

## REFLECTION, THE HEART OF CLINICAL SUPERVISION: A MODERN RATIONALE FOR PROFESSIONAL PRACTICE

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Historically, clinical supervision is inextricably connected to the issue of the professional status of educators. In the early '50s when Morris Cogan, the mentor of clinical supervision, wrestled with a better way of working with teachers, he was really searching for a better definition of what it meant to work professionally as a teacher. His primary concern was to improve the status of teachers and along with it the obligation of supervisors for helping them toward that professional identity. The same theme held for supervisors, who, Cogan believed, must develop competence and understanding in their own practice. For Cogan, supervision was not a side function of administrators, but rather a full-time responsibility. Indicative of his stance on this matter was his early article in the *Harvard Educational Review* in which he said, "A profession is a vocation whose practice is founded upon an understanding of the theoretical structure of some department of learning or science . . ."<sup>1</sup>

Since then practitioners, full-time researchers, students, and the general public have experienced drastic changes. The Kuhnian revolution has touched more than the scientific community. By way of example, popular journalism today abounds with messages from those who attempt to come to grips with the changing state of human affairs. Flora Lewis, in a recent *New York Times Magazine* article, "The Quantum Mechanics of Politics," describes the earlier stage as a time when there was a certain unity of outlook in the humanities and in natural science:

Science, until recently, offered us a model of certainty. As science advanced, the humane and the physical view of the world appeared synchronized. Knowledge appeared perfectible. To know was to be able to do. Armed with the assurance that linked correct observations with power, Western societies were able to move out and dominate the globe. Since irrefutable knowledge was always expanding, progress based on right thinking was inevitable. Or so it seemed.<sup>2</sup>

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<sup>1</sup>Morris Cogan, "Toward a Definition of Profession," *Harvard Educational Review* 23 (Winter 1953): 48-49.

<sup>2</sup>Flora Lewis, "The Quantum Mechanics of Politics," *New York Times Magazine* 6 (November 1983): 98

Quantum mechanics has become a metaphor to remind us that a model of certainty does not exist. In Lewis's words,

... the way the world really works is that the world is a mass of uncertainties piling up into likelihoods. ... We nonscientists still think we know what we are doing and look to science for confirmation, even as science ... tells us that the point we should keep in mind is we don't know and can't know.<sup>3</sup>

Educators need a modern rationale for their practice—one based on problematics and the dual assumptions of uncertainty and deliberation as a basis for action. Under these conditions, each professional must accept the responsibility for shaping his or her own rationale through self-understanding and inquiry—a rationale that makes sense within everyday events and contributes to the professional community one represents. This is the underlying theme of this paper.

The following sections present my outline of a modern rationale for educational practice which links clinical supervision and knowledge-generation to the professional orientation of educators. I do not provide a comprehensive review of literature, but rather mention representative works to exemplify some of the key ideas that seem important. Since a rationale is a reasoned exposition of assumptions, concepts, and principles, there is, at times, a tedious attempt to provide useful definitions, and contrast existing schools of thought, with only a brief explication of critical assumptions. However, an overview such as this is a way of bringing together several areas of study to show the connections. (It is heartening to see how the pieces fit.) A more expansive document will have to wait.

The first sections trace the roots of clinical supervision as grounded in the hope for achieving professional status for teachers. Professionals are described as part of the community of scholars who are responsible for knowledge generating and for understanding their own knowledge base. Subsequent sections explicate a *professional knowledge base*, including as subsets, the *sources of knowledge*, the *purposes of knowledge*, and the *approaches to knowledge*. *Reflection* is posited as a primary process of inquiry within the teacher's practice; *reflection on action* and *reflection through recollection* are two procedures described. Reflection is regarded here as being at the heart of clinical supervision. The final section includes some procedural examples, suggestive of the ways in which supervisor and teacher might work together. In addition, a framework (or construal) is presented which is meant to provide a way for supervisor and teacher to talk about and plan for changes in teaching.

#### HISTORICAL BACKGROUND: PROFESSIONAL AND CLINICAL SUPERVISION

When he was a high school English teacher from Trenton, New Jersey, Morris Cogan continually pondered the question of the professional status of

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<sup>3</sup>ibid., pp. 98–99.

educators. In the mid-1950s, as a lecturer at Harvard supervising pre-service teachers in a special Masters of Arts in Teaching degree program, Cogan was nagged by the question, "Why haven't educators moved their trade into the realm of a fully recognized profession?" At that time there was much discussion among scholars comparing medicine (considered to be a fully advanced profession) and education (a "pre-profession" which had not yet achieved a professional status). In the 1950s, teaching was construed as a *folklore practice* similar in many respects to the physician's work in the early 1900s. Conventional wisdom was accepted as the legitimate route to knowledge. The craft-like nature of teaching best characterized the way teachers learned their work and continued to practice.

Recognizing that the practitioner carries a subliminal world of shadowy figures which inhabit his or her mythology, the craft of teaching could be described as follows: for a brief period of time one is matriculated into teacher education, exposed to a disciplined subject matter and some courses in methods of teaching. A supervised internship, or practice teaching, often resembles the early grade apprenticeships during which the master teacher passes on to the apprentice teacher the skills acquired through trial and error in the years of teaching. Conventional wisdom is accumulated—that which "works" is continued, that which "doesn't work" is discarded. One becomes a first-year teacher, certified to practice, and often despairs that the teacher education program did not prepare one for the awesome tasks of the real world. Experienced teachers continue to report that they get most of their classroom activities by finding out what works for them and sharing it with other teachers (who may in turn decide it doesn't work for them). The craft, a folklore practice, therefore includes the role models, stereotypes, and archetypes which a teacher associates with his or her role, and the actions, both explicit and hidden, that one takes on when performing the role. It refers to the way in which the teacher continues to acquire skills and beliefs during the muddling-through phase, when trial and error is probably the major mode of learning; in addition, it is the dissemination of the skills and beliefs through conventional wisdom and peer contention that "what works for me will work for you."

At this point in time Morris Cogan would probably not have publicly acknowledged the idea of folklore practice as vividly as it is presented here. He would have considered the description somewhat disrespectful to the teaching establishment. His own deep respect for teachers, and his personal identification with the heritage of teaching, caused him to always identify with teachers as his colleagues. In his later writing he used the term "collegial relationship" to refer to the alliance between supervisor and teacher (at a time when "collegial" did not appear in modern dictionaries for spelling verification). He assumed that teachers should be treated as if they were professional, and indeed his work reflected his efforts toward achieving that goal.

