because they know that they can refer to the handout later. Handouts, like student lecture notes, should provide organization and a reminder of what the students actually hear in classroom.

Used properly, visual aids are an excellent instructional tool. The first principle is to use visual aids frequently enough to keep students' interest high, but not so often that students become distracted or have no time to think about what is being said. Visual aids come in all shapes and sizes, and some are so obvious that instructors tend to overlook their effectiveness.

The Overhead Projector

The overhead projector is very useful. Transparencies for the overhead projector can be easily prepared, either by drawing directly on a transparent roll, or by using one of the many office duplicating machines to copy prepared material. Two superimposition methods are possible. One involves stacking transparencies layer upon layer to illustrate complete models and processes as you talk about them. The other method involves projecting an image onto a writing surface, such as a flip chart or white board, and adding details by writing on the surface. Other unusual effects such as silhouettes and cutouts can also be easily prepared.

The advantages of using an overhead projector to supplement a lecture or other presentation are manifold:

- You can operate the unit from the front of the room while facing the students.

- The transparency placed on the machine is completely legible to you and can serve as notes. Further, you can include your own private reminders by writing them on a cardboard frame of the transparency.
- Equipped with a roll of transparent sheeting, the unit can serve as chalkboard. Material written on the sheet can be stored for reuse as is, or the sheet can be erased and reused.
- Presentations are easily modified.
- The time spent on each item is completely under your control. The lamp can be switched on and off to project any image at appropriate times in your presentation. A transparency can be brought back at the end of the presentation, or at a later class session, to stimulate recall and discussion.
- Some room lights may remain on to allow note-taking and to keep students from nodding off.

Tips on Using the Overhead Projector

Be aware of the mechanics of using the machine:

- The machine can be awkward and create a barrier between you and your class. Get used to moving it. Be aware of the position of students: move those too close to the machine if appropriate.
- Instructors have been known to fall in love with overheads, using them at the slightest provocation. Variety of technique – talking directly with the class, writing a word on the board or a flip chart, using handouts, and other instructional tools – should not be discounted in favor of a single gadget.
- Don't forget that overhead projectors are a didactic tool, subject to all the limitations of didactic teaching.
- Don't show more information than necessary at one time. If you show too much, your audience will be ahead of you and you lose their attention when you make a specific point. Place a sheet of heavy paper over the transparency. By moving the sheet down, you can reveal the image line-by-line and thus control your students' attention.
- Use a pen or pointer on the transparency to direct attention to specific points. Avoid pointing at the screen and having to turn your head back toward the class. If you use a pointer or pen, place a pen or a pointed object directly on the projection surface. The shadow will show on the screen and leave your hands free.

- Use overlays to provide a sense of progression. Up to four transparencies can be placed upon each other in succession.
- Turn the projector off whenever you want to redirect attention of the group away from the image and back to you.

Other Visual Aids: Slides, Motion Pictures

Slides are much more difficult to use for most teachers because support personnel must photograph materials and develop film, but their visual quality is superior to that of transparencies.

Motion pictures illustrate content vividly, and the best educational films are conceptually complex and of high interest to students. However, showing a long film takes up scarce class time. For a film to be a real partner in the facilitation of learning, it should be carefully selected, presented, and followed up. Film is recommended to provide alternative information channels. Film is valuable when students are limited by low reading skills. Films provide a continuity of action and are especially appropriate if they can reduce long demonstration processes to brief sequences. Films also provide a "front seat" for many events, processes, and experiences. Experts can perform demonstrations, equipment can be displayed close up, places can be visited and everything can be shown in its original color at the right angle and speed for analysis and learning. Films can also be stopped at certain points for summary, discussion, and questions.

Some words of caution. Films quickly become outdated and thus lose their impact. Also the regulated rate and method of presenting the material forces all students to follow at the same speed and with the same level of comprehension. Some students may become bored while others may find the material too difficult to comprehend. Remember, films are a didactic approach and subject to all those limitations. Finally, the room must be darkened, which precludes note-taking.

In short, effective use of films requires careful planning. Films must not be used simply for their entertainment value, but for their contribution to the learning process.

If you choose to use a motion picture as an instructional tool, here are seven suggested steps to follow:

1. Find out what films are available through the Office of Instructional Support of the Downtown Campus. Ask yourself if, according to its description, an available film is appropriate for your course objectives.

2. Preview any film you intend to use. Is the film up-to-date and realistic? Do you agree with its content, or does it present a desired alternative approach to the subject?
3. Make the physical arrangements. Book the film in advance. Book a projector and screen through the Office of Instructional Services. Check to make sure the room can be darkened, so that the film will be visible to everyone. Check out your equipment so that you know how to work the projector. Adjust the classroom seating arrangement to make it suitable for film viewing.
4. Prepare your students. Relate the film to the course content. Explain its setting, peculiarities if any, and quiz students on their relevant background experience. Inform students of what they can expect to see and learn from the film. Instruct the students to look for specific problem areas illustrated in the film. Inform students how the film's content will be used in the course: to present new information, illustrate previously made points, etc.
5. Show the film. Avoid fumbling with focus, sound, and other mechanical details. Rehearse ahead of time. You may want to stop at certain points to concentrate on a particular issue, elicit questions, raise a point, or receive reactions regarding its content and presentation. Try to leave some classroom lights on to permit note-taking.
6. Follow up. Begin by inviting questions and comments. Go straight to the issue for which you chose the film. Many films include a set of suggested activities for students.
7. Keep a record. Log the course name, audience profile, at what point in the proceedings you showed the film and how you introduced it, what activities followed – any comments to help you make good use of the film next time around or perhaps to avoid using it again.

Some Techniques for Integrating Film

Following are some techniques that could help your students integrate the film's message with the rest of your course material. The activities are designed for small group tasks, three to six people, and require between five and thirty minutes of class time.

To Frame Questions. A relative elementary use of the group is to discuss the film with the objective of coming up with a question the film raises. The question may be answered by another group, the class at large, or the "asking" group.

- **To Specify Learning.** Another easy way to put groups to work is to ask them to zero in one or two important ideas introduced in the film. In effect, the group is challenged to think of what they have learned.
- **To Respond to Specific Questions.** You may wish to have the groups focus on specific questions raised by the film. Such questions may be prepared in advance and distributed to participants, or they may be written on the blackboard. Give each group one or two questions of a special sort, or all groups may work on the same questions, depending on the available time. The process may be repeated if this is needed or productive.
- **To Brainstorm.** The film may introduce a problem which can be worked out through brainstorming techniques. Groups of six to twelve people, with a recorder assigned by each group. are appropriate for this technique.
- **To Critique Assigned Readings.** Provide a pertinent article or handout and ask that it be discussed in relation to the film.
- **To Assess Personal Effectiveness.** Participants can be invited to assess their own behavior in situations similar to those in the film. For example, in communication skills development films, groups could view the film while assessing areas in which they need improvement. The approach involves self-exposure on the part of the student, so it should not be used until a sufficient degree of rapport and trust has been developed.
- **To Provide Practical Applications.** After the film has been viewed, a guest speaker may be invited to discuss the relevance of the film's topic to real work applications. Or you could do this yourself. This approach works especially well if the guest speaker has seen the film and is experienced in the same employment skills or disciplines so that they can bring realistic opinions to discuss with the class. A colleague of yours might be an excellent guest.

The Chalkboard

The chalkboard is so common a classroom tool that it is often ignored as a teaching technique. Yet no other tool is more available, and nothing is more valuable than the ever-present, highly visible wall-space where words may be written large and lines may be drawn. It may be used in thoroughly planned ways, or spontaneously,when words fail to describe concepts. It is used by almost all instructors. Many feel lost without it.

Following are a few suggestions for use of the chalkboard:

- First, what you write on the board should be directly related to what you are saying. It should include the highlights of your instruction, your emphases. Use it sparingly – enough to cover the subject but no more. Its purpose is to add a visual dimension to your oral presentation, or to any other activity. So what you write will be interpreted by your students as being the most significant elements of the concepts being presented, and will be remembered longer.
- Write large and legibly. This means taking the chalk firmly in hand, pressing firmly on the board and making letters large enough for the people in the back of the room to read. Use your arms when writing,not your fingers. Turn around frequently as you write so that you can speak directly to your students, and move around so that all can see the material on the board.
- Detailed drawings are best left to other media such as an overhead projector or handouts. But sketches can sometimes be used on the chalkboard more effectively than prepared materials. This is true especially if you are trying to show relationships or movement. You don't have to be an artist. The profit and loss figures of an accounting class, diagraming sentences, or mechanical diagrams become more understandable when presented graphically.

Tests

Tests can and should be used as teaching tools. Used properly, tests can be one of your most effective teaching methods. Not all tests need be recorded on the student's record, and probably should not be if they are used as teaching tools. We typically think of a test as a hurdle, something the student must endure. But students rebel at tests when they are used exclusively as hurdles. Try using a test, which you promise will not be recorded, just to find out whether or not your students have learned what you had intended them to learn – and to provide feedback for them as well. Try simply letting your students check the results themselves by discussing their answers with them. It doesn't have to be long or scary, but it will give you the opportunity to emphasize the most important aspects of the new material you wanted them to learn and to help them overcome test anxiety.

Under any circumstance, whether recorded or not, whether used for evaluation or for simple feedback, a test should be

discussed with the students as soon as possible. If it is to be a learning experience, they need the feedback regarding the correct answers as soon as possible after the test is taken. Always take the time to discuss any test with your students. They have the right to know how completely they have mastered the material; and you have the obligation to help them know.

Student Reports

Student reports can be another important teaching methodology – less didactic than many techniques. Student reports are best handled when they can be shared with the whole class.

Occasionally you may have a student who is intrigued by a certain concept or question. If it is relevant to the rest of the class, they should be allowed to learn from a report given by a student serious enough to do the research. Ordinarily the report can be presented as a summary, oral report, or in some cases, particularly if the findings include statistics, you could have the report duplicated as handouts to all members of the class. If you decide it should be shared by the total class, give the class some time to ask questions and discuss the findings. Very often a class discussion will bring out ideas the student reporter did not see that will enrich the material.

Panel Discussions

Student panel discussions are similar to student reports. You might group your students into three to five individuals for assignment of a manageable topic, then give them time during class the class session to get organized. Frequently this is the only time a group of adult Pima students can get together.

After an initial meeting for organization, it should not be necessary to give them additional class time to work. One note of precaution: you should work with the panels to see that they stay on the subject. You should be the one to assign, or at least approve, the subject since it must meet the objectives of the course. And you should follow through to assure that no panel is going off on a tangent.

