Essays on Teaching Excellence

Toward the Best in the Academy

Volume 1, Number 5, 1989-90

A publication of The Professional & Organizational Development Network in Higher Education (www.podnetwork.org).

Teaching in Action:Criteria for Effective Practice

Ronald Smith, *Concordia University*

& Fred Schwartz, *Vanier College*

When we confront difficulties, surprises, or puzzles in our teaching we skillfully and automatically respond to the situation. Most of the time our actions are successful in producing the outcomes we desire. Increasing our effectiveness as teachers requires us to reflect on the difficult situations in our teaching when we do not achieve our intentions. It is from these situations that we may have the most to learn.

Donald Schon in *The Reflective Practitioner: How Professionals Think in Action* celebrates the knowledge that is implicit in the competent action of professionals. Professionals are constantly making judgments and decisions but cannot state the rules or theories upon which they are based. Schon describes this practical knowledge as "knowing-in-action." Professionals come to know in action through a process Schon calls "reflection-in-action," where their thinking in the midst of action reshapes what they do while they are doing it. Expert practice is more than the application of theories, more than what Schon calls "technical rationality." Practice is characterized by indeterminate situations of ambiguity, uncertainty, uniqueness, and values conflict which must be transformed into determinate ones that the professional knows how to solve. That transformation is not a technical task. Schon argues that technical

rationality and its conception of practice does not adequately describe the form of professional knowledge that distinguishes between the adequate and the excellent practitioner; it does not account for professional "artistry."

Professors know how to teach. Their knowledge is evident in their actions as they teach. "Reflection in action" describes how professionals think and act in the complex and ambiguous situations in their practice. When their usual skilled responses don't work, they impose new meanings on the situation in order to make sense of their difficulties. These meanings become the "frames" within which they act. These frames determine what they attend to and what they ignore; where they focus their attention and what they accept as movement towards a more satisfactory situation. Professionals take action and evaluate the success of their actions in terms of how they have framed the problem or puzzle. Schon call these actions "moves" or "experiments." Each experiment is assessed in terms of the degree to which it has improved the situation, led to the discovery of new meanings, or changed the nature of the questions to be explored. Experimenting in the world of practice continues until the problematic situation which initiated the experiments is resolved.

Reflection-in-action Consider the following situation. A student S comes to your office and says, "I'm having difficulties in your course." As S explains the difficulties, you formulate a hypothesis about the nature of S's problem. You look at S's work and ask questions to gather information to confirm or disconfirm your hunches, then decide that S can't do this work because S doesn't understand the new technique you explained yesterday. You re-explain it, give S another problem, watch S do it, and then discover that S still can't do it. In watching S work you see other behaviors that make you think that there is another gap in S's background, which you take steps to remedy by more teaching on the spot, and then assign extra readings and problems.

S comes back to you a week later and as you watch S try to solve another problem you see that S still can't do it. You ask to see the extra work you had asked S to do. When S hasn't done it, you begin to think that S is not trying hard enough. You decide to apply some pressure in the form of a reprimand for S not keeping up S's end of

the deal by doing what you told S would be helpful. S looks hurt by your statements and says," I wanted to do it. But my boss at the place where I work part-time to earn the extra money to pay for school was short-handed and demanded that I work some extra hours. I was worried that if I didn't put in the extra time I would lose this job and not be able to go to school at all." Your view changes from one of censure to one of admiration for the extraordinary effort S is making. You offer suggestions, a scholarship program, a free tutoring program offered by the senior students in the department; and, on the basis of her responses, arrange an appointment for S with the appropriate person. And it continues.

FRAMES	MOVES	TALKBACK
S misunderstands key idea	You reteach and test	S can't do it
S is missing some basics	You reteach and assign extra work	S can't do it and hasn't done extra work
S is not trying hard enough	You reprimand S	S appears hurt and offers more information
S is overloaded	You offer ideas for money problem and learning	

Analysis The artistry of this professor is in reflecting-in-action as Schon describes it, framing the situation, making moves, listening to the talk back, refraining, and making new moves, a process which continues until the problematic situation is resolved.

Usually our actions produce the outcomes we desire. When they do not we continue to experiment until the problem is resolved. Occasionally we encounter a particularly difficult situation where, even after it is over, we remain unhappy with the way it turned out.