At Harvard, Cogan reviewed writings that dealt with the definition of "profession," and it was this that provided the basis for his later work in supervision. He published "Toward a Definition of Profession" in 1953, which described various popular meanings of the term (i.e., professional vs. amateur, as in sports) and pulled together the recurring ideas about profession represented in the scholarly literature at that time.<sup>4</sup> His synthesis of what it meant to be a professional included the following criteria: (1) full-time occupation, (2) a specialized body of knowledge in which practitioners participate as a part of the community of scholars responsible for contributions to that knowledge, (3) a service orientation toward clients, (4) educational preparation and standards, and (5) a professional association which sets entry criteria and monitors the quality of service rendered. Cogan admired the medical profession, looking to it as a prototype for understanding how to describe a professional charge to its members. He was particularly impressed with the rapid development of the role of the medical practitioner in 50 short years. From being primarily folk healers in 1900, physicians had become by 1950 highly trained surgeons, not only respected for the possession of scientific skills and knowledge but in charge of their own professional destiny. Cogan wanted the same conditions for teachers.

One aspect that disappointed Cogan was the place of teacher education in the professional lives of teachers. As a teacher educator himself he did not condemn the quality of the pre-service experience, but realized that the formal education teachers received in professional skills had only marginal influence on practice. He later acknowledged that teacher education was a minor appendage, loosely attached to the larger body of folklore teachers acquire and develop over time and continue to perpetuate in the real world of classrooms.

His boundless hope for education to develop as a fully developed profession, and his acknowledgment of the limitations of teacher education programs, formed the basis upon which Cogan fashioned his work in supervision. In the late '50s Cogan and his contemporaries at Harvard spent their time living with intern teachers, master teachers, and supervisors at Lexington High School and Cambridge High School. Their work involved them in developing intense involvements that resulted in insights into the importance of the role of supervisor. Cogan named the supervisory practice "clinical supervision" because it resembled the close alliances in the medical profession. The "clinic of the classroom" was a way of describing the activities where supervisor and teacher work together *every* day for a prolonged period of time (a practice not generally done in other forms of supervision). Cogan also liked the term "clinical" because it had an element of realism associated with it, as well as referring to someone who is trained to observe and analyze events in an

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<sup>4</sup>Morris Cogan, "Toward a Definition of Profession," *Harvard Educational Review* 23 (Winter 1953): 33-50.

empirical fashion, and to formulate tentative hypotheses (an adaption of the general scientific method). For Cogan, the scientific method of that period provided a framework within which supervisors and teachers could study classroom events together.

Yet clinical supervision also meant much more to Cogan than just method. In his book<sup>5</sup> he emphasized that the phases or cycle of supervision were really the beginnings of a conceptual rationale—a series of concepts and subconcepts from which educators could guide their actions toward professional development for both the supervisor and the teacher. In his book Cogan focuses on the supervisor's practice and skill in working collaboratively with teachers, yet within a framework that permitted and encouraged a professional approach to clinical supervision. His early preoccupation with profession was well exemplified in his writing and teaching. In the 1975 NSSE Yearbook, Cogan again addressed the issue of the questionable professional status for educators. He was disturbed by the conditions of the past which placed teachers in an occupation with low prestige and called attention to the consequences of this negative public esteem. He wrote,

Independence of thought and freedom of action in the teaching situation is lower for those without esteem. Where prestige of teaching is low, the teacher lacks the influence or authority which . . . is essential to the success of the teaching-learning process.<sup>6</sup>

Furthermore, the esteem in which the general public holds teachers and schooling has a profound effect upon what teachers learn during their professional education, how they teach in school, and especially upon what their students learn. His message in the article was clear. "This influence is so pervasive and so damaging to their teaching that both preservice and inservice education should prepare teachers to withstand and combat it."<sup>7</sup>

About inservice, Cogan wrote:

The established professions require the practitioner to continue his education throughout his entire professional life. The rationale for this requirement derives from the need to help the doctor, lawyer, or engineer to gain the new knowledge and competencies he must master if he is to avoid lapsing into rapid professional obsolescence. A similar requirement binds teachers into programs of inservice education. But for teachers, these programs must in addition remedy the severe insufficiency of preservice education . . .

The tasks of helping teachers to improve their professional competencies must be continued on the job, that is, through an in-service program that welds theory, research and practice continually and incrementally rather than episodically. We must therefore construct new models that will transfuse meaning and life into programs of in-service education.<sup>8</sup>

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<sup>5</sup>Morris Cogan, *Clinical Supervision* (Boston: Houghton Mifflin, 1973).

<sup>6</sup>Morris Cogan, "Current Issues in the Education of Teachers," in *Teacher Education, The 74th Yearbook of the National Society for the Study of Education, Part II*, ed. Kevin Ryan (Chicago: University of Chicago Press, 1975), p. 205.

<sup>7</sup>Ibid., p. 204.

<sup>8</sup>Ibid., pp. 213–215.

Cogan believed that teachers should have at their disposal the skills of someone capable of working with them in a continuing way to understand classroom events. Accordingly, he argued that "only a clinical supervisor who spends much of his working life in classrooms observing teachers"<sup>9</sup> can provide the dedication, understanding, and knowledge base for addressing certain inservice concerns.

There was one inconsistency, however, in Cogan's writing. His earlier work on professions noted that one of the criteria for an established profession presumes *a specialized body of knowledge for which practitioners, as a part of the community of scholars, are responsible for continual contributions*. Yet in his 1975 article he stated, "We do not propose that school teachers should be researchers."<sup>10</sup> In his view, teachers should be consumers of research knowledge but not responsible for knowledge generating. In the early '70s, at the time Cogan was writing, the dichotomy between theory and practice seemed clear enough. Like other scholars, Cogan still had faith in the idea that the education establishment would gain from the effects of full-time researchers engaged in positivistic inquiry into teaching and learning. There was widespread acceptance of the view that the best results from research would likely benefit the professional development of practitioners. Teachers and students became objects of research. The behavioral scientists dominated the direction, design, and implementation of the inquiries through rigid experimental and statistical analogues. They hoped to acquire knowledge about optimum methods for teaching, yet the reality was that teachers themselves ignored the complicated and often trivial mathematical results. It is not surprising that today this effort is viewed pessimistically.

Cogan's short-sighted view of teachers as researchers was understandable in the context of his time. Research in the social sciences generally was dominated by the positivistic orientation to knowledge and knowledge production. By the time Cogan retired in 1979 he had begun to think of clinical supervision as a useful practice for mature teachers who could collaboratively bring their considerable experience and thoughtful speculation to bear on their own professional development.

#### PROFESSIONALS AS MEMBERS OF A COMMUNITY OF SCHOLARS

Several contemporary writers have proposed that processes like clinical supervision could help to bring classroom teachers into the community of educational scholars. The titles of a number of recent papers give a sense of the messages. "There's Got to Be a Better Way,"<sup>11</sup> "Examining Closely What

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<sup>9</sup>Ibid., p. 218.

<sup>10</sup>Ibid.

<sup>11</sup>W. John Smyth, "There's Got to Be a Better Way!" *Canadian School Executive* 3, 2 (1983): 2-5.

We Do,"<sup>12</sup> "How to Be Your Own Best Theorist,"<sup>13</sup> "Teachers-as-Collaborators in Clinical Supervision: Co-operative Learning About Teaching,"<sup>14</sup> "Colleague Consultation: Supervision Augmented,"<sup>15</sup> to mention a few.