When the time comes for the panel members to present their position, you should give them a specific allotment of time during class, then allow time after each presentation for general discussion. What you are hoping for is total class involvement, not just individual or small-group learning. It is unfair to the whole class to let individuals or small groups gain insights in which the whole class does not participate. You might also let each group present some questions for your final exam.

Term papers

Term papers and other written assignments for students are sometimes used as busy-work. This is counterproductive. If you decide to assign a term or final paper, make sure that the topics covered are in line with the objectives of the course, and that the paper itself is a learning experience. It usually is best to give students some options: a term paper, an oral report, a panel discussion, an individual field trip, or some such choice. Not every student learns best from a term paper or from any other specific method. Variety of teaching methods is best. If you give the students options, most students will usually pick the option in which they can make optimum progress. With some exceptions, of course, adults usually know what will help them most. Make sure that students presenting a term paper will have a chance to share their information with the rest of the class. Assigning a term paper to be turned in to you on the last day of the class contributes nothing to other students. Further, students who have worked hard on a paper feel "let down" if the instructor gives only a cursory look at the paper under pressure to get grades in, and seems to decide on its grade on the basis of the number of pages or some other simplistic criteria.

Guest Speakers

Guest speakers are often used, particularly by Associate Faculty. They can bring a delightful change of pace and important new information to the class. They must be chosen, however, with the course objectives in mind. Guest speakers should meet such stringent requirements that the preparation can involve more preparation and care on the part of an instructor than to actually make the presentation. Does the guest have something to say that you as the instructor cannot say? Will they lend authenticity to the material? Will they contradict what you have been teaching? Will they stay on the subject? Will you be able to tie their ideas to your objectives? Will they prepare properly? Will they be enthusiastic and interesting?

It's crucial to let the guest speaker know of the nature of your class. How many students are there? What are their needs? What is their background? What do they really want to learn? You might even prepare specific questions for your guest to respond to, or go so far as to prepare an outline that they can use in the development of their presentation.

Lay the groundwork for your guest's presentation before it is to be given. When the guest speaker comes to your class, introduce him/her in terms relevant to the course. When he/she finishes speaking, ask questions pertinent to the course, and give the class a

chance to ask their own questions. No matter how interesting the speaker may be, if their presentation is not pertinent to the course, don't bring them in. Use guest speakers sparingly: too many speakers will give a jumpiness to your course and you find that your students will end up being confused.

CONCLUSIONS

A number of essentially didactic methods of instruction have been presented in this chapter. Didactic methods are those which directly transmit knowledge or skills – from you or from prepared material such as texts – to the student. The didactic method provides the foundation of most of our educational programs today. The technique is most effective when basic information is to be provided to the student. The choice of the method of presentation, didactic or facilitative, is up to the teacher and is part of the teacher's craft. That choice should be based on criteria suggested in Chapter 6. Presentations should be planned and presented carefully to maximize student learning.

Chapter Eight

FACILITATIVE TEACHING TECHNIQUES

INTRODUCTION

As we have seen, traditional teaching is essentially didactic, a one-way flow of information primarily dependent upon a teacher's expertise in the discipline to be learned.

The teacher's facilitative role, however, has generally been neglected. Facilitation refers to orchestrating the processes of learning so that the student becomes central in the learning process. Less subject matter expertise is required of the teacher, but more knowledge of the nature of students, as well as the techniques and systems appropriate to help students become learners.

In their pure forms, neither didactic nor facilitative approaches are fully functional. Both require the other. There is no such thing as facilitating unless there is something to facilitate. On the other hand, the simple transmission of content is meaningless unless the student becomes a learner as well as learned. Through facilitative methods, the content comes partly from the students. The function of the teacher becomes one of framing the information: providing a syntax, providing a system, providing an outside parameter for the learner. The focus is more on the trip rather than the destination, more in terms of the student becoming a learner, more in helping a student develop wisdom, not simply knowledge.

One of the most impressive quotes on education is one from Carl Rogers:

> "I have come to feel that the only learning which significantly influences behavior is self-discovered, self-appropriated learning"
>
> Rogers, C.R. 1969. *Freedom to Learn*, Columbus, OH, Charles E. Merrill (p. 153)

In educational circles, more emphasis has recently been put on the learner and less on the teacher. Perhaps this is a natural phase in the evolution of adult learning and education. Whatever the reason, the word "facilitator" has become more common as a way of defining the leadership role of a teacher. In some cases, the distinction is semantic; in others, the term denotes a significant difference in the way a teacher handles a group. Facilitation is essentially the skill of assisting others in a group-learning situation. Its main feature is the absence of hierarchies – including the absence

of authoritative directives by the teacher. Instead, the facilitator assists all members of the group to accomplish their individual and group goals.

PEDAGOGY AND ANDROGOGY

An interesting dichotomy exists in the literature of adult education which highlights the difference between traditional teaching and the facilitative model of adult learning. It is the difference between pedagogy and androgogy. Pedagogy is the traditional approach to education. The word comes from the teaching of children. The teacher is the active participant; learners are essentially passive, responsible for absorbing what is being taught. While pedagogy is the science of teaching, and parenthetically, in the Greek derivation, the teaching of children, androgogy is the science of adult learning. In androgogy, the emphasis is put on "how mankind learns," which may or may not include teaching. The focus is on the learner. The teacher's responsibility is to discover how students learn and to devise methods which will meet those learning needs.

Again it must be emphasized that facilitative teaching is designed to supplement not to replace didactic teaching. The sole use of a facilitative technique, ignoring the accumulated content of generations, would in effect involve reinventing the wheel. On the other hand, it is inventiveness rather than the object invented – the journey rather than the destination – that is often more important. The process often transcends the content.

Many kinds of facilitative techniques are discussed in the following sections: issues involved in acquaintance and warm-up techniques (particularly involving data collection), concepts of discussion leadership, class discussion techniques, simulations and role play, case studies, and research projects among others.

The essence of facilitative teaching, however, is based on the teacher inventively generating techniques appropriate to a particular subject matter, specific individual students, and the specific makeup of the group of students with whom the teacher is working.

INTRODUCTION, ACQUAINTANCE, WARMUP, AND DATA COLLECTION TECHNIQUES

Much of any student's learning procedure is in concert with other students as well as with the teacher. An additional role for the student is thus implied: a student also helps other students learn. To the extent that this is true, it's important for students to introduce themselves to one another, and to understand each other's objectives. Acquaintance and warm-up techniques thus help

to build a sense of team, and are very useful in early classes to help students feel that "we're all in the same boat" and begin to function with each other.

Further, introductory, process-oriented techniques help reduce tension and anxiety and get students talking – which strangely is one of the most important modalities for learning. An introductory facilitative exercise helps students understand that the basic responsibility for their learning is their own, not the teacher's, and sets the tone for the class.

How many times have you walked into the classroom for the first session and tried to start a group discussion by asking the students to introduce themselves and state their reasons for taking the course? Generally, the first person is caught offguard, the next person immediately begins thinking about what they are going to say, and those last are so busy rehearsing their statements after having heard the more "impressive" introductions that they haven't listened to what's been said at all. The last person barely fumbles through and you feel that the exercise has been a fiasco.

As facilitators, you must remember that ice-breaking activities must never put the students on the spot. Students have more fears in the classroom at the beginning of the course, especially if they are just beginning a program. Students have many questions that you need to answer immediately:

- What kind of course will this be?
- Will I like this course?
- What is expected of me?
- Who are the other people here?
- Do the other people know more than I do?
- Are they smarter? Dumber?
- Who is the instructor?

Getting acquainted, ice-breaking activities serve several purposes. They give the instructor a chance to get the feel of the group, and allow the students to learn who their classmates are, to ask questions, and to settle in and start feeling comfortable.

The activities discussed in the following paragraphs have been used in a variety of adult education settings. None require special training or experience on the part of the instructor – only sensitivity to, and respect for, the group needs, and a desire to get the course off to an enjoyable and pleasant start.

The teaching philosophy at Pima Community College is quite simple. People learn better if they enjoy the learning. By making the environment – primarily the social interfaces with the instructor

and the other students – as non-threatening as possible, an enjoyable learning atmosphere is created. During the first class session, a simple meeting exercise – as well as some information on grading criteria, tests, in-class assignments or out-of-class activities, assigned texts or instruction materials, etc. – is appropriate. Often there will be "housekeeping" chores to be completed: attendance, distribution of materials, explanation of course objectives and outcomes, etc.

The following warm-up activities, some of which include data collection, can be very useful:

Needs/Resources Exercise

One of the most important aspects of facilitative teaching is the use of a curriculum that is based on the needs of the students and that utilizes the resources that students bring to the class. One of the most appropriate and useful exercises to accomplish this goal is the Needs/Resources Exercise. It is based on the idea that students have individual objectives, and that, although many of them are held in common, it is important to recognize them as being individual. This may be done by building a curriculum on the specifically defined needs of your students rather than upon advance guesses about their needs or a preplanned, text-oriented, *a priori* curriculum.

Further, talented adult students can bring a wealth of resources to the classroom. If these resources can be shared and built upon, the teacher need provide little additional expertise, and can concentrate instead on structuring techniques through which students can share information with each other.

A Needs/Resources Exercise also provides an introductory and warm-up activity that can be used early in the semester.

The basic objectives of the Needs/Resources Exercise include the idea that students will have the sense that the curriculum is being designed as much as possible to suit their individual needs, that students will develop a truer understanding of the learning needs of not only of themselves but of others in the class, and that they will develop an understanding of the resources other students bring to the class and how those resources can be developed and utilized.

After a brief introduction of the rationale and objectives, the instructor should pass out to each student two sheets of 2' x 4' blank newsprint (or sheets from a flipchart) and a felt pen.

Ask your students to start one sheet with the heading, "Things I Need." Ask them to list on this sheet such details as: My learning objectives. Things I would like to know more about or have the capabilities to do better. Skills, attitudes, values, or

information needed. What is it that I would really like to gain from this class? What would help me in my personal life and work?

On the second sheet, ask each student to use the heading, "Things I Offer." Ask them to list their skills, knowledge, information, background, experiences, whatever might be of use to other students that they are willing to share. After allowing enough time for all students to develop their complete list, ask them to put the sheets of newsprint on their front and back, taped over their shoulders sandwich-board style. Then ask them to mill around the room reading each other's information, both needs and resources, discussing them in some detail. Students should be encouraged to ask questions of each other, to discuss details, so as to develop a sense of "team."

