



Developing Teacher Behavior in Clinical Settings¹

Ted Ward

It has always been hard to tell a fad from a trend. Innovations come and go. Progress is elusive. Only the hindsight of history gives a reliable perspective. Even when a new way of doing things seems to be getting at a basic need or a long-standing shortcoming in education, it may disappear as quickly as it arose.

Internship as Trend

Internship is not a new idea. Denoting a formally programmed training operation, internship is a twentieth-century term; but the precedents for supervised, semi-autonomous, on-the-job training can be traced to Biblical times. There is persistence in the logic of internship and a durability of the basic strategy which, like the smoldering of a quietly stubborn fire, bursts into flame from time to time, often in unexpected places. This apparently unpredictable waxing and waning gives internship the superficial appearance of a fad. It is tempting not to take it seriously. It is professionally unwise to be identified with a fad—"trends" which die aborning take their sponsors with them.

But is internship a fad? Granted that certain ways of implementing an internship, particularly the gimmick programs, are likely to come and go, internship as a basic mode of professional training, is more than likely here to stay. As defined in this yearbook, internship as the individually tailored mix of autonomy and supervision, of independence and support, of growth and evaluation, is virtually unchallenged as a responsible mode of instruction. It is important to note how the critical attacks on professional training in recent times either have omitted internship from the diatribes or, more significantly, have held up internship as the comparison model: "Why can't all of professional training be as worthwhile as the internship?" Student teaching, rudimentarily a sort of primitive internship, came through the denunciations of the 1950s stronger than ever. More recently, Dr. Conant champions the student teaching phase of the undergraduate program and endorses (almost willy-nilly) the various species of teacher educative internships while raising serious doubts about the worth of the rest of the activities of schools of education. Durability distinguishes a fad from a trend. By this test, internship is far more than a fad.

Durability is a somewhat negative test. Professional commitments should be made on other grounds. The more important criterion by which a significant innovation is distinguished from a fad is the contribution, or potential contribution, of the trend to the better understanding of basic phenomena. On this count, internship fares especially well.

The basic phenomena of the education profession are *educational* phenomena. By contrast, human development, human growth, human learning—environmental effects on these, social effects on these psychological responses and interactions with these—are concepts too broad to be considered basic phenomena of the professional educator. For sure, they are related to the

¹ Ted Ward. Developing Teacher Behavior in Clinical Settings (pp. 145-168). In *Internships in Teacher Education: 47th Yearbook*. Washington, D.C.: The Association for Student Teaching, 1968. Full text available at <http://files.eric.ed.gov/fulltext/ED028973.pdf>

educational phenomena, but they are more all encompassing. Professional educators in our society functions within fairly closely prescribed limits. The variables they control are delimited. They manipulate *instructional* variables. The pupil brings the learning variables and the social variables, in the larger sense. The practitioners of education must be particularly knowledgeable about the variables which are theirs to control, and they must know how these will impact upon the variables they do not control. Here is the basic measure of professionalism in the practitioner; it is concerned less with generalizations and more with specifications.

To the extent that the basic phenomena of education are educational phenomena, the appropriate training program for the professional person must be directly concerned with educational phenomena. To the extent that educational phenomena are specific (rather than general,) the appropriate training program must provide experience in dealing with specific problems. Here is the essential strength of internship training; it is concerned with specific problems in real contexts.

Yet, since internship is claimed to be more than a glorified apprenticeship, there has to be a dimension of learning deeper than the skills of arbitrary grappling with random “problems in real contexts.” What is this deeper dimension for the educator? To what unforeseen problems and tasks must the specific experiences of internship transfer? What is the generalization value of the internship? These are the questions that fundamentally challenge a mode of professional preparation. The answers distinguish internship as being far more than a faddish flash on the long horizon of history.

The Deeper Dimension

The “bag-of-tricks” model of teaching was never very popular. Throughout the long history of education—from the primitive and tribal, through the mystical and symbolic, to the technological and iconoclastic—the teacher in all eras and for all tasks has been recognized as being more than an actor of mechanistic roles. Though the teacher has rarely been recognized in his or her true import as controller of the destiny of the society, it is even more rare for a society to accept for long a model of teaching in which the teacher remains aloof or detached from the active processes of involvement with learners on mutually significant terms. In this era, we say that the teacher is a co-learner with the pupil. In earlier times, it was the matter of ethical example; and before that, the sagacious interrogator of youth. Methods shift according to cultural demand, but the deeper dimension of teaching remains more constant—involvement with learners.