A body of case-study research has built up over the past five years which contributes to the literature of clinical supervision as collaborative involvement in professional development.<sup>16</sup> Even the prestigious American research and development (R & D) centers now support a "collaborative research" orientation, which often means that full-time researchers and teachers are teaming, in an effort to pursue educational inquiry together in schools. There has been a marked change in the way educators/researchers view knowledge production and, in particular, the ways in which knowledge is redefined. This change has had a sweeping effect in both research and scholarship in the last decade.

It may be important to consider a context within which to think about knowledge and the scholarly discourse regarding knowledge claims. Established scholarly communities in both natural sciences and social sciences have loosely associated themselves in a field of study known as philosophy of science. Scholars in the philosophy of science have engaged in debate since the 1930s regarding the legitimacy of truth claims. More recently the nature of the debates from the famous Vienna Circle and Berlin group (1930s to '60s) is being revisited in order to understand the fundamental assumptions about the rules of research and what constitutes legitimate knowledge. In 1962, Thomas Kuhn's *The Structure of Scientific Revolutions* represented the changing direction of the debate over knowledge claims in science, and, more importantly, forced scholars to reexamine their basic definitions about science and the nature of knowledge.<sup>17</sup>

A fundamental question within the empirical orientation of logical positivism asked, "How can we know whether it is true or false?" The issue of

<sup>12</sup>Herbert Kohl, "Examining Closely What We Do," *Learning Magazine for Creative Teaching* 12 (August 1983): 28-30.

<sup>13</sup>David E. Hunt, "How to Be Your Own Best Theorist," *Theory into Practice* 19 (Autumn 1980): 287-293.

<sup>14</sup>W. John Smyth, "Teachers-as-Collaborators in Clinical Supervision: Cooperative Learning About Teaching," *Teacher Education* 24 (April 1984): 60-68.

<sup>15</sup>Lee Goldsberry, "Colleague Consultation: Supervision Augmented," in *Critical Issues in Educational Policy: An Administrator's Overview*, ed. Louis Rubin (Boston: Allyn and Bacon, 1980), pp. 334-344.

<sup>16</sup>Murray McCombe, "Clinical Supervision from the Inside," in *Case Studies in Clinical Supervision*, ed. W. John Smyth (Geelong, Victoria: Deakin University, 1984), pp. 43-56; Brent Kilbourn, "A Case Study in Clinical Supervision," *Canadian Journal of Education* 7, 3 (1982): 1-24; W. John Smyth and Collin Henry, "Case Study Experience of a Collaborative and Responsive Form of Professional Development for Teachers" (paper presented at the Annual Meeting of the Australian Association for Research in Education, Canberra, November 1983); and Jeffrey Robinson, "A Second Pair of Eyes: A Case Study of a Supervisor's View of Clinical Supervision" in *Case Studies in Clinical Supervision*, ed. W. John Smyth (Geelong, Victoria: Deakin University, 1984).

<sup>17</sup>Thomas Kuhn, *The Structure of Scientific Revolutions* (Chicago: University of Chicago Press, 1962).

verifiability was central to the debate until the '60s; then issues of knowledge use also became important, with questions like, "What does knowing mean?" and "How can knowledge claims be classified?" Lindblom and Cohen published an important work entitled *Usable Knowledge: Social Science and Social Problem-Solving*, in which their often quoted line that "knowledge is knowledge to anyone who takes it as a basis for some commitment or action" has become something of a dictum.<sup>18</sup> From this pragmatic orientation, other fields of study are emerging (sometimes through informal, multidisciplinary groups including philosophy of science) focused on the study of knowledge use.<sup>19</sup> Education scholars have responded to this paradigm shift, and the nature of current debates is encouraging.<sup>20</sup> For practitioners this means that they are no longer stifled by the narrow concern with only *scientific knowledge* and a single paradigm for verifying its truth or otherwise. We are able to focus on the notion of *professional knowledge*, and make the distinction between theorizing in education and theory building and testing in the conventional sciences. Educational theorizing seeks to understand and depict meaningful human action for the purpose of guiding practice: theory building in conventional sciences is the search for laws and axioms to explain and predict natural phenomena. This distinction has had a profound influence on research in education.

One aspect relating to the legitimacy of research efforts that is widely accepted is the concept of a "community of scholars." This means that there is an elusive, subtle alliance among members of groups with academic and professional ties who are bound by past traditions as well as methods of reasoning. Although these groups may espouse and debate different philosophical and logical points of view, there is a common bond which obligates them to acknowledge the fact that legitimate research is a matter of confirmation by those in the field. If scholarship is not a private affair then teachers and other practitioners are important members of the educational community of scholars.

#### A PROFESSIONAL KNOWLEDGE BASE

For the professional, understanding one's own version of the term "knowledge" might appear tediously irrelevant. We realize, after all, that

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<sup>18</sup>Charles E. Lindblom and David K. Cohen, *Usable Knowledge: Social Science and Social Problem Solving* (New Haven, Conn.: Yale University Press, 1979), p. 12

<sup>19</sup>At the University of Pittsburgh, scholars in the social sciences, policy studies, international education, and philosophy of science have formed a Center for the Study of Knowledge Use. (William Dunn is the director.) The journal *Knowledge* has been a result of their efforts, as well as several books and papers.

<sup>20</sup>The debate between Denis C. Phillips and Elliot W. Eisner is a recent example. See Denis C. Phillips, "After the Wake: Postpositivistic Educational Thought," *Educational Researcher* 12 (May 1983): 4-12; and Elliot W. Eisner, "Anastasia Might Still Be Alive, But the Monarchy is Dead," *Educational Researcher* 12 (May 1983): 13-14, 23-24

knowledge is somehow related to learning and the raw material of all educative events. Yet the possibility of grappling with the term itself seems so awesome, presumptuous, or unnecessary that we often avoid the issue entirely. However, we are beginning to pay attention to the significance of sorting out our own versions of important, taken-for-granted constructs in order to differentiate and thereby broaden our frames of reference. In the case of the term "knowledge," we are probably able to recognize the common version we tend to believe, that is, knowledge as information to be dispensed in some tangible form. My intent here is not to replace that idea or to provide a comprehensive discussion from current writers about the definition of knowledge. Rather, the purpose of this section is to present a frame of reference in order to sort out (classify) ideas related to reflection on action and to suggest examples of possible techniques for action. In other words, the presentation here construes knowledge as *knowing and acting* (often the term "praxis" is used to call attention to the conscious, deliberate, dynamic aspect of knowledge). If we broaden our understanding to include knowledge as the well-spring out of which human beings act, this can have important implications for educational practice. The following discussion is offered as an example of the way in which one might sort out a frame of reference in order to develop practical techniques and activities. Most important, however, the practitioner is encouraged to understand his or her own frames of reference through theorizing (understanding and depicting meaningful human action for the purpose of guiding practice) in the context of practice. A *professional knowledge base* for the educator can include a keener insight into the *sources of one's knowledge, the purposes of knowledge, and the approaches to knowledge.*