When everyone has read the information from each other's sheets, ask your students to take them off and put them on the walls around the room with their name on them for further reference.

As facilitator, you can then lead a general discussion about the nature of the group, the needs that were identified, and the resources that were listed. Based on this information, the group can be helped to define general guidelines for the curriculum with the assurance that the appropriate adaptation of the course material will be made.

Expectation Survey

A related activity to the Needs/Resources Exercise, this activity is designed to find what your students' needs are and what their expectations are of you and the course. Either prior to planning a course or very early in the course, ask students to express their needs regarding content and process.

This activity is recommended to help learners to identify their desired learning outcome, to disclose which instructional techniques they are familiar with, which they prefer to learn by, which they would rather not see used, and to assist you to modify the course to the needs of your students. The recommended time for this exercise is up to twenty minutes. The only required materials are blank paper or prepared questionnaires.

The quickest way to obtain information on student's needs is to prepare a list of topics, issues, skills, etc. and present them to the class in the form of a questionnaire. Students can then choose which items they prefer, by giving each a ranking in order of significance. This gives the instructor a quick feel of the pulse and allows students to choose from a menu without having to be overly specific about their needs.

Another approach is to give each student a sheet of paper containing such questions as:

- What would you like to learn from this course in terms of skills and information?
- What kind of activities would you prefer not to get involved in?
- What kinds of activities would make this course most enjoyable for you?
- What kind of success do you look for at the end of this course?
- How can the instructor be most useful to you in your learning?
- What contributions do you think you can make to the group's learning experience?

Collect the papers and prepare a summary of the ideas for distribution to the class at its next session. You might ask for random verbal comments along with written questions if you wish to start off with a discussion of students' expectations.

A third approach is to generate students' comments in small groups. Ask participants to form sub-groups of three to five. Issue felt pens and a sheet of flip-chart paper to each group. Ask the groups to make a list of about ten things they want to learn in this course. Ask that one person in each group act as a recorder but not as a chairperson. Tell the groups that any contribution is OK, that there is no need to reach a consensus on any of the items. Be sure to set a time limit. Circulate throughout the room to keep the subgroups on track. Keep out of the discussions except to clarify the task if groups are unsure of what to do. Leave two short strips of masking tape with each group for later use.

The publishing stage of the exercise is next. Two approaches can work for you. You might ask the group to narrow their list down to three or five of the most pressing items on the list. Allow a few minutes for this forced ranking. You can then ask the recorder to become the reporter for the group and to report their recorded items to the class. Write those items down, either on a blackboard or flipchart, arranging them according to content, sequence, or under such headings as, "Possible In This Course," "Not Possible In This Course," "Not Possible In This Course But Alternatives Are Available," or similar headings of your choice.

An alternative publishing technique is to ask the recorders to post their sheets on a wall of the room. Invite the entire class to take a good look at every group's list. Comment on similarities and

contrasts and ask for clarification of vague items. Encourage students to direct any questions to the list originator. Follow with a structured, yet open, discussion of what the class expects. You should then relate your student's needs to your own expectations and needs. Discuss where and how the two overlap, contradict, and complement each other.

The advantages to students from this activity include having made an attempt to identify their learning needs, and getting an early sense of responsibility in the course. Students see how an otherwise ominous course becomes a personal learning project aimed toward satisfying their expressed needs. Students can later hold the instructor responsible if the course deviates from their expressed needs.

Students can assess their own learning accomplishments at the end of the course. Perhaps most important, the student sees the course as a cooperative co-learning relationship with the teacher rather than an adversarial relationship.

Advantages for the instructor include the fact that by helping students to identify their needs, the instructor begins to fulfill his/her role in the course – that of the facilitator of learning. As the instructor develops a feel as for the interests, backgrounds, and needs of the learners, he/she can select strategies that help students move toward their goals. Further, the instructor can begin to individualize instruction to meet specific student's needs.

Adjective Game

A rather light touch, the adjective game can be very useful in developing the norm of fun, excitement, and interest and at the same time begin the process of students knowing each other's needs and interests.

Without any introduction, ask your students to sit in a circle and undertake the following. The student to your left is to start with his/her own first name preceded by an adjective which is not only self-descriptive but also starts with the same letter. For example, "Exciting Ed," "Joyful June," "Confused Charlene." The student to that person's left is to start with the first student's name, then add their own. The group proceeds in this fashion, rebuilding the chain repeatedly, until the circle has been completed – often with laughter, and by providing help when names are forgotten.

This exercise should not be attempted with more than about fifteen in a class because it seems to take too long and becomes unproductive. Don't worry about its level of difficulty. It's surprising how easy it is to remember the names and how they will "stick" throughout the semester to form a basis for class friendship.

It is worth spending a few moments to "process out" the experience itself. Was it anxiety-laden? What made it difficult? What made it easy? Often one notices that the most difficult names to remember are the ones heard most recently. Perhaps this is due to anxiety – a result of knowing that your turn is coming. Anxiety usually interferes with learning.

Human Bingo, A Warm-Up and Acquaintanceship Exercise

Another warm-up and acquaintanceship exercise is called Human Bingo.

The leader can explain in a light or humorous vein that we're going to play a game of bingo and that the grand prize is something fantastical – like a new BMW.

Either pass out sheets of papers that are previously marked into 16 squares, or ask people to fold an 8 1/2 x 11 sheet so that it comes out to 16 squares. If the group is very small, it's possible to use 9 squares.

Ask your students to then move about the room, exchanging signatures with other students to fill the 16 squares.

At the same time it can be very useful to have people share information or collect data. For example, if it's a beginning class, you might ask the students to share with each other what their major expectations are for the semester. If it's a group about to begin a skills training program, you might ask what a major expectation is or perhaps even a major anxiety at the moment.

If the participants are merely getting to know each other, you might tell them to ask the question, "What is unique or different about you that you would be willing to share with me?" The participants need not write down the answers to the questions, but only collect signatures.

When everyone has 16 signatures, the students should be asked to sit in a circle.

If the question has been to find out something unique about a person, then the facilitator asks for a volunteer who would state their name. Each student crosses off that name from the bingo sheet, and tells the group what they found out about that person. After enough talk has been generated, the first volunteer selects another person and the process is repeated.

If this procedure has not been used, but merely a signing of names and collection of some other data, the facilitator merely calls out names from his roster, asking those whose name has been called to raise their hand so everyone will know who they are. Students then cross out that name if it is on their bingo sheet. The

winner is the first student to get a line horizontally, vertically, or diagonally.

After the winner is determined (and is awarded the toy BMW you have brought to class), the whole group can share what they heard about expectations, etc.

Cross-Interview

One of the most useful and powerful techniques for getting a class started on the right foot is a simple Cross-Interview Exercise. At the same time, you can help get students over their initial anxiety, get them to know each other a bit, and collect some extremely useful information for designing the course appropriately to their needs. You also make it known that this is your intent, that you are supportive of their learning.

Without an introduction, simply ask your students to mill around the room, talking with one other person at a time. Ask them to start with a person that they know the least well in the group and share some basic information about themselves: their name, where they work, what kind of things they do, etc., and to similarly interview that person for no more than a minute or two. You may also request that a special question be asked of each student interviewed. The question might most appropriately deal with the content of the course, such as,"What do you hope to get out of this course? " or "What sort of background do you have in _____?" The nature of the question depends upon the content of the course, and you should design it to elicit useful information. When your students have had an opportunity to meet with a dozen or so other people in the class, which requires about twenty minutes, ask them to sit down again. Lead a discussion of the interviews. You might ask them about the interesting things they heard from other people, and write these on the chalkboard so as to develop list of material to work with. The exercise gives people a sense of themselves and of each other and begins with some definitions of what the course is all about. During the feedback session, you have an opportunity to interject your ideas, your concepts, your definitions, and at the same time inform the students of the nature of the course.

Introductory exercises such as these are important and useful. The examples described above merely scratch the surface. Probably the most appropriate and useful thing would be to try a few of these, then begin to design your own. How can you best meet the initial needs of your students, get the information you need for fine-tuning the content of the course, and help your students become comfortable with their learning role?

DISCUSSION TECHNIQUES

One of the most useful facilitative teaching techniques is small-group discussion. Since it is so common and important, it is discussed in detail here. When considered as a process technique, group discussion needs to be as free flowing as possible and based on the needs, interests, and backgrounds of your students – not a euphemism for a softer kind of lecture.

Discussion approaches are well suited to a variety of course goals:

- Discussion provides the instructor with feedback about student learning. A major limitation of one-way lectures is lack of information about what students are learning. Discussion sessions overcome this by using both instructor and student questions, student comments, elaborations, justifications, etc. These interactions allow the instructor to measure student understanding.
- Discussions are appropriate for higher-order cognitive objectives: application, analysis, synthesis, and evaluation. Discussions permit and encourage the student to introduce, explore, and refine ideas in ways that are impossible in a didactic approach.
- Discussions are appropriate for affective objectives: to help students develop interests and values, and to change attitudes. Discussions can do more than change minds, they can change hearts – the way we feel about an issue.
- Discussions allow students to become active participants in their own learning. This increases their motivation to learn, and makes the learning more interesting.

Weaknesses of Discussion Approaches

Like everything in life, discussions have not only advantages, but disadvantages:

- It may be difficult to get student participation. Discussions can be threatening to students. In lectures, the student's ignorance can go undiscovered. To participate in a discussion means to risk both being wrong and being found out. Also, there may be peer pressure not to excel. There are still students who prefer the "Gentleman's C." In some cultures, it is considered inappropriate for the individual to stand out. And some subcultures don't place a high value on intellectual achievement.

- Discussions are more time-consuming than didactic presentations. The pace seems slower; not much may seem to be happening.
- Discussions are thus not as well suited to cover the sheer quantity of content as is a didactic presentation. As instructors, we must wrestle with the issue of how much content to cover versus depth of learning.
- Effective discussions require more forethought than do lectures. They are not opportunities for the instructor to take a break; yet preparation cannot insure that the discussion will follow the anticipated direction. After a few bad experiences, the instructor may take refuge in the more-predictable lecture method.
- In discussions, the instructor has less control. To some extent we must go where the student's questions and interests take the group.

