

NEW DIRECTIONS FOR TEACHING AND LEARNING



The Changing Face of College Teaching

Marilla D. Svinicki

EDITOR

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EDITOR-IN-CHIEF

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EDITOR'S NOTES

It has been suggested (Cross, 1989) that the greatest educational reform will come not through the sweeping changes of large, institutionally mandated programs but through the small, day-to-day improvements that faculty members make in their own courses. The faculty is the first line of revolution in teaching; without their cooperation, no change is possible; with it, no challenge is impossible.

Yet, these already overworked individuals seldom have the time or training to keep up with all the instructional innovations their colleagues are exploring or with the newest findings in educational research, were they so inclined to explore them. There is a real need for "translators and disseminators" whose job it is to extract the best from the array of potential ideas and pass it along in workable form to individual faculty members. When this volume was conceived, the series editor approached just such a group of individuals (the Professional and Organizational Development Network in Higher Education) and asked them to search their collective wisdom for ideas about teaching that would be of special value and interest to faculty members and to collect and translate those ideas in such a way as to make them accessible to others. The chapter authors are faculty members as well as faculty and instructional developers and are therefore cognizant of the problems that arise when we attempt to translate the ideal to the reality of the classroom. Each has tried to strike a balance between the two by providing both the model and its practical application.

The volume begins with descriptions of teaching possibilities that the reader can adapt to his or her own class, but which represent significant changes in the way one would think about the face of college teaching. In the past, teaching has always been equated with telling; and improving teaching meant thinking of better ways to present information. The methods discussed in the initial chapters represent a change in that definition, reflecting the change in what we now know about how learning best occurs. Viewed from that perspective, the methods described are not in fact different methods of teaching but rather facets of the same reformation, the move to active involvement in learning by students.

In Part One, MacGregor describes the tenets of collaborative learning, in which students work with each other to learn jointly, resulting in significant changes in some of the more forward thinking institutions. Tomlinson reviews the bases and status of the recent push to increase the amount of writing in classes of all types. She explores the philosophy behind the movement and why its current problems may be the result of deviations from the original philosophy. Boehrer and Linsky take a very

thorough look at the case method, an old approach to teaching which is making new inroads in colleges and universities that are trying to teach complex analytic skills in the face of an exploding information base. Finally, Peters gives a glimpse of the changes in teaching that result from a changing student population and a philosophical shift from "education as selection" to "education as facilitation." He discusses the supplemental instruction concept and how individual instructors can implement it in their classrooms.

In Part Two, the volume shifts to a series of chapters that encourage faculty to take a more proactive, inquiry-oriented approach to their classes. Angelo begins the series by suggesting that a focus on what and how students are learning through the use of continuous classroom assessment will have a large impact on an instructor's ability to improve the quality of instruction, regardless of what teaching method is used. Pintrich and Johnson and Janzow and Eison describe instruments that the instructor can administer to find out who is in his or her classes and what strengths, weaknesses, and attitudes drive those students. On the basis of such information, the instructor may be able to modify the instructional methods to match the needs of the students more effectively. Lucas suggests that the instructor can become more scholarly in his or her approach to teaching by understanding and using models of human behavior that explain and predict the factors influencing students' responses to classroom teaching. These models can then be used to generate new methods for motivating students.

Finally, the last chapter deals with the next steps. Weimer provides an analysis of the kinds of materials and resources available to help instructors keep up with changes in instructional practice and theory, so that they can become self-renewing teachers.

Marilla D. Svinicki
Editor

Reference

- Cross, K. P. *Reforming Undergraduate Education One Class at a Time*. Teaching Excellence Series. Honolulu, Hawaii: Professional and Organizational Development Network in Higher Education, 1989.

Marilla D. Svinicki is the director of the Center for Teaching Effectiveness at the University of Texas, Austin, and a past executive director of the Professional and Organizational Development Network in Higher Education, the group responsible for the contents of this volume. The POD Network is an association of individuals at colleges and universities across the United States and Canada who have an interest in or responsibility for faculty or instructional development on their campuses.

Bringing the process of creative thinking to the act of changing teaching offers several alternatives for ways in which instructors can look at their own methods. But change should always be approached with caution, lest it overwhelm the instructor.