### *Three Major Sources of the Practitioner's Knowledge*

It is useful to think in terms of three major sources of personal knowledge: (1) mythic knowledge, (2) craft knowledge, and (3) inquiry knowledge. *Mythic knowledge* assumes that as a person decides to become a professional, the role takes on a rich historic and mythic image. For example, we do not learn about teaching in a neutral setting, there are often emotionally charged memories, both pleasurable and painful, stored in the realm of our educational myth. Educational myth is defined here as "an emotional and symbolic expression through language and ritual revealing sacred beliefs about the educational experience, subconscious in nature and often evoked for the purpose of prescribing thought and action about educational practice."<sup>21</sup> Contrary to the popular usage of the term "myth" as ideas that are imaginary and have no verifiable existence, I have argued elsewhere that there may be dysfunctional

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<sup>21</sup>Noreen B. Garman, "The Study of Educational Myth in the Practice of Clinical Supervision" (paper presented at the Annual Meeting of the American Educational Research Association, Montreal, 1983), p. 6

stereotypes and rituals which derive their power from the myth source. The challenge for the educator is to find ways to understand and act without denying myth as a symbolic approximate expression of knowledge (something that is believed to be true). Furthermore, the "sacred" qualities of myth help us understand that there may be parts of our mythic knowledge which tap deeply into embedded memories of parents and schooling.

Teaching is the most venerable practice we have universally experienced. Beyond our experiential worlds we harbor mysterious remnants of mythic teachers (Plato, Socrates, Jesus, Buddha). There are aspects of teaching which can be thought of as consecrated—made hallow by the ancient belief that teaching embodies devotion to service. Those who serve are reverently dedicated to their charge, and are themselves to be regarded with reverence. The sacredness presumes that certain parts of teaching are derived from mythic revelation, which bestow some rights that are unquestionable and provide immunity from interference. In each one of us, the sacred part is exempt from criticism. Mythic knowledge is perhaps the most permeating and influential basis for our action.

*Craft knowledge*, described earlier in this paper, derives much from the mythic source and is characterized by a more or less conscious way of trial and error learning. McNeil calls this ordinary knowledge, that is "common sense, empiricism, and thoughtful speculation"<sup>22</sup> A primary source of craft knowledge comes from thinking and doing teaching and then characterizing this as activities and methods—often referred to as the "cookbook approach." The difficulty here is that craft knowledge lacks a conscious rationale necessary for going beyond "the method." Keen intuition, a subliminal intellect of sorts, can keep good teachers doing successful lessons without a clearly articulated rationale. Still, at its finest, the art and craft of teaching is an important way to represent a source of knowledge for practice.

Eisner describes, in eloquent fashion, the art and craft of teaching and reminds us that we have accepted the images of technology as a way to think and talk about teaching.<sup>23</sup> By accepting the scientific as the dominant language of teaching we have limited our inquiry to narrow terminology from which to provide rational pictures of the practice of teaching. Teachers have continued to remind researchers that research language is impoverished because it neglects or fragments some of the most critical aspects of teaching, such as the *vitality* of the events, *faith* on the part of class members that something useful will happen, the *trust* and *caring* of participants, the presence of *humor*

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<sup>22</sup>John D. McNeil, "A Scientific Approach to Supervision," in *Supervision of Teaching*, ed. Thomas J. Sergiovanni (Alexandria, Va.: Association for Supervision and Curriculum Development, 1982), p. 31.

<sup>23</sup>Elliot Eisner, "An Artistic Approach to Supervision," in *Supervision of Teaching*, ed. Thomas J. Sergiovanni (Alexandria, Va.: Association for Supervision and Curriculum Development, 1982), pp. 53–66; Elliot Eisner, "Anastasia Might Be Alive, But the Monarchy is Dead," *Educational Researcher* 12 (May 1983): 13–14, 23–24.

and *imagination*, and the predisposition toward *success* instead of survival. These aspects of teaching enrich the spirit and open the mind to the more tedious tasks of academic work. We may not be able to measure the illusive qualities—nor should we trivialize their importance.

Full-time researchers, on the other hand, have called attention to the consequences of the unexamined aspects of craft practice. By working at a trial-and-error level of operation, teachers are often unaware of the fuzzy, disconnected ways they organize and conduct academic tasks for students. Still, the nature of academic work remains enigmatic. A useful language for representing the forms of teaching related to typical academic tasks from a student's perspective, which can in turn influence practice, is not available.

Encouraging research by Doyle has presumed a need to understand more fully the intrinsic character of academic work and how that work is experienced by students in classrooms.<sup>24</sup> His studies are directed toward how academic work is carried out, and he pays particular attention to the ways in which the social and evaluative conditions in classrooms affect students' reaction to the work. Writings such as Doyle's need an audience of mature professional stature to translate the language into practical forms.

Within the idea of a professional knowledge base it is assumed that the professional has deliberate ways of grappling with the influence of mythic knowledge and craft knowledge on his or her action. The mature professional eventually develops inquiry as a major source of professional action.

*Inquiry knowledge* results from the "search" aspect of research and is meaningful so long as there is a direct connection to personal reality. Inquiry refers to knowledge generating, and the results are provisional and tenuous, posited in light of new experience and insight. For the adult inquirer a certain process has to be set in motion, a process that involves reliving vicariously what once was originally lived through. It is this uncovering of taken-for-granted thought and action that amounts to a form of demythologizing. Without this we are forced to accept the verities of our mythic and craft sources in the guise of inquiry knowledge.

Professional inquiry suggests an essentially different mode of reasoning: for example, discovery, verification, explanation, interpretation, and evaluation.<sup>25</sup> Each mode is derived from different ways of knowing—different paradigms—for responding to worthwhile questions rising out of conscious life in concrete situations. Gradually the mature professional develops the capacity for articulating rationale, for interpreting what is happening, and for constru-

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<sup>24</sup>Walter Doyle, "Academic Work," *Review of Educational Research* 53 (Summer 1983): 159-199

<sup>25</sup>Noreen B Garman, "The Clinical Approach to Supervision," in *Supervision of Teaching*, ed Thomas J Sergiovanni (Alexandria, Va.: Association for Supervision and Curriculum Development, 1982), pp 35-52.

ing the meaning in a communicative form. It is these educational construals<sup>26</sup> that constitute a useful basis for future practice.

Greene captures the richness and the complexity of the process by paraphrasing Merleau-Ponty in the following:

[There is] the realization that one can reach beyond what is immediate, make horizons explicit, and transcend what is first a field of presences towards other future fields. What were once perplexing shapes and fragments on the fringes of the perceptual field are thematized, transmuted into symbolic forms. Naming occurs; interpretations occur; meanings are built up; intersubjective relations entered into; gradually the embodied consciousness constitutes a world.<sup>27</sup>

Inquiry knowledge is the continual rendering of our conscious experiences into forms for past and present understandings and future use. It is self-understanding for the professional community we all share.