Use A Common Experience

Discussion sessions will be more focused and productive if they deal with something your students have all experienced. Choosing something from a student's real life provides one tactic. Providing a common experience by means of reading, film, etc. is another. Make sure that your students have sufficient information to make the discussion productive. Sharing ignorance benefits no one. If lack of data is hindering or distracting the discussion, you may need to provide additional information.

Acting as the facilitator is the instructor's primary role in group discussions. Most of the content should be covered before the discussion, either in previous lectures, readings, films, or other sources, including student's experience. The following behaviors tend to be facilitative:

- Listen. Attend to the point students are trying to make, not just your points. Attend to their feelings as well as their thoughts.
- Observe. Pay attention not only to the content but to the group process. Who is responding to whom, and who is typically ignored by the rest of the group?
- Allow for pauses and silence. Students need to be given time to think. In this exercise, the most difficult skill for college-level teachers is to keep quiet. This is necessary if students are to answer complex, higher-order questions.
- Post and verify what individuals are saying. Periodically take time to summarize or write on the chalkboard your

understanding of the problems, positions, solutions, or responses being put forth by the students. Then check to see if your understanding is correct. When writing on the chalkboard, try to use simple phrases. Show relationships between ideas by using diagrams.

- Request examples or illustrations. Almost all writers agree that using examples helps people learn. The more complex or abstract the material becomes, the more helpful illustrations become.
- Encourage and recognize student's contributions. Broad student participation enhances learning. Be especially alert to nonverbal clues that students who do not participate much have something to say: when they seem to, call on them. Occasionally comment positively on a student's contributions. Do not do it every time, otherwise it becomes meaningless.
- Test consensus. If everyone agrees, then there will be no further discussion. Be aware of premature agreement. If the group seems to have reached a consensus, test this by paraphrasing your understanding of that agreement. Often, only the habitual talkers have agreed and there may still be opposing positions to be explored.
- Provide a summary and/or conclusion. By taking a few minutes now and then during the discussion – or at least at the end – to summarize the main points that have been discussed, you provide your students with a sense of closure and help them remember. If the topic is not to be discussed further, make explicit any conclusions that have been reached.

Following are some suggestions to encourage interaction among your students:

- Ask your students for clarification if their comments seem to be incomplete or unclear.
- Ask students to support their opinions. Sometimes students, especially inexperienced students, think it is sufficient simply to have an opinion, but in most community college courses, one's opinion is less important than the reasons behind it. You are not so much interested in what they think as why. Make students go beyond their initial, perhaps superficial, reactions.
- Use open-ended questions: questions which allow your students to elaborate and think through their answers

rather than give a brief response with a yes or no. Use questions like, "What are the causes of ....?" or, "What is your opinion about...?".

- Use divergent questions: questions for which there are no single correct answers. Questions like, "What were the causes of the American Revolution?" are open-ended but convergent. That is, the student is likely to respond with the set of causes generally agreed upon by a historian. A question like, "What is your opinion about capital punishment?" is divergent and lets the students talk about what they think.
- Rephrase questions when students cannot initially respond. Such a rephrased question can be designed to help students focus on relevant material previously covered, or might draw their attention to some limitation or inconsistency in a previous response.
- Pause. Give your students time to reflect and think through their responses, especially with higher-order concepts. Because silence is socially awkward, you may need to train your students – and yourself – to feel more comfortable with silence.

Possible Stages to Follow

There are many instances when a discussion might be productive. Following are some general guidelines:

- Define the problem. Until there is some agreement on the problem, question, or issue, the discussion session will make little progress.
- Have students suggest possible solutions. Brainstorming – in which as many solutions as possible are proposed without discussing their feasibility – is a good approach. In brainstorming sessions, discipline is needed to avoid criticizing or making evaluative judgements.
- Collect relevant data or comments from students on the advantages or disadvantages of a proposed solution. At this stage, the focus is on elaboration rather than evaluation.
- Evaluate various solutions, positions, and conclusions. Now is the time to judge, compare, weigh, and evaluate.
- Decide upon a solution, position, etc. If at the end of the previous stage, one position clearly is better than other alternatives, you are already finished. But most questions have more than one good answer. In such cases, the group must decide which position they choose to embrace.

Affective Aspects and Discussions

Many academics tend to consider college as primarily, if not exclusively, an intellectual or cognitive experience. Such a conception of college ignores at least two considerations. First, individual students often bring to college feelings, interests, and values that hinder an objective understanding of content. Second, college is about values: values like logical thinking, clear expression, appreciating the subject material, and being responsible for one's own work. At a more profound level, college is also about what kind of person one aspires to be, what kind of world one wants, what life is about. Our teaching is value-laden, and appropriately so. Discussion techniques are well-suited to many of these concerns. The following section on the affective aspects of discussions is included for this reason.

Know Your Students. Start the discussion with something relevant to your student's interests and goals.– something connected with their experience.

Be Patient. Discussion classes take more time to get going. Don't you don't talk too much – especially in the beginning.

Be Sensitive to Student's Feelings. Sometimes students suppress their negative feelings, yet present obstacles to learning. Sometimes students give arguments that don't foster learning. Sometimes students attack the teacher's approach. You may want to get these feelings out into the open and talk about them.

Challenge Students, But Don't Threaten Them. This can be a very difficult balance to achieve. You want to arouse your students enough to stretch them but so much that it becomes counterproductive. This is especially difficult because what may challenge one student may distress another. Some suggestions are:

- Don't question a single student for too long. If the student cannot respond after a second focusing question, move on to another student. Demonstrating how much an individual student does not know doesn't serve a useful purpose.
- Use personal anecdotes. Using your own experiences, showing that you're human, can set the tone and facilitate discussion – in moderation.

Avoid Premature Agreements. We have already talked about testing for consensus. You may wish to ask a student or group to argue against the apparent consensus, or you may want to play devil's advocate with it, carefully avoiding being so convincing that some students will consider you to be intellectually dishonest. Make it very clear to the students that you are doing this to bring out

further information and to explore possible objections to the chosen solution.

Deal With Conflicts, Don't Ignore Them. A helpful first step is to define the apparent area of conflict. The problem may simply be cognitive misunderstanding. You may want to list the pros and cons on a chalkboard, or may want to have the opposing sides debate the issue. Address the conflict in an explicit manner. Following are some recommended techniques:

- When in doubt, be silent.
- Hear students out. Concentrate more on the points students are trying to make than on the points you want to make.
- Inquire. Ask students to elaborate, clarify, expand, explain, explore, etc.
- Paraphrase what a student has said: first to check your understanding; second, to show you are listening. This is also helpful behavior for students.
- Be accepting rather than judgmental or evaluative. Try to focus on the "correct" part of the student's response. It is positive reinforcement that fosters learning.

Regarding Participation

Following are some suggestions for increasing student involvement and interaction in discussions.

Create the Expectation of Participation. Arrange the seating so that your students may easily see one another. Seat them around a table, or in a circle of chairs. Make yourself part of the group, seated in the same way. Help students get to know one another. (See the Cross-Interview Exercise, above.) Get the students talking. Get them to learn each other's name. (See the Adjective Game, above).

Clarify How Participation Will Influence Grades. Do this early and clearly.

Avoid Always Looking At the Student Speaking. Socially we are conditioned to look at the person who is speaking. If you, the instructor do this, the students will speak to you and not the group. Student B may be responding to something that student A said, then you might look at student A. Also look at the other students to see how they are reacting to the speaker. Use gestures and nods to direct the student's attention to other students, and not to you. Or simply say,"Talk to A."

Control Excessive Talkers. Following are some guidelines:

- Don't call on known talkers first; wait to see if someone else raises their hand or volunteers a comment.

- Solicit responses from nontalkers. Be alert to nonverbal clues indicating that they have something to say and call on them: "Did you want to say something?" or, "Let's hear from some of you who haven't said anything yet."
- Objectively observe talking patterns and discuss them with the class. This usually motivates talkers to modify their behavior.
- Or you may have to privately speak with the "talker" outside the class.

The Instructor's Role As Group Leader

Many of the "gate-keeping" responsibilities defined in group process literature are also appropriate in class discussion groups:

- Call the class to order.
- Help the group clarify its goals. Even if the goals are primarily those of the instructor, they should be clearly defined. In more flexible groups where students have a major voice in determining goals, such clarification becomes essential.
- Keep the group on track. Sometimes this can be done by simply calling attention to the fact that an individual, or group, is wandering.
- Clarify and mediate differences.
- Summarize and draw conclusions.

(Most of the guidelines above were taken directly from Idea Paper #15 of the Center for Faculty Evaluation and Development, Division of Continuing Education, Kansas State University, January, 1986)

Small Group Activities

Small groups or team-learning can be advantageously used for many classes at Pima Community College:

- Lectures and other instructor-centered activities invite passivity on behalf of the students. Hence, our emphasis on facilitative techniques. Small-group activities invite and encourage activity – and thus facilitation.
- In small groups, people have less chance to "hide," a cause for some anxiety; or to be "forgotten," a cause for feelings of insignificance.

- People tend to speak up more freely in small groups than in front of the whole class.
- A certain amount of helpful competition is created by giving the same tasks to a number of groups. This helps to keep the groups "on task" and often increases productivity.
- In a large class, a person may feel little responsibility for the success of the course. In small group tasks, he/she has a greater incentive to contribute.
- Individuals tend to work harder in small groups than in large ones.
- With a number of small groups, each student has more "air time" – more talk time and opportunities for learning.

SIMULATIONS

One of the most fascinating and useful facilitative techniques is simulation. Although less vicarious than traditional classroom approaches, simulations are still not part of the real world as would be a cooperative education job or a medical student's involvement in a community clinic. Nevertheless, reaction to simulation is much more "real" than to a lecture or a reading assignment, and is extremely useful particularly in "personalizing" learning.

Simulation techniques include role play as well as a number of games and exercises. Techniques of simulation and gaming are being increasingly researched, and variety of effective techniques are now available. Using these as models, an instructor may generate techniques that uniquely suit a particular subject area or discipline.

Role Play

In role play, the content of the play and the personality of the characters emerge naturally from an event in the learning group. This activity is recommended for:

- Developing attitudes, opinions and feelings about certain persons and events.
- Assisting learners in developing insights into their own and others' motives and behaviors.
- Practicing new behaviors involving structural situations in a relatively safe setting.

Group size can vary from two to six. It is often useful to undertake simultaneous role plays with small groups throughout

the classroom. The time required may be from from five to twenty minutes.