How can teaching, then, be taught? It is difficult to justify activities in teacher education which fail to move the trainee into a deeper appreciation of the need for involvement with learners. Particularly vulnerable are the impersonal collegiate experiences in which instructors and students seem to meet each other at fingertip-distance from two separate worlds. But there is another, less apparent shortcoming in the contemporary teacher education program—the teaching of pedagogical methodology as if it were a body of precepts. The critics of professional education have had difficulty putting a finger precisely on the shortcomings of the theoretical portions of the preparation curriculum. Sometimes they argue that there is no theoretical side of education, but a quick glance at the vast output of odds and ends about human learning which the psychologists have generated sets that criticism aside. So they argue that the psychology and sociology faculties should teach these data—until they see how unprepared to face children in the classroom these bits and pieces of data leave prospective teachers. And then the challenge turns again to exactly what it should be that the professional education faculty should teach the prospective trainee. Sooner or later, the critics who are willing to debate or test their contentions concede that the experience of student teaching or internship is a realistic necessity and that something or other should be done to prepare the student teacher or intern to operate successfully in the classroom. But what? And here is

where the professional educator is often uneasy. If what we do before the internship is important, why do students so often react negatively? Students seem so vulnerable to the siren song of the teacher next door who seductively whispers, “Just forget that garbage they taught you at the university and I’ll show you how we do things here.” Could it be that our approach to methodology and the reality of the internship experience are in conflict?

Teaching must be taught in its own terms. It should be apparent that, since example is a powerful influence, the way teachers are taught will structure, to a large extent, what they think teaching is supposed to be. Thus, the first proposition is that good teaching models should be characteristic of the pre-internship professional courses. *What* the subject matter of these courses is to be, raised another issue. Typically, the justification for a pre-internship course is that it provides “principles.” The course may be educational psychology, educational sociology, methods of teaching or any of the proliferated euphemisms for these titles, but the course description invariably talk about principles of one thing or another. Is teaching, in its own terms, a matter of applying principles or rather of constantly generating, testing, and refining hypotheses? We have assumed the former for quite a while; it’s time to test the latter.

The second proposition is that pre-internship courses should convey an understanding of methodology as a body of hypotheses upon which a teacher acts—testing and refining, thus tuning and re-tuning to the changing and varied needs and characteristics of learners. The deeper dimension of internship is its potentiality for establishing patterns of continuing refinement of the propositions upon which the teacher bases his moment-by-moment interaction and involvement with learners.

Transfer of Learning to New Problems and Tasks

In an era of innovation and revision, the profession has learned the value of flexibility. Now it is easy enough to understand what the sociologists have been saying for years—that the forces of social change are accelerating, that a technological domination is upon us, and that basic social roles in the family and in the school are changing. In many occupations and professions, elements of the old guard are staging last-ditch battles against inevitability and, sadly, a false aspiration for modernity entices many others into valuing change for the sake of change.

From a research standpoint, education lacks an adequate theoretical base from which to generate experiments and evaluative criteria for the new technology of teaching. Old models of comparative evaluations are inadequate to the challenge. The variables are too intertwined, the hypothetical values too poorly defined. Studies keep showing “no significant difference.” But the practitioners *see* differences; they know they are there. So they discount the research. In the final analysis, the subjective judgments of individual practitioners determine whether a teaching procedure or an instructional material will be accepted or rejected.

There are two ways to view this dilemma. On the one hand, it is reasonable enough to push the panic button. There are floods of new things to do in classrooms; we must erect barriers against them or be inundated. It is virtually impossible to objectively sort out the promising innovations from the opportunistic innovations. We must keep the faith, the *old* faith. Or we can *view the situation as a fresh set of imperatives* to get the house in order. If we lack an adequate theoretical base, we must renew our efforts to build one. If we lack ways to evaluate effectiveness in terms of learning, we must design them. If teachers find change threatening, we must teach them how to accept and shape change. Here is where internship holds such important promise.