### *Purposes of Knowledge*

When the educator asks, "What are the sources of my professional knowledge?", this is quite a different type of question from asking, "What is the purpose of knowledge?" Intentionality is at issue in the second question. Personal motives, collective objectives, and institutional missions all surface and are examined here. We are obliged to consider what we mean by "behavioral change," "intervention," "delivery of service," "technical application," "practical decision making" or "personal empowerment" in light of professional knowledge generation (or praxis). In *Empowerment vs Delivery of Services*, Fried contrasts these two purposes by tracing the consequences of delivery of service through the last two decades.<sup>28</sup> Viewed by many in the helping professions as indicative of our professional humaneness, Fried warns that the delivery of service mentality may also perpetuate a system which condemns a population to be passive recipients of services. Empowerment, on the other hand, means helping people to take charge of their lives, inspiring people to develop feelings of self-worth and a willingness to be self-critical and reflective about their actions. Moreover, personal empowerment is the essential ingredient for a professional orientation. Without a feeling of respon-

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<sup>26</sup>The educational construal, a product of conceptual inquiry, construing (or picturing) a complex, often incomprehensible entity in a manageable form in order to talk about and carry out educational practice. It is a useful educational device. A conceptual framework is a common educational construal; one popular example is Benjamin Bloom, ed., *Taxonomy of Educational Objectives* (New York: Longman, 1956). Bloom has "construed" the cognitive domain as having six differentiated classes. From the physiological and psychological perspective one might say that the cognitive domain is considerably more complex than six categories. Bloom's *Taxonomy*, as the title suggests, is organized for the purpose of writing educational objectives, not for the purpose of explaining or predicting how people learn generally.

<sup>27</sup>Maxine Greene, *Landscapes of Learning* (New York: Teachers College Press, 1978), p. 103.

<sup>28</sup>Robby Fried, *Empowerment vs Delivery of Services* (Concord: New Hampshire State Department of Education, 1980).

sibility for the profession and the sense of importance of empowerment, the educator becomes a kind of civil servant in the larger community.

A number of recent writings have reflected a critical theory orientation as related to the purposes of praxis. Mezirow draws upon Habermas to develop the beginnings of a critical theory of adult learning.<sup>29</sup> He explicates Habermas' notion of "emancipatory action" as one of three generic areas in which human interest generates knowledge—what is referred to in this paper as the purposes of knowledge. Likewise Snook attempts to clarify Freire's term, "conscientisation," a process of raising the awareness of people, to place them in a consciously critical confrontation with their problems in order to make them agents of their own recuperation. According to Snook, "Conscientisation will not just occur: it can only 'grow out of a critical educational effort.'"<sup>30</sup> Smyth, in "Towards a 'Critical Consciousness' in the Instructional Supervision of Experienced Teachers," argues for empowerment as the major purpose behind the practice of supervision. He reminds us that "to talk an impersonal supervision, is to still evoke feelings among teachers of an impersonal hierarchical process of inspection, domination, and quality control."<sup>31</sup> His hope for the future of clinical supervision is as "a means of 'empowerment' by which teachers are able to gain control over their teaching and, as a consequence, their development as professionals."<sup>32</sup>

It is an interesting question as to how we are to regard technical knowledge and its application. There are those who argue that technical knowledge, especially in the mathematical and the physical sciences, is neutral by nature. (Perhaps in education, we would call this neutral content "information," since our idea of knowledge includes the knower to the known.) However, it should be noted that when we *teach* in the sciences or mathematics (or any field, for that matter) we are not operating in a neutral posture. We are making decisions about *how* people learn about science or mathematics, as well as what is considered to be significant information for the learner to attend to. The implications for educators are awesome since we must learn to practice with a wide margin of uncertainty and questioning. The unethical part is when we stop questioning.

### *Approaches to Knowledge*

Educators have intuitively developed out of practice two approaches to knowledge—the application approach, and the reflection approach. The more conventional *application approach* directs the practitioner to "plan, imple-

<sup>29</sup>Jack Mezirow, "A Critical Theory of Adult Learning and Education," *Adult Education* 32 (Fall 1981): 3–24.

<sup>30</sup>Ivan A. Snook, "The Concept of Conscientisation in Paulo Freire's Philosophy of Education," *New Education* 2 & 3, 1 (1981): 36.

<sup>31</sup>W. John Smyth, "Towards a 'Critical Consciousness' in the Instructional Supervision of Experienced Teachers," *Curriculum Inquiry* 14 (Winter 1984): 427.

<sup>32</sup>*Ibid.*, p. 435.

ment, and evaluate." The planning aspect is thought of as application of prior information to a deliberate plan, thus forming the basis for action (referred to as implementation). The plan generally describes what one intends to do—in other words a rehearsal for acting—which may be quite different from a rationale for acting. We have still yet to learn about the nature of this involvement, what it yields, as well as the subliminal conceptual base out of which we act. Implementation is another form of application which amounts to the action of experience referred to as "applying the plan." Evaluation also focuses more on the plan than the action. How effective was the plan? Did the participants achieve the intent of the plan? Reality is in the plan rather than the events and consequences of the experience.

By contrast, the *reflection approach* to practice directs one to "plan, act, reflect, and evaluate." Reflection is a misunderstood, and rarely practiced, aspect of the educational process. It is often thought that reflection replaces planning since reflection focuses the reality of the events, not the plan. In any sound practice we need to plan, yet it is only *after* we have experienced that we can understand—that we can know. A search for the underlying rationale inherent in the experience as well as for the meaning, motives, and consequences of the action is the theorizing part of praxis.

Professional practice is universally regarded as a form of purposive action. Much is often made in education of the plan as an expression of purpose, a loosely made prediction of what will occur. In recent years, however, we have begun to realize that it is unrealistic to consider the plan as predictive, but rather to acknowledge that a plan is essentially a rehearsal for action, only a part of a written script to guide the experience. Professional action is regarded as the scenario during which the involvements are played out. Action is a basic unit to consider in relation to the actors and the context. It is important to note here that the statement "action is a basic unit to consider" should not be interpreted as "action is *the* unit. . . ." I am firm in the belief that the people involved in events are primary, not as objects of study, but as respected human participants. Reflection, then, is critical for understanding the meaning and consequences of that professional action.<sup>33</sup>

#### REFLECTION: A PROCESS OF INQUIRY

For the practitioner the process of reflection can be considered as a formal way to generate knowledge—different, say, from cogitating or medi-