Changing the Face of *Your* Teaching

Marilla D. Svinicki

Anyone who thinks that all you need in order to teach is knowledge of course content has missed the boat. Knowing your content is only the first step toward teaching: a necessary step, but still just a first step. Teaching is more than understanding; it is helping others understand. That requires understanding “the others” and understanding “understanding.” All the sophisticated content knowledge in the world is not of much use to anyone if it cannot be communicated. Therefore, learning more about your content will not automatically make you a better teacher; you must understand and change the face of your teaching itself. The goal of this chapter is to suggest some ways to make that change without completely overwhelming yourself in the process.

Changing by Adapting Ideas from Others

One of the advantages of a volume like this is that it provides a variety of alternative ideas that can be adapted to a local situation. As is mentioned in the final chapter on resources, you keep up with what is current not because all of the ideas you come across will fit neatly into your course but rather because they serve as basic templates that can be modified according to the course, content, student, and instructor variables of a given class. The more variations with which you are familiar, the more alternatives you will have in your repertoire to solve the continually changing problems you face in teaching.

For example, the idea of using writing as a tool for learning may seem strange in the context of a course on computer programming, but brief writing episodes to document program ideas can not only help stu-

dents be more exact in their thinking about programming but also might provide an alternative mode of thinking for students who have difficulty imagining program structures from code alone. If you stop thinking about writing as an end in itself and begin to recognize the value of writing as a means to learning, the instructional possibilities become much clearer. Thus, the *idea* of writing can be used even if traditional writing assignments or extensive editing of student writing are inappropriate for your class.

Or take the example of collaborative learning. Most instructors envision an elaborate group-project process by which students work together to design large-scale presentations or position papers. But the idea of collaborative learning is much simpler than that. It simply means opportunities for students to work together on common problems. The problems might take only five minutes to solve, but there is still collaboration.

This process of adapting the ideas of others is one of the techniques of creative thinking. It involves winnowing an idea down to its basic components and then rebuilding it in a new form to fit the demands of the situation. For example, what is a pencil anyway? It could be viewed as a holder for lead; would some other receptacle for lead be as useful in a different setting? It might be viewed as a device to make marks; what other system could be used to make marks? The chapter on supplemental instruction in this volume is essentially an adaptation from a much more elaborate system. Would an adaptation of that adaptation work for your class?

The message here is, first, to be on the lookout for new ideas for your classes by sampling a lot of different sources. Several ideas and sources are described in this volume, but you are surrounded by other sources every day. There are your colleagues. Surely their teaching differs from yours in some respects. Are any of their ideas adaptable? You have to ask about their teaching in order to find out, a process not widespread in many institutions, particularly with respect to cross-department interaction among instructors. However, you can learn a great deal about your own teaching if you sit in on someone else's classes and look beyond the specifics of the content.

You can get ideas from outside the institution as well. There are some very effective teaching strategies (or at least communication strategies) on display all around us, on television, in printed matter, in museums and stores, and in the way information is packaged for rapid consumption by business executives and other busy consumers. Much as we hate to admit it, our students are consumers of our content; is there anything we can learn from everyday experience that will make them better consumers of our offerings? Of course, there is. For example, visual enhancements, summaries, contrasting ideas, the surprise or suspense factor as a motivator, and humor are all used constantly in communicating with the public and

make just as much sense when we think about ways to communicate with our students.

So one of the ways of changing your teaching is to become sensitive to ideas about teaching that can be adapted to your classes from a variety of sources. And another is to become facile at extracting the essence of ideas rather than focusing on the specifics of particular examples. For example, it is not the specific use of supplemental instruction on test-taking skills that is the point; rather, it is that there are skills required of each class that may not be in students' repertoires but could be developed if the instructor made them explicit and provided some instruction about them. It is not the full-blown case study that needs to be incorporated into your class but instead the idea that students are both motivated and helped to understanding when we provide concrete contexts for abstract principles and allow them to actively work to solve problems rather than passively receive the solutions in a lecture.

Changing by Looking from New Perspectives

Another way to change the face of your teaching is to look at it from a different perspective. This is another technique of creative thinking: view an objective from a different perspective in order to discover aspects of it that are hidden from view.

Several of the chapters in this volume encourage you to consider a different perspective on teaching. They ask you to stop viewing teaching as "covering the content" and to start viewing it as "helping the students learn." The implications of this change are great. As MacGregor (Chapter 2) puts it, we are asking you to "reframe" the roles of both teacher and student.