Role play may either be structured (determined ahead of time with assigned roles and carefully planned parameters) or spontaneous (developed during discussion). Following are examples of kinds of role play:

To demonstrate a particular behavior. In the basic counseling skills workshop, for example, a participant may have difficulty in explaining a type of client who occasionally presents a problem. The facilitator suggests, "Why don't you give us a short demonstration of a situation involving such a client? Christine, think for a moment of a recent incident involving this kind of person. One of us will be the intake worker and you'll play the client."

Two chairs are moved into the center of the room. The other students rearrange their chairs for a good look, and off you go. As soon as a pattern emerges, stop the action: "Is that the type of situation you were describing to us Christine?" The role play can end here if the facilitator wants only to clarify the type of client. If, however, this is also a good time to deal with different ways of handling such clients, the role play could be continued: "Christine, would you try something? I'd like you to switch chairs now and be the intake worker." The other person ("O.K. with you Fred?") now plays the client in the manner you have demonstrated: "Let's see how you handle the situation? Anytime you feel you're getting stuck and wish you could try the interview over again, just stop."

To obtain insight into another's behavior. During a supervisory skills workshop, two participants may explain how they find it difficult to work together "when the pressure is on." The facilitator may suggest that it might be useful for both to experience the world from each other's viewpoints. A role play can be set up so that each one takes the role of the other. They're instructed to have a conversation about their difficulty to function well under pressure. The facilitator may take the third chair and act as a neutral third party to assist each in talking about the other's problem while "in the other's shoes." After a few minutes of sharing their perceptions in this role reversal, participants may be asked to switch chairs and continue their conversation in light of the information they have just received.

To try out unfamiliar behavior. The facilitator may describe ways in which a job applicant might act assertively during an interview: "I know it's easy for me to talk about these techniques, but you are the ones who have to go out and be interviewed. You're probably skeptical about how they might work, but practice." The facilitator then sets the scene for a quick interview and asks one person to be the interviewer and another the applicant. The latter is

instructed to, "Just be yourself. The way you would in a normal interview. This time I'd like you to use the technique we have just discussed. Concentrate on that one technique alone and see how it suits you." This situation could be undertaken in groups of two throughout the room simultaneously, or as a demonstration with all others in the room watching one pair. Or it can useful to add a third person to each group as observer to give feedback after a few minutes of the role play.

Four distinct steps usually occur in well-run role play:

1. Setting the Scene. As facilitator, your task is to prepare the group for the role play and provide a valid reason for its use. Several strategies are available:

A. You can start with a discussion during which you post the number of problem situations that have been elicited from the group. During a leadership class, for instance, you might pose a question, "What do you see as the most common mistake that a chairperson can make when opening a meeting?" From the discussion, a list of typical errors is generated. You then suggest that one way they can get a feel for the difficult task of opening a meeting is for the group to engage in a short role play where one person acts as the leader and others as a participants.

B. You can give a lecturette (a prepared speech lasting no longer than five to ten minutes). You could present research findings of "common leading mistakes" with special focus on the manager at the opening phase of the meeting: "Here are some of the problems you'll have to deal with as leader. Now let's do a short role play to see how it feels being a chairperson and a participant in such a situation."

C. You can show a film about a group struggling through a meeting, and stop the film at a point where the group begins to spin its collective wheels.

D. You can provide your students with a written case which outlines a situation like the one described above.

2. Role Play. Be very specific in your instructions, then get on with it. The longer you talk about role play and the technique, the more you talk about what might happen, the more you can raise anxiety in group members who have never participated in such an event.

A. Assign specific roles to people. Ask for volunteers or ask individuals if you think they might do a good job on a part.

Short written descriptions of less than fifty words can be helpful, but don't set out whole scripts or lengthy role profiles. Give players a moment to read the material. Get them to define their role.

B. Instruct those not involved in the play to situate themselves so that they can observe.

C. Give observers clear instructions on what to look for or what to write down to report after the role play. Prepare them to be active observers.

D. Get the role play started. If prepared roles are used, let the play run for a little while and stop as soon as the point has been made. Unless your participants get stuck, it is best to stay out of the way while you jot down your own observations.

E. End to the play with something like, "You seem to have reached a point where we can break." or, "Please take another two minutes and then we'll stop." Do all this before things get boring or before the session becomes too heated. Between ten and fifteen minutes duration is usually right for a role play session.

F. There are several ways to intensify role play. One is role reversal where you ask players to exchange roles and continue the play on the spot. This can be particularly interesting in "us versus them" situations. Players can now experience how life looks from the other's viewpoint, or different people can display different approaches to a given situation. This can be particularly useful in political science or other such classes where controversial issues are raised.

Still another way to intervene is through a brief interview of the players. You might ask a player, "How's the interview going for you?" or, "Do you want to take a different approach?" or, "What would you like to do differently?" or, "Let me make a suggestion. Look at the technique that we wrote on the flip chart earlier. Which one might help to get this interview flowing again?" Once the players have been given this little push, get out of the way and let the play take its natural flow.

A third intervention technique is based on paradox. Before asking the players to, "do it the right way," instruct them to go with what might come more easily. For instance, in a workshop on interviewing techniques. you might say, "See if you can demonstrate an interviewer who is not really listening at all to the client." After a further few minutes of role play, stop the action and invite the

interviewer to switch and try to, "demonstrate as many active listening skills as you think might be appropriate."

3.. **Debriefing.** Ask the role players to report how things went for them. No long dissertations are needed here, just a quick summary from each to get their view of the situation while in role, and at the same time to allow them the emotional release they might need to step out of the role. Assist players to step out of their roles. A player may want to change chairs to physically and symbolically move away from the role so as to rejoin the group. Ask observers to report what they saw and heard. Ask them to describe actual behavior rather than interpreting meanings. The clearer the instructions are to the observers at the onset of the role play, the better the quality of commentary at this point.

4. **Closure.** Assist participants to integrate role play results with material previously discussed. Have them answer the rhetorical, "So what?" or, "What can we say about effective ways of opening a meeting?" This is also a good time to thank role players for making the effort and taking the risk. Perhaps it might be appropriate to make some light-hearted comments about what happened. Counteract identification of individuals with negative roles: "Thank you, Margaret, for doing such a good job playing the part of an ineffective manager. I'm sure we could all see parts of ourselves in the way you portrayed that character."

Ten Tips for Constructive Role Play

Following are ten tips for conducting role plays capable of developing specific skills in specific situations:

1. Determine the purpose of the simulated situation. List each ability you want the participants to develop.
2. Design exercises that focus on the development of these abilities. The success of the role play depends on how successful you are in developing the script and role descriptions that suit specific objectives.
3. Outline the scenario. Decide on the name and nature of the simulated organization, and the number and types of roles. Sketch out the scene for the roles.
4. Use a plot line and props that are believable and consistent. Use realistic characters and events, and keep within rules and procedures that might actually be used in the environment depicted.

5. Provide relevant roles for participants. The best role players work with situations with which they are familiar. Such replicated situations allow all players to assume parts for which they have the necessary experiential and technical backgrounds. Learners should have some orientation, such as a job-related film, before participating.
6. Challenge participants. Ask them to generate and choose among alternatives. Train them to generate options and select alternatives from which decisions can be made.
7. Check to see if the participants have enough time to become familiar with the play and analyze and generalize from it.
8. Give feedback. Emphasize the positive features of each performance. Try serial role plays: Act one, play, discuss it. Act two, same role play. Analyze the slightly altered situation through discussion.
9. Test the role play with a small group. Use students who have had experience with experiential techniques. Analyze the results and make any necessary changes.
10. Solicit feedback from the participants. Ask how relevant the role play was in developing extra skills and how realistically the scenario reflects the role instructions.

Structured Simulations

A variety of structured simulations are available in the literature, particularly the literature of organizational training and development. These can be extremely useful in classroom situations when used in a facilitative style. Since the materials are available in some detail, they will not be discussed here in great detail, but merely introduced.

One of the most common simulations – one that has been effective in helping students to look at concepts such as team operations, group decision-making, leadership, and participation – is the Moon Trip Exercise, also known as the NASA Simulation. The concepts simulated here are extremely useful in demonstrating the world of work. In this exercise, students represent crew members on a spaceship traveling from the earth to the moon. The spaceship crashes on the surface of the moon some 200 miles from a spot at which it was intended to land. Although no one is hurt, the equipment aboard is damaged and the task of the crew is to rank, in priority, the undamaged materials. The materials are to be used for their 200-mile walk across the surface of the moon to the safety of their base of operations. The materials include such things as oxygen, water, pistols, a parachute canopy, first-aid kit, dried milk, and several of other items Individually, based on their knowledge of the surface of the moon, the students are asked to list the items in

accordance with their importance to survival. The students then get together as the crew to make a group decision with which they can all be comfortable using consensus decision-making techniques.

The processing of the data illuminates the techniques used within the group to share information and to make decisions, as well as the relationship of the quality of the techniques to the quality of the final decision. Individual students are helped to evaluate their own performance in the group in such issues as leadership, participation, attention to the task, and others. A score reflects their skill in the utilization of those techniques.

Similar exercises that are available based on other such themes: a plane crash in the desert, survivors on a raft in the Pacific ocean.

Another simulation is the *blue/green* game. This illustrates the concept of competition and cooperation among departments of a business and helps students to learn the effects of competition and cooperation through the outcome of their work. A similar and very closely related structured experience commonly used in management training is known as *The Prisoner's Dilemma*.

Another set of materials is known as *Simsoc*, for *Simulated Society*. Normally used in a weekend retreat, it helps illustrate some of the issues involved in all social relationships.

Perhaps the most important aspect of a simulation, is that once familiar with its use, the facilitator can tailor simulations to fit unique class needs. These materials are more real than traditional classroom approaches, and yet do not have the risk or threat of real-world situations. They are excellent learning devices – when processed carefully.

Case Studies

Similar to role play and structured experiences, case studies are a common and highly relevant technique for the facilitative teacher. They relate well to student experiences, and may even be directly generated from those experiences. A number of reference materials are available which give cases. Perhaps the most common way to find cases is to simply look in the back of the chapter of your textbook. Further, relevant cases can be written by the teachers or by the student from their own life experiences. The total group discussion approach to case analysis is useful if the group is not too large, or if the case is relatively simple. Small groups can be used within the total group to generate a variety of approaches or a variety of answers to the case, or to work with different cases simultaneously.

To focus an approach to the study of a case, the teacher can prepare a simple handout asking generic questions that can be applied to any case.