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<sup>33</sup>It may not be coincidental that many physical scientists are currently examining shifts in perspective, questioning what basic units are under study, and positing a new view of the universe. Frank Capra's book, *The Tao of Physics* (Boulder, Colo: Bantam Books/Shambhala Publications, 1976), is perhaps one of the best known of this genre. See also Erich Jantsch's book, *The Self Organizing Universe: Scientific and Human Implications of the Emerging Paradigm of Evolution* (New York: Pergamon, 1980). A. Young in *The Reflexive Universe* (San Francisco: Delacorte Press, 1976) says, "The older concept of a universe made up of physical particles interacting according to fixed laws is no longer tenable. It is implicit in present findings that *action* rather than matter is basic, action being understood as something essentially undefinable and nonobjective, analogous, I would add, to human decision" (p. xxiv).

tating. Reflection is not a mental reexamination of past events aimed at justifying actions or defending the consequences. Neither is reflection a way of determining what should have been done—a way of replaying the scenario with a slightly different script. Reflection is done carefully, using stable versions (often written) of the experience with more than one round of written interpretations. *Reflection on action* refers to a formal procedure for studying immediate, at hand events in order to understand them and to develop a construal (or construals) for useful practice. *Reflection through recollection* is used when one does not have available the stable records of immediate events—where memory serves to recall more remote incidents. Reflection through recollection can also be a formal way of introspection—through examination of the sources of one's mythic and craft knowledge as well as one's emotional reactions and dispositions. Both forms of reflection are processes of inquiry which include written interpretations and confirmation from other sources.

A procedural representation of each process is presented below to suggest a formal way to regard reflection.

### *Reflection on Action*

1. *Involvement in a scenario*—for purpose of study, selected events are bracketed—set aside—in order to get a careful record. It is assumed that any scenario is a piece of action which has a history and a future.

2. *A record of the scenario*—a type of observation data gathered during the scenario for the purpose of getting *stable data*; that is, data which two or more people might use for analysis and interpretation. Recording techniques, such as audio or video tape, are common (including a typed script from these). A trainer observer can also provide verbatim data of critical incidents and description. The commonly used supervisory check lists and notes are considered unstable.<sup>34</sup>

3. *The meaning of the data*—making sense out of the records through discoveries, verifications, explanations, interpretations, and evaluations. (These are inherently different inquiry approaches when used with data from records.) A careful analysis can yield patterns and insights. These written results can take the form of notes, journals, narrative—very often they are fragments. It is here that the writer is urged to use writings from other sources, the literature of the field, to help with interpretation.

4. *The educational construal*—the events and meanings are put in an abbreviated, manageable (often conceptual) form for future use: an insight, a concept, principle, significant incident, portrait, or conceptual framework are examples of a construal. The essence of reality is "construed" from one form to another.

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<sup>34</sup>Noreen B. Garman, "Stable Data and Clinical Supervision" (paper presented at the Annual Conference of the Association of Teacher Educators, New Orleans, 1984).

5. *Confirmation*—a way to determine whether the construal has meaning to other practitioners—whether scholars have written about the events—how the practice under examination might be enhanced.

Reflection on action is similar in procedure to Cogan's cycle of supervision: observation (for getting a record of events), analysis (making sense out of the data), the conference (loosely related to confirmation).<sup>35</sup>

### *Reflection Through Recollection*

1. *Recall*—a process during which the practitioner rummages around in his or her memory and pictures past events or images. In this fashion one often recalls the significant parts of recollection. Accuracy is not a factor here since memory does not necessarily record precise detail without emotional attachment.

2. *A form of representation*—the recalled image or event is captured, usually in written form, although other aesthetic forms such as painting and music should not be entirely ruled out. One might even talk into a tape recorder using "stream of consciousness" fashion. Journal writing is the most common response to recollection.

3. *Interpretation*—after one puts into form a significant recollection, the expression is subjected to another round of considerations. What does the conscious expression of past events mean now? What has been discovered as a result of putting it into form? Anything hidden? The use of revealing words or phrases, emotional disposition, subliminal motives are all a kind of interpretive signal.

4. *Confirmation*—a way to determine whether the interpretation makes sense beyond one's own subjectivity. In what ways is it useful? Other writings in the field are common in order to confirm. Often this is a means to find appropriate language and insight to bring to bear on the interpretation.

Reflection through recollection can be effective in projects concerning personal and professional development where teachers are willing collaborators in the effort to understand their teaching from another perspective. Holly developed such a program, which provided support for a public school group through the use of teacher diaries and forum sessions.<sup>36</sup> She became a participant observer, taking careful notes for her own understanding of the teacher's world. Because of her unique role in the project, Holly did not feel the use of stable data of classroom events was appropriate. Teachers used their memory of the classroom scenarios for writing in their diaries and discussing in forum sessions. Toward the end of the project a teacher did ask if she might have a copy of Holly's observation notes. "This opened a new source for analysis and discussion. The teacher, and subsequently others,

<sup>35</sup>Morris Cogan, *Clinical Supervision* (Boston: Houghton Mifflin, 1973).

<sup>36</sup>Mary Louise Holly, "Teacher Reflections on Classroom Life: Collaboration and Professional Development," *Australian Administrator* 4 (No. 4, 1983): 1-6

began to think about classroom occurrences and respond in their journals to my notes. They found this helpful.<sup>37</sup> Holly's study emphasizes the importance of writing as a powerful tool for professional development.

Both reflection on action and reflection through recollection are important formal processes for examining practice. As shown in the Holly project, one may be more appropriate than the other. The point is that different types of results can be expected from each process.

Reflection through recollection is valuable for considering remote memories and images as well as memory from recent events. In a study using supervisors as participants at the University of Pittsburgh, we asked people to "rummage around in their head and picture a typical classroom" (recall) and then to write—describing the teacher in the scene, the students, and the supervisor (written form of representation). After they finished the descriptions they were asked again to write, "Please give your reaction to the writing task" (beginning of interpretation). The authors used pseudonyms, and all the writings were reproduced in a general document for group interpretation (and confirmation) during discussions. Five groups (or 99 participants) took part in the writing.<sup>38</sup>

The focus of the work attempted to get at the mythic and craft sources of knowledge of the authors and, in particular, to encourage participants to develop an appreciation for recollection and self-understanding through a formal reflection procedure. The results of the study were most promising.

The procedural representation of reflection on action and reflection through recollection presented above should not be thought of as steps to be followed sequentially and methodically. For example, one might keep several records of classroom data before writing what the meaning of the data represents (although running notes and memos are useful to have on record also). Not every observation yields a construal—it may take a series of actions and writings before one can put it down in a manageable construal for future practice. The imperative here is that the practitioner needs to be clear about the procedures for reflection on action—*acting, recording, writing, interpreting, construing, and confirming* are all important in one form or another to the process. Reflection through recollection is more illusive, less precise, and subject to wider interpretation, although perhaps more aesthetic. In both, the possibility of self-understanding and professional competence makes each worthwhile.

### *Reflection. The Heart of Clinical Supervision*

Personal empowerment is the essential ingredient for a professional orientation. This is a major assumption guiding the practice of clinical super-

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<sup>37</sup>Ibid., p. 3.