One change in teaching viewed from this perspective is that the focus of the class is the student, not the content. The classroom becomes a place for students to get involved in learning rather than being passive observers of the ongoing scene. We are encouraged to turn some of the work over to the students rather than to take total responsibility for what goes on every minute in the classroom. In collaborative learning, case studies, and writing, the students must tackle the act of learning themselves; the instructor guides the process but does not give "the answer." When you release yourself from the responsibility of providing all the instruction in a class and accept that students can learn a lot on their own or from their peers in a well-designed course, you will be amazed at what a different face that gives to the classroom. When you add the idea that students learn from failures as well as successes, that they can learn by watching someone else (including you) try to solve a difficult puzzle, even more of the pressure to be "right" and "perfect" is removed; teaching becomes an act of mutual learning rather than a one-person show.

Viewing teaching from the perspective of the students also implies that we benefit from knowing more about what students think and what they are like. Three of the chapters (7, 8, and 9) deal with this concept. Understanding how our students go about grappling with new information—how they organize it, store it, recall it, and manage it—can help us design ways to complement their normal methods or can help us help them to be more effective in these tasks. Understanding whether they have a predominantly learning orientation or grade orientation can increase our tolerance of student values and attitudes that are different from our own. Understanding what motivates students and how they develop cognitively and emotionally can help us remember back to what it was like “not to know” so that we can be more tolerant and more creative in helping them bridge the gap between novice learner and expert.

There are lots of other perspectives from which we might view our teaching. For example, the perspective of the person who teaches the previous course in the sequence or the next course in the sequence might be very informative. Do we even know what that person thinks is going on in our classes? Do we know what goes on in his or her classes? Angelo, in Chapter 6, cites the example of a group of engineering faculty members who discovered that they all had very different ideas about the goals of a common course. Different goals lead to very different instructional practices. If you changed the goals of your course to match those of other constituencies, what would be the effects on the class and how it was conducted?