Reflecting on how we were reasoning and acting in those situations, when we were at the fringe of our competence, provides a unique and potentially rich opportunity for learning which will improve our practice.

Reflection in action and reflection on our actions are forms of practice which require that we diagnose the problem, invent a solution, produce that solution and evaluate its effectiveness. Effective practice solves problems so they stay solved and the teacher-student relationships is not harmed. This requires that we behave with our students in ways which create a climate where (1) we are likely to generate valid information appropriate to solving the problem, (2) we are informed of all the relevant and appropriate information and feel free to make choices, and (3) as a result we are internally committed to monitoring the outcomes of our actions.

Productive reflection In order for our reflection to be productive and for our practice to be effective, we must reason and act in ways which are consistent with what Argyris (1985) calls productive reasoning; that is, we must (1) use "hard" data (that is, easily accepted as valid descriptions of reality by individuals with contradictory views), (2) make premises explicit, (3) make inferences explicit, and (4) publicly subject conclusions to tests of disconfirmation.

These criteria are commonly accepted as the canons of scientific thinking in all disciplines, each one encoding them in their own methodologies. They define what we mean by rigor and there is almost no questioning their appropriateness. In spite of the earlier discussion of reflection-on-action, we are proposing that these criteria also apply to the artistry of reflection-in-action and reflection-on-action, particularly in the interpersonal area.

In reflecting on the difficult situations in your teaching practice and in examining how you were reflecting in action, consider the extent to which your experimenting and problem solving were consistent with the rigor of productive reasoning. We suggest you ask yourself the following questions:

- **Did I illustrate and test my evaluations?** If we do not make

explicit and test our observations and reasoning, yet act as if we are correct, we are not likely to discover when we are incorrect. In our example the professor evaluated the student as not understanding the key idea, missing the basics, and unable to do the problem. Did the professor say, "I believe you can't do this problem because you don't understand the concept I taught yesterday. Do you agree?" or "I think you are having trouble with yesterday's concepts because you are missing these basic ideas... What do you think?"

- **Did I illustrate and test my attributions?** The professor in our example attributed to the student "not trying hard enough" to explain her lack of success and acted as if that were true by reprimanding her. the professor might have said, "I see that you haven't done the extra work assigned to makeup for missing background. I'm beginning to think you are not willing to put in the effort required, and you're not trying hard enough. I would like to get your reactions to my interpretation."
- **Did I advocate my position and invite inquiry?** Did the professor say, "I think you should do this extra work to make up for your weak background. Do you think that would work?" or "I think you should find some other sources of money besides part-time work. Do you agree?" Keeping the inquiry going is likely to generate better information and to lead individuals to be more committed to the choices they make.
- **Did I withhold information?** In order not to hurt another person's feelings, to prevent them from getting defensive, or because they care for them, people often withhold their negative attributions and judgements. As a result, important information, relevant and necessary for effective problem solving, is not discussed and errors in interpretation are not detected and corrected.

Consequences

If you do not illustrate, inquire into, and test your attributions and evaluations, you may be wrong and you are not likely to find out. You will generate mistrust and misunderstanding with students. They may feel that they are being unfairly judged, that you have already

made up your mind, and that you are trying to control them unilaterally. They are likely to resent this and act out their resistance in ways which are not productive, either by withdrawing or becoming aggressive. The most essential tool for effective problem solving and learning, the generation of valid information, is lost.

Conclusions

Improving our effectiveness as teachers requires that we reflect on our practice, particularly in those situations where we think we have been least effective. To the extent that we are able to act and to reflect on our action in ways which are consistent with productive reasoning we will be able to generate the valid information necessary for effective problem solving. Without this we may be solving the wrong problem or making the situation worse. If you would like to read more about the approach suggested here, we recommend the following sources:

Argyris, C. (1985). *Strategy, change and defensive routines*. Boston: Pitman.

Argyris, C., Putnam, R., & Smith, D.,(1985). *Action science*. San Francisco: Jossey-Bass.

Schon, D.,(1987) *Educating the reflective practitioner*. San Francisco: Jossey-Bass.

Smith, R. A. & Schwartz, F.,(1988). Improving teaching by reflecting on practice. In J. Kurfiss et al.(eds) *To improve the academy*, Vol.7(63-84) POD/New Forums Press.