<sup>38</sup>Noreen B. Garman, "The Study of Educational Myth in the Practice of Clinical Supervision" (paper presented at the Annual Meeting of the American Educational Research Association, Montreal, 1983); Patricia Holland, "A Hermeneutic Study of Educational Myth: Implications for Clinical Supervision" (doctoral diss., University of Pittsburgh, 1983).

vision. The teacher who maintains a reflective approach toward his or her practice continues to develop a mature professional identity. By understanding and articulating the rationale one holds for action, and then acting in reasonably consistent ways, the professional gains a power and control over his or her own destiny.

In this context the function of the clinical supervisor is to provide the teacher with collaborative help that encourages the teacher to become the primary knowledge generator. The collaborative aspect depicts the supervisor in a prolonged arrangement with the teacher. Eventually the supervisor, through classroom visits, work sessions, dialogue, gets a sense of the teacher's proclivities, disposition, and hopes, while the teacher finds out about the abilities and biases of the supervisor. A mutual relationship evolves.

The mutuality of reflection on action then might be regarded from the supervisor's perspective as follows:

1. *Involvement*—the teacher and the supervisor agree on what the nature of the involvement in the class will be—what types of records will be taken—how the teacher will deal with the data, and so on.

2. *Observation*—during the classroom scenario the supervisor can help get a stable data base—as complete a record of the action as possible for later analysis. In some instances the teacher may arrange for data gathering from another source—for example, a videotape from a technician, or the teacher may ask a student to audiotape the session. The point here is that the teacher should be responsible for arranging the collection of data. This is not to suggest that personal contact by the supervisor is unimportant—but we are so programmed to think that the supervisor must always be in control by his or her presence that we fail to see the advantages of other possibilities. (It is assumed that over time the supervisor will have made several visits to the classroom.)

3. *Analysis/interpretation*—in the ideal situation the supervisor has considerable training and experience to be able to help the teacher to learn the skills of inquiry. Suggesting ways to make the data meaningful, providing a language for teaching, avoiding premature judgments and evaluations are a small part of the supervisor's skills. When supervisors are less experienced and skilled there is a certain amount of muddling through by the teacher and supervisor. However, it is assumed that the supervisor has a strong proclivity for reflecting on his or her actions as well as the teacher's. Over time the skills of inquiry are brought to bear on the reflective process.

4. *The construal*—initially, if the supervisor has sharp conceptual abilities, he or she will be able to help the teacher put the results of reflection into a useful form. Evaluation might be considered another form of construal here (although I emphasize the dangers in using this form) The explication of a concept often has more meaning for future practice than do the results of evaluation.

5. *Confirmation*—if the teacher and supervisor generally agree about the results of the process, this might be regarded as an initial confirmation. The supervisor can be a great help in locating significant writings in the literature in order to widen the understandings of the deliberations.

#### THE BASIS FOR ENHANCING PRACTICE

Ultimately the reason teachers and clinical supervisors work together is in order to enhance practice (both the teacher's and the supervisor's) and to make education better for students. In order to engage in the awesome endeavor, however, teachers and supervisors must have a reasonable language to talk about practice, we must have a common framework which pictures teaching in manageable ways yet doesn't reduce the larger action to trivial bits of behavior. Furthermore, the construals of teaching for supervisory work must be drawn for the purpose of helping teachers enhance practice. Perhaps this is the reason so much research on teaching done recently by full-time researchers is difficult for teachers and supervisors to use in their own school setting. Conventional research depicts teaching as a configuration of variables, often with valuable findings and implications—yet research results often lack the necessary construals designed specifically for the purpose to enhance teaching.

During the early '70s a group of teachers and myself and some graduate interns worked as clinical supervisors, in a preservice teacher education program in a suburban high school near Pittsburgh. Each summer we had a new group of interns. The seasoned master teachers and supervisors, realizing the need for a framework to help interns understand their needs, at first developed a list of teaching skills. The competency movement was in full swing at that time, and we quickly became disenchanted by the fragmented nature of our list of behaviors as a vernacular language to dialogue about classroom events. Yet, the specificity had a certain appeal to us. The following year we developed a construal which depicted four instructional roles. By organizing a given set of skills into recognizable roles which the teacher could perform and students could recognize, we felt we had improved our ability to dialogue. Now we were able to talk about the improvement of teaching as related to the teacher's ability to acquire a repertoire of instructional roles compatible with student and program needs. We have since expanded on the construal. At present we are picturing classroom scenarios by describing, first, the type of scenario; second, the role of the teacher; and third, the role of the students in the chosen scenario.

I shall briefly describe four common scenarios and the teacher's role in each (omitting the students' descriptions from this paper). Each scenario has a planning part and a classroom action part. After the scenario descriptions I will attempt to show how these helped the clinical supervisor to work with the teacher.

### Scenario 1. Information-Giving Scenario

The scenario reflects the role of the teacher as being directly responsible for content and information presented to students. The teacher is primarily the *imparter of information in some form*.

*During planning*, the role of the teacher might include:

- selecting appropriate materials,
- organizing for sequencing of materials, which includes an introduction, development, and conclusion,
- stating content objectives,
- being aware of time limitation,
- designing appropriate tests, and
- evaluating what students have learned as a result of information given or read.

*During classroom action*, the role of the teacher might include:

- introducing lesson,
- imparting information verbally in a well-organized manner,
- guiding students through readings,
- sequencing information—rate, sequence, scope,
- evaluating what students have learned in order for students as well as the teacher to know what they have learned from the material, and
- giving tests and helping students to evaluate results.

### Scenario 2. Large-Group Activities

This scenario reflects teacher-directed instruction, concerned both with content and student processing of the content. The teacher directs the learning processes of the group and, generally, all participants are focused on the same subject matter. The role of teacher is that of *director of learning activities* in a single group.

*During planning*, the role of the teacher might include:

- recognizing in some phenomenological fashion the complex mix of experience to be planned (numbers of students, subject matter, time, place, values, egos, etc.),
- formulating questions and anticipating possible response,
- planning clear directions for all activities (boardwork, work sheets, role play, etc.), and
- designing evaluation.

*During classroom action*, the role of the teacher might include

- introducing the lesson clearly so that students have a chance to perform well,
- asking well-focused questions and listening for appropriate answers,
- facilitating student ideas during discussion,
- giving clear directions and helping student activities, and
- evaluating so that students know how they have performed.

### Scenario 3. Student-Centered Instruction

This scenario reflects student-centered instruction. The subject matter may be the same or different for each student; however, the process of learning is managed individually or in small groups by the teacher's planning of learning tasks described to students in *student terms*. The role of teacher is that of *designer and manager of learning tasks*.

*During planning*, the role of the teacher might include:

- writing conceptually sound plans,
- assessing students for their tasks,
- describing tasks in simple, clear sequence—put in written form for students, and
- planning appropriate group learning structure.