One of the most effective ways to utilize cases is to ask the students individually, perhaps as homework, to generate a case related to their own work situation. At the next class, students swap cases to develop solutions. Individuals can then report to the total group – or to a small group first.

PROJECTS, LABORATORY METHODS, ASSIGNED READING, AND RESEARCH

Projects

Projects are also essentially facilitative since the topic is based on a student's experiences, and the teacher is more a support to the learning process than a source of information.

Projects can help students reach the objectives of the course more completely than almost any other method – if they are really relevant and not busy work. Usually shorter projects are better, simply because they better fit students' attention span. If such projects are well integrated into the course, they can provide insights that – with proper reporting or discussion – can serve the entire class.

Projects must be carefully chosen, however. A small group project might be best in an automotive class, for example; but in an art class, the project would probably be best left to an individual. In either case, results of the project should be shared with the total class to get maximum value.

Laboratory methods are similar to projects, and are particularly relevant in vocational programs. Even here, laboratory methods are introduced by lectures and discussions. Students learn from experience, and hands-on methods frequently are the most efficient. Many automotive students learn more in their backyards about what makes a car go than they'll ever learn in books. Data processing concepts are merely words until the student works on the computer. Art appreciation lectures will never teach the student to be an artist. But you don't have to go to jail to understand law enforcement; and the lab method is definitely out for sex education!

Assigned Reading and Research

Do you have a lot of material to cover and just don't have enough time to do it? Do you want the participants to do preparatory work?

Following are some pointers related to Reading and Research:

- These activities are a recommended method of delegating responsibility to the learner.
- Such assignments free the instructor to concentrate on essential or complex information.
- Emphasizing techniques and results of such assignments gives students some guidance and encouragement to be responsible for their own learning.
- Be careful in developing annotated reading lists. Adults are even less tolerant of "busy projects" than are children. Assignments must be relevant and within the grasp of the learner. Most adults do not have experience in library research, nor do they access to a library with any degree of ease. Reading or research may be done outside of class time, but there must be time for the material to be presented and discussed in class.

Following are four suggested steps in establishing reading or research assignments:

1. Define an area for additional reading or research in which students have a choice. It's more exciting for students to explore subjects they choose rather than one the instructor assigns.
2. Provide guidance on what to look for, where to find it, and what to do with the material.
3. Set firm conclusion dates, and spell out consequences for late completion.
4. Reading research material should be put to maximum use. This can be done by using buzz groups, teams, discussions, presentations, or question-answer sessions.

In a course in which a great deal of current information can be gained from magazines or journals, you may have your students select one or two magazines or journals and regularly report to the class on relevant articles. As the facilitator, you may, along with the class, then incorporate the information into the basic course material.

Should you wish to try this, do it on a small scale first. Some students tend to take off on petty issues and arguments. Others may withdraw and feel that their time is wasted. Your efforts, under these circumstances, may be more directed to keeping the class

moving in the right direction, as well as facilitating learning and dispensing knowledge.

Instrumentation

A less common but extraordinarily powerful facilitative approach is the use of instruments. In this context, "instruments" means questionnaires, quizzes, and fill-in type tests such as are often seen in magazines. The objective is to help students develop a greater understanding of the subject matter of the course – and of themselves.

Such instruments can preclude the necessity of the teacher being an expert presenter of the material. Further, they help the student to learn to self-acquire and self-appropriate information based on his own experiences.

Since the use of such instruments is only relevant to certain courses and topics, they will be discussed only briefly here.

One interesting instrument which can be used to help students understand and develop a sense of responsibility is called "Internal/External." Based on William Glasser's work, it asks a series of forty questions which can be answered yes or no. The questions deal with the student's view about the importance of luck and the basic sense of control in their lives. The score tabulates on a spectrum of Internal/External. Internal means a student who sees himself as internally motivated: "I am the master of my fate, the captain of my soul". This student realizes that what happens to him tomorrow is a reflection of what he does today.

On the other end of the scale is the student who sees himself controlled by powerful outside forces. He is at the whim of chance rather than in charge of himself. The score can be discussed in the relation to national norms, and in relation to the student gaining an increasing sense of control of his own destiny. For that matter, Glasser made the point that the more people recognize that they are in charge of their own life the more they actually can be in charge. The more they are proactive, the less they are reactive persons.

Another crucial instrument that has considerable utility when used properly in social science classes is FIRO-B. The acronym stands for Fundamental Interpersonal Relations Orientation - Behavior. Based on the work of William Shutz, it lets students explore their relationship pattern in terms of three dimensions: Inclusion, Control, and Affect, and for each of those whether that behavior is expressed or wished for. Students can then evaluate their scores relating them to others in their lives: husband to wife, children to parent, and to superiors or subordinates at work. It helps a student to experientially understand their own relationship problems, and may stimulate them to think about the difficulties

that may be caused by those patterns and how to begin to make changes.

Many other instruments are available, all of which require some skill in utilization and practice as a participant before they can be effectively used in class.

CONCLUSIONS

Facilitative techniques – those techniques that are dependent not upon the teacher's expertise but rather on an understanding of how people learn – are undoubtedly the direction in which community college education should be moving. Our tendency is to limit ourselves to didactic techniques, to essentially merely presenting information. Didactic technique is essential, and is the foundation teaching technique. But we should mix in these extremely useful facilitative techniques. However, facilitative techniques require specialized skills, and require that we concentrate on the broader purpose of teaching. The competent community college teacher needs to help the student become a learner, not merely learned.

Chapter Nine

SOME OTHER ISSUES

TESTING AND EVALUATION

Most of us do not like to be put into the position of judging others. This is especially true if we would like to see all our students succeed. Yet it is necessary to assign grades. Assigning grades is simply the process of ranking students according to their achievements. There is nothing particularly hard about it if you have set your standards at the beginning of the course – before you get to know your students. Actually, grading helps students to measure their own progress.

In general, it is best to have many bases for final grades. You should not have to make a decision at the end of the course when you'll need to get your grades in on time. More importantly, it helps the students avoid blowing it all on a single two-hour final or some rather limited criterion for grading. In any one test, a student may be tired, sick, or having personal problems. Performance and achievement are better measured when several tests provide incremental measurements throughout the course, and when there are other criteria for grading.

Use of testing as a source of feedback is even more important. You need to know – and students need to know – what progress is being made. Frequent testing gives useful feedback – but only if there is adequate evaluation as close to the time of the test as possible. Students should be made aware that the tests and grades are part of learning, and that they can learn to achieve through them.

Quizzes and Exams

A quiz or exam is a means by which an instructor can estimate achievement through "sampling" techniques. We should make up questions which motivate the student to develop organized recall – during study, and at the time of the test itself. Many types of tests have been developed, each with strong arguments in favor of them. But basically there are two generic groupings: (1) Subjective, in which students are allowed to choose and phrase their own answers within prescribed limits. (2) Objective, in which students are expected to fill in blanks with the correct answers. Both types provide specific benefits, and probably no instructor should use one or the other exclusively.

The problem-type essay is a subjective test that allows students to organize answers around a selected problem. It discourages

dependence on strictly rote memory, and tends to encourage students who like to write. This kind of test provides the instructor with a clear picture of the student's mastery of the material. On the other hand, the problem-type essay cannot give you a large sampling of the material being covered, and requires much more time and effort to grade. In addition, you may be somewhat influenced by handwriting and neatness. Should you be? This is a judgment you must apply. Some instructors consider functional literacy to consist of both well-organized answers and good composition – a reflection of real-world requirements. Others place emphasis on the quality of the content.

Objective tests are so called because the answers are readily quantified. The assumption is that because of this quantification, the mastery of the subject is more easily measured and is less instructor-biased. Yet, it should be remembered that so-called objective tests are samples of the course material, and the instructor biases the test in selecting and phrasing the questions. It is usually very difficult to prepare a true/false test without ambiguities – as any instructor discovers who has ever reviewed the results in the classroom. One way of overcoming such ambiguity is to face the possibility squarely and state at the start that the statement is either all true or all false and that it is false if false in any part.

Multiple-choice and matching questions are in the same category. They provide easily quantified results but may have ambiguities. However, objective tests give you and the student greatest possible area for sampling. They are less opposed by the student, and they are easier to score. On the negative side, they place a premium on rote memory, and can sometimes be answered correctly by mere guessing.

Basically, objective tests are more suitable to didactic, content-transfer kind of education, and subjective tests are more relevant to facilitative approaches.

A well-built exam should include questions of all types: some essay problems, some definitions, some organization and application, and some true/false and matching.

Some Specifics On Types Of Tests

Multiple-choice tests present several options. Alternatives should be clear enough so that only one answer can be correct.

A short-answer test includes a statement with enough room for a brief answer. Sometimes more than one answer is acceptable: "An advantage of a CD is a _____" (Answers could be that it is federally insured or that its end date is fixed.)

True-False tests present a statement and ask if it is true or not. Do not try to be tricky, and do not use words like "sometimes"

unless there is a real reason to do so. "The first actress to win an academy award in motion pictures was Katherine Hepburn" Answer: False.

Term papers are usually fairly long and should be assigned early in the course for submission at the end. Be sure that your students understand the assigned subject matter, length, and presentation requirements: "Discuss the various sects in the Moslem religion and how they are influencing the politics in the Middle East in a paper about fifteen pages long. Include your bibliography."

Essays are written discussions done at home or in the class. Be specific: "In two pages or less, give the dates and highlights of the six major civil rights bills which were passed by congress in 1957-1975." Other introductory phrases may be: "Outline," "List," "Contrast," and, "Give your opinion of."

Oral reports are, of course , reports presented verbally to the class: "Give a ten-minute talk on 'Gone With The Wind' covering characterization, plot, the environment, style, and your personal evaluation."

Open-book is a written test during which the students may refer to any sources brought to or already in the classroom. This type of test can be used when large numbers of unmemorized formulas or rules are involved, when selection of the material within the sources indicates the comprehension of the subject, or when the question is so large that students must reference sources to facts such as dates. "Using your books, trace the history of immigration to the United States."

Matching usually involves two columns. The purpose is to test memorization of information.

Lab tests include hands-on work such as writing a program, doing an experiment, or producing an actual costume for a design course.

Simulations are another type of hands-on activity where students are doing actual work: "Set up a ledger for the ABC Company using a financial statement shown in the question."

Problem tests require students to answer questions involving calculations, rules, etc. where there is usually is one correct answer: "How many kilometers are in 100 miles?"