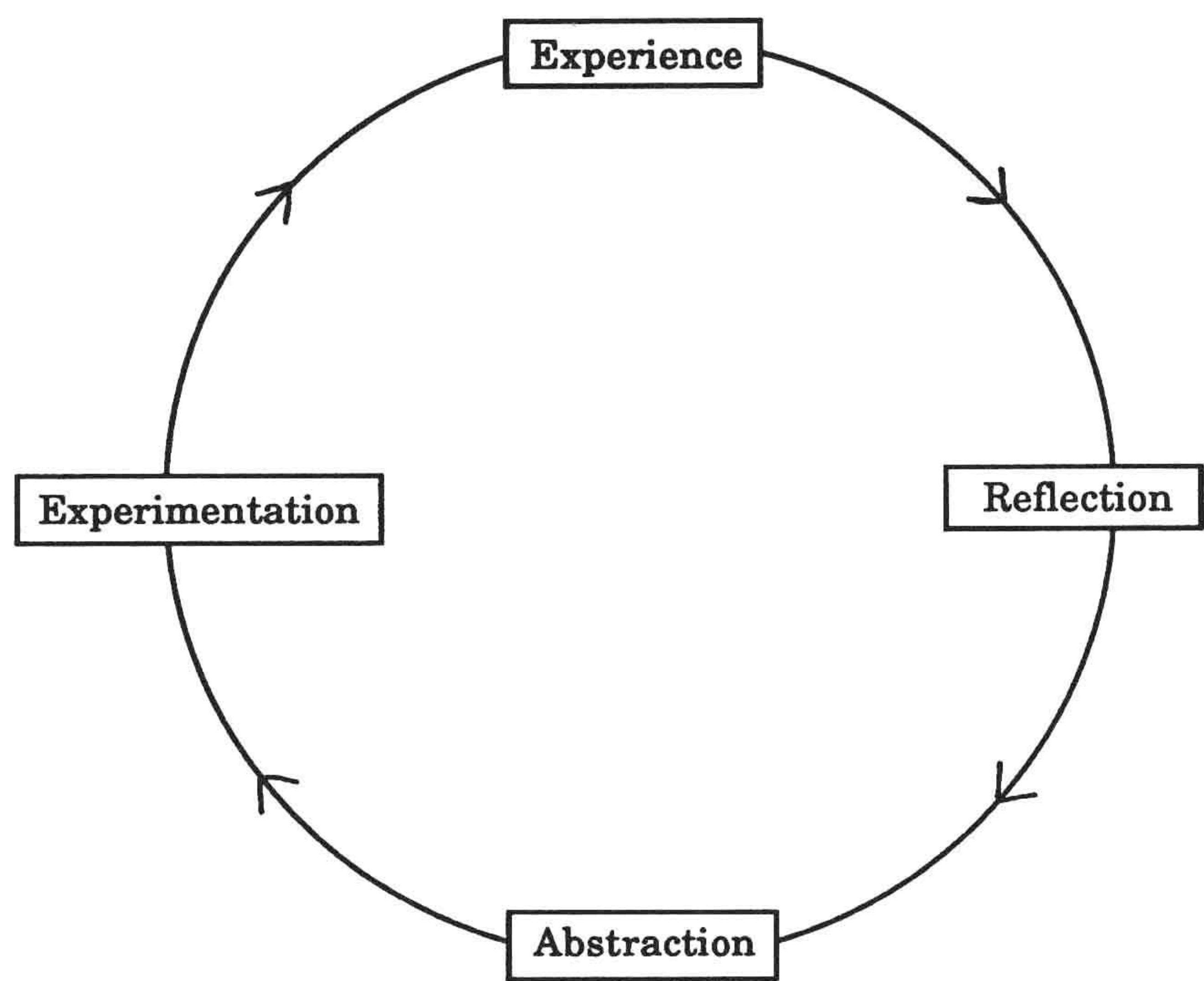
Changing Through the Use of Models

A very effective generative technique for changing teaching is the use of models to suggest alternatives. A number of models are presented in this book, any one of which can be used to stimulate your thinking on how instruction might be done differently. The use of models, however, requires a willingness to play with ideas and to order one’s thinking rather than to apply “hit or miss” or “it’s always done this way” methods of thinking about teaching.

Models are best used to suggest and order possibilities where you might not have considered them. For example, a very simple yet powerful model for instructional design is presented in Figure 1. It is based on Kolb’s (1981) experiential learning cycle, which proposes that learning moves through four phases: experience, reflection, abstraction, and experimentation. This characterization of learning is not a profoundly complex idea; it very much reflects the scientific method in general and the active learning techniques supported early on by Dewey, Lewin, and others. Its value as a heuristic for instructional design is very strong, however. If an instructor chooses one activity that leads to each of the four points on the

circle, designing novel instructional sequences or adapting new methods to the class becomes much easier. For example, we begin by having the students *experience* some concrete phenomena, such as in the laboratory. They are then asked to *reflect* in groups about what they have observed, compare it to what others have observed, or to their own past experiences; perhaps they are even asked to write a short essay describing their observations and speculating on what they have seen. Each small group is asked to come up with an explanation that *abstracts* a general principle from the observations they have made and makes a prediction about what might happen in a different situation. Finally, they return to the laboratory to test their abstraction with an *experiment*. The results of that experiment then become the experiences for the next round of learning.

Figure 1. The Experiential Learning Cycle



Source: Adapted from Kolb, 1981.

This simple model can be used to design instructional sequences for all manner of content (see Svinicki and Dixon, 1987). Its advantage is that the four phases force the instructor to think of possible ways of incorporating each phase into his or her content. What does it mean to experience in a history class, for example? You cannot experience history. Or can you? Would seeing news clips about World War II provide some observational experience? How about interviewing grandparents? Or reading original journals of pioneers? How does one reflect in a math class? Would a writing exercise in which the students tried to describe how they went about solving a problem cause them to reflect on what they did? How about comparing different problem solutions and analyzing how different students approached the same problem? Or one might have the students compare different problems that are actually different versions of the same basic process.

From these few examples, you can see that using a model such as Kolb's can spark your thinking about how you might achieve each phase of the cycle. The model also forces the instructor to think more carefully about what is actually going on in the methods currently in use. For example, in a lecture, are the students *experiencing*? Not in the sense intended by Kolb; they are not experiencing the actual phenomenon. Are they *reflecting* on their experience? Possibly, if we ask a lot of questions and give them time to think. Are they *abstracting* general principles? Well, they are not doing it, but they are observing someone else doing it so that is probably one of the functions of lectures. Are they *experimenting* with or testing those abstractions? Probably not; they have to learn them first. Actually, Svinicki and Dixon (1987) have expanded this model along another dimension, that of active participation, and accounted for even more of our traditional teaching methods.