*During classroom action*, the role of the teacher might include:

- preparing students well ahead for the scenario performance (perhaps rehearsals),
- providing each student with task description in written form, including an understanding of the roles they perform,
- monitoring students and helping when needed, and
- evaluating their performance.

### Scenario 4. Learning How to Learn

The scenario reflects the teacher as designing and managing structures in which students learn how to learn about subject matter. The teacher is primarily a facilitator and knows how various students approach learning tasks. The role is *teacher as designer and resource for process of learning how to learn*.

*During planning*, the role of the teacher might include.

- designing planning sessions in which students will plan for their learning,
- identifying resources needed,
- designing procedures for students to identify their own learning processes and style, and
- planning ways to collect evidence of student learning and a record-keeping system.

*During classroom action*, the role of the teacher might include.

- conducting student planning sessions,
- monitoring the flow of experiences,
- collecting products and evidences of the ongoing process as well as final products, and
- helping students to develop evaluation forms—and self-evaluation.

### CONCLUSION

The scenario approach provides a holistic way to construe different acts of teaching. It recognizes that the participants are the teacher and the students,

who both need to know what the nature of the scenario is in order to perform well. Where the supervisor and teacher are working together, one of the first tasks is to determine the kind of scenario the teacher has chosen, whether the scenario "hangs together" and the students understand what they are involved in, whether the scenario has vitality for the group. During this kind of dialogue the teacher often discovers inconsistencies as a result of a fuzzy notion of the chosen scenario or as a result of "mixing the scenarios." An example of this is that a teacher may be imparting lecture-like information (scenario 1) and conducting a recitation (scenario 2) within a single classroom event without realizing the confusion this may cause for students.

When the teacher and supervisor discuss potential changes in teaching as a result of observation data, the degree or magnitude of change is an underlying issue. For instance, if the teacher decides to change actions *within* a chosen scenario, this might mean some minor adjustments and accommodations. It will most probably require concentration and a replay of events in order to alter the action—but probably not drastic change. On the other hand, if the teacher decides to change from one scenario to another (perhaps trying a new version), this can be viewed as an extreme change and would require a vastly different kind of resource to help plan for the new scenario. The role of the teacher would need to be reshaped, but more importantly, the students' roles need to be carefully thought through. The expectation for success could be tenuous—until all the participants are comfortable with their new roles. (Perhaps this is why teachers and supervisors continue to give their attention toward the minor adjustments of the familiar scenarios.)

To provide a specific example of the above, a teacher suggests to the supervisor that she would like more "discussion" during a class centering around the assigned reading material. The supervisor, using conventional wisdom, suggests that the teacher, using the familiar large-group scenario, might examine her questioning patterns—multiple questions, ambiguous questions, trite questions, and so on—she might concentrate on the kinds of questions she is asking to elicit discussion. Perhaps the reinforcement patterns or the wait time for answers could also be considered. In any case, these are minor adjustments and will probably yield minimal overall change. The scenario remains intact with the same teacher/student roles—the teacher asks questions and waits for student answers. This interaction often resembles recitation more than profound discussion. A change in scenario, however, might look like this! Students are given tasks which require them to carry out a discussion about a series of questions or topics from the material. They are provided with resource material, time for deliberation, and guidelines for discussion. The students and teacher roles have changed, the scenario script is radically different, and the chance for confusion at first is great. So the teacher needs a different kind of support for this change, in addition to adequate time for all concerned to learn the new roles.

The classroom events here have been construed as scenarios in order to provide a way for the supervisor and teacher to talk about and plan changes in teaching. It has been a useful language for our purpose, but does not represent the complex and aesthetic world of the classroom. Academic subject matter, school and community interrelationships, commitment to learning, the culture of schooling, are only a few of the concerns of teaching. Most critical of all is the way a teacher develops humane and sensitive relationships with students. Caring is perhaps the single outstanding variable in teaching. Any construal of teaching is a meager, incomplete picture of what teaching really is. Still we are obligated to struggle for a better understanding of our practice.

The question "How can teachers change their orientation to include reflection as a part of practice?" is a vital one. It is unreasonable to assume that this will just happen. No reading material or lecture presentation can light the heuristic fire enough to transform the mythic and craft predispositions that are so deeply a part of all of us. I have described clinical supervision as a possibility for encouraging reflective practice. Whether the clinical supervisor is a highly skilled specialist who is educated to help the teacher, as an adult professional, toward reflection is not at issue here. In the best of all possible worlds this is the hope. (Cogan believed that clinical supervisors must be formally educated and extremely competent professionals.) For the present it may also be important to encourage colleagues to engage in the process, for one colleague to take on the role of clinical supervisor, with both colleagues agreeing to muddle through together at first.<sup>39</sup> I am, however, skeptical of school administrators "doing clinical supervision on teachers" (a common expression heard in the front office). From past experience I have observed administrators who have not had the time nor the disposition to engage in the prolonged involvements and inquiry required for genuine collaboration—still they play out the rituals of clinical supervision as if they are really making a difference. Hopefully, however, they might begin to encourage reflection on action for their own administrative practice.

In the preceding pages I have described reflection as a process of inquiry important for the professional educator, referring to teaching as the educative practice. Educators, however, include a number of different groups, supervisors, counselors, health care specialists, administrators—and perhaps even full-time researchers—as well as teachers. It is essential that members of these groups identify with the community of teachers, recognizing that we share a

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<sup>39</sup>W John Smyth and Collin Henry, "Case Study Experience of a Collaborative and Responsive Form of Professional Development for Teachers" (paper presented at the Annual Meeting of the Australian Association for Research in Education, Canberra, November 1983).

common heritage and a proud profession from which to study and shape education for the future.<sup>40</sup>

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Beane, James A., Conrad F. Toepfer, and Samuel J. Alessi, *Curriculum Planning and Development*. Allyn and Bacon, Inc., 1986. 500 pp. \$31.44.

This book introduces the student to the essential elements of curriculum theory and practice along with the opportunity to interact with the fundamental themes and issues of curriculum development. A general framework of the content and process of curriculum planning provides a helpful structure to conceptualize the interrelationships that exist in curriculum application. The authors provide alternate views and examples of the practical application of curriculum planning and development in the schools and identify future issues and concerns in curriculum.

—Gregory J. Nolan

Committee on Research in Mathematics, Science, and Technology Education  
*Mathematics, Science, and Technology Education: A Research Agenda*  
Washington, D.C.: National Academy Press, 1985. 92 pp.

This work recommends research be done in four broad categories: development of reasoning, better instruction, better settings for learning, and new learning systems. Among specific topics it addresses are teachers, curriculums, curricular materials, testing, political and social context, the classroom, the home, out-of-class settings, interactive computer software, and microsystems.

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<sup>40</sup>"Reflection, the Heart of Clinical Supervision: A Modern Rationale for Professional Practice" originally appeared in *School Based Professional Development: Course Guide and Readings*, ed W. John Smyth (Geelong, Victoria: Deakin University Press, 1984) and is reprinted with the permission of the publisher and the author.

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