PLANNING THE TEST

Following are tips for planning tests:

- Tests must be valid. They should have a realistic time limit. They should be applicable to the whole group, and they should be expected to elicit answers that are similar or

within an acceptable range. There should not be too many variables unless the course is advanced or the variables themselves are part of the learning process. They should measure what has been covered. How many times have you heard students say, "But we never covered that topic at all." However, sometimes tests are given for diagnostic purposes – at the beginning or during the semester; then, of course, regular rules don't apply.

- Don't give students surprise tests. Adult students have a variety of study and homework timetables, and surprise tests can be very unfair.
- Questions should be clear, comprehensive, grammatical, and correct. If many replies to one question are required, break up the question into parts. Have a friend read your questions to assure that they are clearly understandable.
- Always indicate in advance what is going to be on the test. The more specific, the better. Suggest the amount of time it will take, the types of questions that will be asked, and the significance of the test on the final grade. Also specify the materials that will be required: books, rulers, programming forms, calculators, dictionaries, etc.

HOMEWORK

Homework is a truly meaningful exercise. It should reinforce learning, develop reading skills, and open new avenues of development. Its purpose is not to make people shape up or ship out, but to further education, and so must be thoughtfully planned and organized with that in mind.

Doing Your Own Homework

You should do every bit of the assigned homework yourself to assure that the assignment matches the text and sources. If the assignment requires memorization, is technical or detailed, break it into small parts, even if all these parts have to be done in the same preparation. Do not require memorization if there is no immediate use or future value, especially if the material can be easily found. Too much homework leads to superficiality, which and misses the really important points. Some adults may process information more slowly and too painstakingly to allow a good perspective of the overall objectives.

When making reading assignments, check the textbook carefully. If you are the selector, besides opting for a good textbook, be sure it is pertinent in the preceding and succeeding courses. If you must use a prescribed textbook, evaluate each section and use

only what is appropriate and up-to-date. Don't let the text book run the course.

Inform the librarians of extra assignments and assure that books get on the self for library use if there are only one or two copies, or if you want books to be circulated to your students for a limited time.

If you are giving lab assignments, try a couple yourself. Listen to lab disks; run a program or two on a lab computer (not your own); survey the science lab equipment to see if it fits your needs. Give lab assistants copies of the homework assignments, the text and the type of problems your students might encounter, and show them how to help your students.

Don't leave homework in limbo. Go over it in class in a group or with individual students. Don't take weeks to do this.

Aims and Types of Homework

Your course objectives should be reflected in the selection of your homework assignments. Homework may involve a variety of tasks: reading, writing short essays, writing term papers, preparing oral reports, group projects, answering assigned questions, solving problems and calculating repetitions, memorization, and lab work.

Materials

When assigning a text or other reading sources, remember that the student's reading comprehension, writing, and spelling level may be lower than you assumed. Tragically, this may be more true of some of your younger students than your older ones. Select texts and materials that are as easy as possible to read. Ease refers to clarity and simplicity of style, not to the subject matter itself. Survey and select material that enhances comprehension, learning, and retention.

Making the Assignment

Explain the aim of the homework: for an overview, for learning details of a process, for improving skills, to express an opinion, increase appreciation....

Suggest where students may find answers if the assignment goes beyond the regular text material. Suggest how long the homework should take. If considerable reading is involved, discuss what it covers and why. If the material is new to a student, preview and review it. If there is a new vocabulary, give definitions or suggest using dictionaries with glossaries. Be sure to be very descriptive. Tell them exactly what is required. Indicate the length of an essay, the timing of a presentation; and in calculations, where

the worksheets should be included. Allow students to question you about the homework.

GRADING

It is imperative that, instructors provide students with a written handout specifically stating the criteria to be used in determining grades. If deviation from this criteria occurs, variances must be explained to the entire class so that everyone understands the rationale for the changes. Students need to know at all times what is expected of them.

Grading criteria should be clearly set indicate weighing percentages. This may involve a mixture of criteria: attendance, class participation, assigned workshop activities, projects, exercises, in-class work and homework, and demonstrated achievement of outcomes through tests and examinations.

Grading should be as objective as possible. There is no point in giving a student a poor mark because of your own, perhaps unrealistic, high standards – or in giving a good one because the student is brilliant, even though they may not have fulfilled all course requirements.

By far the most common difficulties faced by Associate Faculty in their first teaching experiences have to do with grading students. And often the cause is unclear criteria. Be absolutely clear, from the first day, what you expect of your students and you'll have smooth sailing.

THE PHYSICAL SETTING

At Pima Community College, we believe that the faculty should never limit their teaching strategy because their assigned room has a fixed seating arrangement or is not ideally suited. Instructors should realize that for the time they have the classroom, they have the power to arrange the furniture to whatever way is necessary to enhance learning and reach course objectives. However, it is courteous to return the class to the original setting before leaving.

Many of the techniques discussed in this manual can be used in immovable chair arrangements. In other situations, it takes only a minute for you and your group to rearrange the room.

If your teaching aim is essentially didactic – based on the one-way transmittal of knowledge – availability of tables, desktops, or some other writing surface area is a must.

If your main focus is on attitude development, such as in human relations, tables may be a hindrance. People seem to have more difficulty in making personal statements while concealed

behind desks and tables. If that is the case, encourage your students to "show themselves" instead of making abstract statements. Removal of tables will help set the stage.

FINDING ADDITIONAL RESOURCES

The Pima Community College Downtown Campus has many teaching resources, some of which are not fully utilized. They are available to Associate Faculty. When you need help, be sure to seek it.

The starting point is the *Associate Faculty Manual* prepared by Dr. Ralph Wahrer. It contains a wealth of specific information: emergency, security, and health services, calendar, the college philosophy, who does what at the Downtown Campus, academic planning and information, campus support (audiovisual services, test scoring aides, advising students), and a variety of other personal information such as parking.

In addition, one of the outstanding resources of the college is the Developmental Learning Laboratory, adjacent to the library. One of the most important issues is the level of reading material for students, and it's worth your time to check with the staff at the Developmental Lab to ask about their services, particularly their readability formula. Use their services to support you in your classroom work.

Chapter Ten

EVALUATING YOURSELF

TEACHER'S SELF-TEST

This is the same Self-Test included in Chapter 1. When you have absorbed the material presented in these guidelines – and especially when you have had the opportunity to incorporate into your repertoire some of the techniques presented here, take the test again. You may find it enlightening to note the differences.

DO YOU KNOW YOUR SUBJECT, AND LIKE IT, AND WANT TO SHARE WHAT YOU KNOW ABOUT IT WITH OTHERS?

YES	NO	
___	___	I like to talk shop.
___	___	I think about my subject a lot.
___	___	I enjoy reading and keeping up with my field.
___	___	I can answer most impromptu questions about my subject.
___	___	I enjoy sharing what I know about my subject with others.

DO YOU KNOW WHAT YOU WANT YOUR STUDENTS TO LEARN, UNDERSTAND, AND BE ABLE TO DO?

YES	NO	
___	___	I have listed the theories, concepts, and practices I want my students to understand (the course goals).
___	___	I have written objectives for each course goal.

___ ___ My students have copies of these goals and objectives.

___ ___ I have discussed these goals and objectives with my students.

DO YOU PLAN YOUR TEACHING TO HOLD YOUR STUDENTS' ATTENTION?

YES NO

___ ___ I use a variety of ways to teach.

They include the following:

___ ___ *lecture

___ ___ *blackboard

___ ___ *films, slides, overheads

___ ___ *guest lecturers

___ ___ *question/answer session

___ ___ *discussion sessions

___ ___ *problem solving

___ ___ I give examples of major points.

___ ___ I give common-sense applications of major points.

___ ___ I give or ask for applications to day-to-day living.

___ ___ I reinforce or repeat important points.

___ ___ I use humor.

DO YOU USE ASSIGNMENTS TO MAKE SURE THE COURSE OBJECTIVES ARE MET?

YES	NO	
___	___	The assignments are keyed to the course objectives.
___	___	I use three or four different kinds of graded assignments.
___	___	I offer a few options on assignments.
___	___	I have weekly assignments.
___	___	I tell students why the assignments are being made, what I expect them to learn, and the value of the assignment as it relates to their grades.

ARE YOU ORGANIZED?

YES	NO	
___	___	I start and finish the classes on time, including time for class discussion and summarization.
___	___	I follow the course outline.
___	___	I cover all of the topics listed.
___	___	I have a course outline for each student. It contains:
___	___	*name and number of the course.
___	___	*meeting time and place.
___	___	*my name and how I can be reached outside of class.
___	___	*class by class calendar with topics, assignments, due dates, exam dates.
___	___	*system of grading, policy on attendance, list of texts.

DO YOU TEACH IQ YOUR STUDENTS AS INDIVIDUALS?

YES	NO	
___	___	I take attendance.
___	___	I call students by name.
___	___	I talk to students and look at them.
___	___	I monitor students' progress and talk to them about it.
___	___	I return papers right away with comments on them.
___	___	I try to learn where my students are coming from.
___	___	I am open to learn from my students.

A GOOD TEACHER IS NOT DETERMINED BY WHAT S/HE DOES IN CLASS, BUT BY WHAT S/HE IS IN CLASS. ALL THINGS CONSIDERED, HOW DO YOU FEEL ABOUT YOURSELF AS A TEACHER?

YES	NO	
___	___	Are you flexible in the class?
___	___	Do you enjoy experimenting?
___	___	Do you identify with students?
___	___	Do students identify with you?
___	___	Do you feel secure in your subject?
___	___	Do you have a sense of humor?
___	___	Do you enjoy different people?
___	___	Do you see teaching as a process?
___	___	Do you feel comfortable being a teacher?
___	___	Do you see yourself as contributing to your students' growth and change?

Count your "yes" answers and compare to the following scores:

54-50 You're close to perfect!

50-45 Keep up the good work. Your students are lucky.

45-35 You're average – but why stay that way?

35 or less: Are you underestimating yourself? Recheck your answers. If your answers don't change, you might want to take some steps to improve your teaching style and techniques. Your students will enjoy you more and you'll enjoy them more.

EVALUATION IN THE CLASSROOM

The true test of the teacher is whether or not he or she is effective in the classroom. To evaluate your effectiveness – whether or not your students learn your subject matter, as well as learn to learn – you need constant feedback. The best feedback comes through being sensitive to interplay in the classroom, to results of exercises and tests. The reactions of your students, as well as measurements of their progress, provide an immediacy that is most effective.