Before you rush out to try one of the teaching methods suggested in this volume, you might want to clarify for yourself to what phase of learning each would most contribute in your class. For example, writing is probably best used as a reflection tool, forcing students to think about their observations and put those thoughts into words. However, the examination of samples of writing for analysis can serve as the basis for observation, much like laboratory experiments in the sciences. Or, if the student has been studying a particular model of writing, a writing assignment in which that model is applied would be tapping the experimentation phase. Case studies can take the students through all four phases. The case materials themselves serve as experience instances; writing up the case forces reflection; discussion of the case supports, first, reflection and then abstraction as the conclusions are reached. Cases can also be analyzed against preset models to see if the models apply in reality, and therefore through the cases students can experiment with or apply what they have learned. Collaborative learning is probably

most useful in the reflection and abstraction phases, although group work provides more opportunities and possibilities for breadth of observation of experience as well.

You can see from this example that models are a very useful source of ideas to change your teaching. The chapters in this volume offer some interesting models which can be used to order your thinking about teaching. Lucas describes several models of human behavior that are particularly valuable. For example, if we use the cognitive developmental models she discusses, we can think about what kinds of problems will be challenging to our students at different times in their academic careers, and what kinds of support students will need along the way.

Another example of a model that can guide instructional practice is the expectancy-value model Lucas discusses. By identifying the components of motivation that affect student effort, the model pinpoints areas where we can and cannot intervene. For example, we cannot change the fact that students come to our classes equipped with certain skills but lacking others, which will affect their probability of success (although, as Peters suggests, we might be able to help them develop skills appropriate to our course). However, we can manipulate our assignments to take advantage of the skills they currently have while still helping them to develop those they need. This teaching strategy will allow them some measure of control over the task of learning and increase their expectancy for success while still maintaining the challenge of learning. Because of this model we also recognize the importance of making the tasks sufficiently challenging so as to instill pride at their successful completion. Completion of a simple task, while valuable, is not nearly as satisfying as completion of a more challenging task. However, a task that is too difficult to complete lacks motivational value.

The models behind the learning orientation/grade orientation approach (LOGO) in Janzow and Eison's chapter and the Motivated Strategies for Learning Questionnaire (MSLQ) in Pintrich and Johnson's chapter are equally interesting as sources of change in teaching. The two models challenge the instructor to think about how students attack learning, what drives their performance, and consequently what can be done to improve performance. Janzow and Eison also provide a model for evaluating the instructor's attitudes and behavior and the congruence between them.

These are, of course, not the only models of significance to teaching. In fact, as instructors, we approach our task with implicit models of teaching that drive our classroom choices (Menges and Rando, 1989). Making these models explicit often helps us understand ourselves and our choices, which is the driving force behind the "reflective practitioner" movement (Schön, 1987). The consideration of new models is a way of changing our teaching in creative ways.

Changing by Inquiry

Whether we adapt the techniques of others or generate new ones by taking different perspectives and considering different models, we should adopt an attitude toward teaching that is as inquiry-oriented as the attitude we each have toward our respective disciplines. No scholar worthy of the title would be caught conducting the same experiment year after year without examining and modifying the paradigm and procedures to improve the results or extend what is learned from them. Nor would that person take pride in never having read a book or article in the field. Scholars approach their work with an attitude of questioning, an excitement of exploration, and a dedication to staying on the cutting edge of their particular disciplines. The application of that attitude of inquiry to teaching can advance our personal understanding of the process almost as rapidly as we advance our disciplines. As Angelo points out in his chapter, we should be engaged in classroom assessment of our students' learning on a daily basis, both to insure that learning is taking place and to support a questioning attitude toward teaching. We should be curious about what is happening on the other side of the desk, if not from a human interest point of view then from a scholarly one.

Where to Start

It is one thing to be curious in the abstract about teaching and quite another to put that sense of inquiry into practice on Monday. Where and how should instructors begin to change the face of their teaching? Here are some suggestions:

Start small. Do not take on the revision of the entire curriculum. Choose something over which you have some control, one assignment in one class, for example. Teachers are very busy people. If you try to do too much at once, you will never see the results of your efforts, and, as Lucas observes in her chapter here, expectations for success are an important factor in motivation.

You can select a new activity you want to try, such as writing, and see if there is a spot for it in your course as it now stands. Or you can select a class session, activity, evaluation procedure, or other method you already use and see if you can make it better with the use of classroom assessment procedures. Or you can simply take a closer look at what you are currently doing in order to understand it better with classroom assessment.

Find out what is already happening and what you have to work with and then make your class better. Take a close look at what is going on in your class right now. Who are your students? What are they doing in class? What are they taking away on a daily basis? Are they performing up to your expectations? This is the kind of classroom assessment recom-