But for some kinds of teaching, and for some kinds of learning, feedback needs are more refined, more difficult to "read" directly. For facilitative teaching, especially, other evaluation tools are appropriate. They are also appropriate for students in evaluating their own progress. With such feedback, you have the information – and the motivation – needed to allow you to modify your teaching techniques as the course progresses.

Such evaluations should be conducted periodically: weekly, biweekly, monthly. The purpose is to track the effectiveness of specific classroom techniques.

The following guidelines apply to such evaluations:

- Go easy on yourself, or your students. Balance the evaluation questions so as to receive both positive and negative comments. Your purpose is to motivate an objective, balanced response.
- Allow time to conduct such evaluations during class.
- Share the collected information with your students, and process it. By presenting a summary of comments, you show that students' responses are important to you, and that you are not afraid to deal with issues. Your students also get a feel for each others' opinions, and can see their own in the group context.
- Do evaluations at more than one point in a course. If you wait until the end, you have no way of sharing the information, no time to implement suggestions, and no way of getting additional information on group concerns.
- Keep your evaluations. Look at them when you plan a similar approach; include suggestions that are appropriate and with which you feel comfortable. Use past evaluations to measure your development as a teacher.

EVALUATION FORMS

Periodic Questionnaire

This is the most versatile of all evaluation forms. It may be aimed at both the instructor and students. It may be used weekly, biweekly, monthly; but it should be used iteratively at specified periods during a course. It provides for evaluation of both high and low points, and asks respondents to give reasons for each rating.

QUESTIONAIRE

1. What do you consider to have been this week's (month's, etc.) most valuable experience?

   Why?

2. What aspect of today's (this week's, this month's) program could have been strengthened?

   Why?

3. Any additional comments?

(Optional) Your Name _____

Evaluation of Facilitative Environment

The following form, or your adaptation of it, will allow students to evaluate the effectiveness of role playing sessions or similar techniques.

EVALUATE THE SESSION

I. Practical Items and General Atmosphere

A. Describe the furniture arrangement and the positions of the people.

B. Describe the activity in the room.

C. How would you evaluate the atmosphere during the session?

1. Intense ---------- Passive
   1 2 3 4 5

2. Collegial ---------- Authoritarian
   1 2 3 4 5

II. Roles and Relationships

A. Teacher as Presenter ---------- Teacher as Co-Learner
   1 2 3 4 5

B. Student as Resource ---------- Student as Empty Jug
   1 2 3 4 5

C. Teacher as Expert ---------- Teacher as Facilitator
   1 2 3 4 5

Half-Way Survey

This questionnaire uses the unfinished sentence technique to obtain quite personal information about the course and its direction. It is best used at mid-term.

HALFWAY THROUGH

Our course is half-finished, and this is a good point to pause and look at what we have done. I am particularly interested in your views on the way each week's session is structured, on my performance as an instructor, and on your feelings about the usefulness of the course.

Please complete the following sentences.

1. The structure of our sessions is...

   I wish...

2. What I least like about your performance as an instructor is...

   What I most like about your performance as an instructor is...

3. I wish we did more...

4. I wish we did less...

5. With only half the course remaining, we should...

6. If I had to briefly sum up my feelings about the way this course is going, I would say...

(Optional) Signed _____

SUGGESTED READINGS

The following material, some directly related and some indirectly related to the concepts of education and teaching, has been useful to the author, not only in the preparation of this booklet, but also over years of teaching.

Argyris, Chris, and Schon, Donald A., Theory In Practice: Increasing Professional Effectiveness, Jossey-Bass, San Francisco, 1974.

Axford, Roger, Adult Education: The Open Door to Lifelong Learning, Scranton, PA: International Textbook Co., 1969.

Bail, Joe P. and Cushman, Harold R., Teaching Adult Education Courses: The Employees Training Model, Agricultural Education 4, 1979.

Bateson, Gregory, Mind and Nature: A Necessary Unity, Dutton, New York, 1979.

Benne, Kenneth D., Leeland Bradford, Leeland, Gibb, Jack R., and Griffith, Ronald L., Laboratory Method of Changing and Learning: Theory and Applications, Science and Behavior Books Inc., 1975.

Bunzel, John H., Editor, Challenge to American Schools: The Case for Standards and Values, Oxford University Press, New York, 1985.

Capra, Fritjof, The Turning Point: Science, Society and the Rising Culture, Simon and Schuster, New York, 1982.

Clark, Bouton and Garth, Russell Y. Learning in Groups, Jossey-Bass, San Francisco, 1983.

Cohen, Johnathan, Ruffin, Janice and Hillman, Linda, "Training and Education in Group Relations: Some Characteristics of the Learning Environment", Human Relations 34, Sept. 1981.

Combs, Arthur W, Professional Education of Teachers: A Perceptual View of Teacher Preparation, Allyn and Bacon, Inc., Boston, 1965.

Cross, K. Patricia, Adults as Learners. Jossey-Bass, San Francisco, 1981.

Dewey, John, Democracy and Education: An Introduction to the Philosophy of Education, Free Press, New York, 1966.

Dillon, J. T, Personal Teaching. Charles Nolan, New York, 1971.

Draves, William A., How to Teach Adults, Learning Resources Network (LERN), Manhattan, Kan, 1984.

Eble, Kenneth E., The Craft of Teaching, Jossey-Bass Inc., San Francisco, 1976.

Ferguson, Marilyn. The Aquarian Conspiracy: Personal and Social Transformational in the 1980s, J.P. Tarcher, Inc., Los Angeles, 1980.

Freire, Paulo, "Cultural Action for Freedom, Pedagogy In Process: Letters from Guinea-Bisseau,"Continuum, 1978.

Freire, Paulo, "Pedagogy of the Oppressed," Continuum, 1970.

Gagne, R. M., The Conditions of Learning, Holt,Rinehart and Winston, New York, 1970.

Gleazer, Edmund J., Jr., The Community College: Values, Vision and Vitality, American Association of Community and Junior Colleges, Washington, D.C., 1980.

Goodlad, John. The Changing American School, University of Chicago Press, Chicago, 1966.

Gross, Ronald,. Invitation to Lifelong Learning, Follett Publishing Co., Chicago, 1982.

Hamilton, Jack A. "Training Those Who Design Training Programs", Training and Development Journal 36, July, 1982.

Harrison, Allen F. and Bramson, Robert M., Styles of Thinking: Strategies for Asking Questions, Making Decisions, and Solving Problems, Anchor Press/Doubleday, Garden City, 1982.

Hesburgh, Theodore M., Miller, Paul A. and Worth, Clifton R. Jr., Patterns for Lifelong Learning, Jossey-Bass, San Francisco, 1973.

Highet, Gilbert, The Art of Teaching, Vintage Books, New York, 1950.

Holt, John C., Instead of Education: Ways to Help the People Do Things Better, Dutton, New York, 1976.

Hopkins, Giles P., "Encouraging Student Iniatiative and Involvement in Group Discussion Through Functional Group Interdependence," Dissertation Abstracts International 39, February, 1979.

Illich, Ivan, De-Schooling Society. Harper & Rowe, New York, 1973.

Johnson, Philip E., Facilitative Techniques for Community College Teachers, Media Systems Incorporated, New York, 1982.

Katz, Joseph, Teaching as Through Students Mattered, Jossey-Bass, San Francisco, 1985.

Knowles, Malcolm S., The Adult Learner: A Neglected Species, Gulf, Houston, 1984.

Knowles, Malcolm S. and Associates, Androgogy in Action: Applying Modern Principles of Adult Learning, Jossey-Bass, San Francisco, 1985.

Knowles, Malcolm S., The Modern Practice of Adult Education: Androgogy Versus Pedagogy, Association Press, New York, 1970.

Knox, Alan B., Adult Development and Learning. Jossey-Bass, San Francisco, 1977.

Kolb, David, Organizational Behavior, Prentice-Hall, Englewood Cliffs, 1984.

Marlow, Richard L, Teaching Values In College, Jossey-Bass, San Francisco, 1980.

Mckeachie, Wilbert J., Teaching Tips: A Guidebook for the Beginning College Teacher, D.C. Heath and Company, Lexington, 1969.

McLagen, Patricia A., Helping Others Learn: Designing Programs for Adults, Addison-Wesley, Philipines, 1978.

Milton, Ohmer and Associates, On College Teaching, Jossey-Bass, San Francisco, 1978.

Morris, William H., Effective College Teaching, American Association for Higher Education, Washington, D.C., 1970.

Naisbitt, John, Megatrends: Ten New Directions for Transforming Our Lives, Warner Books, 1982.

Novak, Joseph B. and Bob Gallon, Learning How To Learn. Cambridge University Press, New York, 1984.

Peterson, Richard E. and Associates, Lifelong Learning In America, Jossey-Bass, San Francisco, 1980.

Postman, Neil and Weingartner, Charles, Teaching as a Subversive Activity. Dell, New York, 1969.

Reimer, Everett, School is Dead: Alternatives in Education. Doubleday, Garden City, 1971.

Rifkin, Jeremy, Entropy: A New World View, Viking, New York, 1980.

Rogers, Carl R., Freedom to Learn, Charles E. Merrill, Columbus, 197.

Rouech, John and Oscar Mink, Holistic Literacy In College Teaching, Media Systems, 1980.

Shane, Harold G. with Tabler, Bernadine M., Educating for A New Millenium: Views of 132 International Scholars, Phi Delta Kappa Educational Foundation, Bloomington, 1981.

Smith, Robert M. , Learning How to Learn: Applied Theory for Adults, Follett, Chicago, 1982.

Taylor, Vernon L., Teaching Tips for Part-Time Teachers, Key Productions, Middleton, IL, 1974.

Teacher's College Record, Volume 82, No. 3 Spring, 1981, "Knowledge Education and Human Values: Toward the Recovery Of Wholeness," Columbia University, New York, 1981.

Theobald, Robert, Avoiding 1884, Moving Toward Interdependence, Swallow Press, Athens, OH, 1982.

Theobald, Robert, Beyond Despair: A Policy Guide to the Communications Era, Seven Lockes Press, Cabin John, MD, 1981.

Toffler, Alvin, Future Shock, Bantam Books, New York, 1971.

Tofler, Alvin, The Third Wave, Bantam Books, New York, 1981.

Tough, Allen, International Changes: A Fresh Approach to Helping People Change, Follett, Chicago, 1982.

Weinrauch, J. Donald, "Educating the Entrepreneur: Understanding Adult Learning Behavior," Journal of Small Business Management 33, April 1984.