The sort of precept-oriented approach to methodology that is characteristic of a principles-type teacher training is simply inadequate for today’s era of rapid change. Any professional preparation program, indeed any experience within a program, must be assessed in terms of its contribution to the trainee’s capability of functioning over time in a series of changing styles, modes,

and roles, many of these unknown and unpredictable, at present. Professionals need a set of behaviors which begin with a way of looking at things, a way of diagnosing, a way of postulating alternative actions, a way of estimating probabilities, a way of deciding and implementing, a way of evaluating outcomes, and a way of feeding the meaning of outcomes back into their way of looking at things. If, during their professional training they can learn to behave in such a tactical cycle of operations, they will be in a position to change *knowledgeably* as the demands of their clients and environment change. The internship is precisely the occasion to adopt such a cycle style and the behaviors which it requires.

Generalization Value of the Internship

No training program, however rich in field experiences, can provide direct experience with all the situations, problems, and issues which will occur in the practitioner's world. (If it could, the program would be more correctly called apprenticeship.) It is precisely the impossibility of giving supervised practice in *all* problems that makes internship important. The particular internship assignment should probably be selected to have some similarity to the situation in which the trainee will be employed after internship, but the more important concern is that the internship has generalization value adequate to encompass the several situations in which the newly arrived professional might find himself. This criterion forces us to evaluate internship itself in terms of generalization value. In teacher education, it is not nearly so important that pre-internship courses prepare the trainee to behave like an intern as it is that internship prepares her to behave like a teacher.

Exactly what is required of a teacher in any given situation is never very clear. How teachers, in general, are to behave while engaged in teaching acts is even more imprecisely defined. For many years, teacher education programs have designated certain experiences "special methods" courses and others "general methods" courses, but there is no empirical base for these distinctions. We are not very clear on what is special and what is general when comparing the teaching of different subjects or different age levels. We are even less clear on what experiences are important and what experiences are unimportant for an intern. Generalization is a problem not only of *kind* but of *importance* of experiences.

The significance of internship in providing a generalization of *kind* lies in its naturalism. Since it is carried on in a real environment (not predictably different from that, which will confront the beginning professional,) its generalization is a product of natural occurrences rather than the selections of a fallible preceptor. The significance of internship in providing a generalization of *importance* lies in its mode of supervision: the senior practitioner's capability of assisting the intern in the identification and reflective study of the experiences which are particularly crucial, problematic, sequential, or in some other way important, is the most significant supervisory contribution to the generalization value of internship. Internship, then, has a high generalization value in *kind* of experiences and, in terms of supervisory contribution, in *importance* of experiences.

It is the important combination of senior practitioner supervision and clinical experience which makes internship training one of the most important innovations in the brief history of modern teacher education.

Internship as Clinical Experience

Internship, when examined for its particular contributions for its uniqueness and for its promise, leads to a view of teaching and the environment of teaching activity as being educative processes in themselves. In order to examine the internship as a learning experience, certain concepts,

terminology, and propositions are useful. The particular concepts and terminology concern *models*, as the behavioral scientist conceives them, and *clinical* processes, in a rather delimited sense. The proposition which arises is one of viewing teacher improvement as a *cyclical process* of hypothesizing, acting, evaluating, and re-hypothesizing.

Models of Teaching

Every teacher acts out a model of teaching. There are virtually as many models of teaching as there are teachers. But these models overlap, they fall into clusters of like and nearly-like behavior, and they can be compared. *Model*, in the useful sense of the term, is borrowed from other fields of behavioral framework within which a person or group of persons is acting out a role or roles. It is the behaving rather than the attitudes about the behaving that constitutes the behavioral model. Thus, it is what a teacher *does* that defines what is in the model, and what a teacher avoids doing that delimits the model. *Model* as ideal or optimization, as perfection or utopian example, is not at all the sense in which the term is used.

The limits of models of teaching may be wide or narrow. One teacher may act within a narrow range of self—and other—tolerances; another teacher may act out a wide latitude of self—and other—tolerances. These two may agree on some borders of their model of teacher behavior and not agree on others. For example, they may disagree about when to frown or whether to reject a late assignment, but they may agree that a teacher cannot strike a pupil. On more gross or societally regulated behavior, agreement (coincidence) between models is common. On more subtle or purely professionally regulated behaviors, agreement is less common.

Models and Attitudes

For many years, research on teachers and teaching has been cast in the framework of psychological investigation. The determinants of behavior have been given more attention than the behaviors themselves. The investigative instruments in most common use today reflect this fact. Teacher attitudes, stances, personality traits, preferences, values, and other such psychological constructs are tested for possible correlation with each other and with various concepts of *success*—success in adjusting, success in student teaching, success in first-year teaching, and so forth. There are attempts to push almost any identifiable correlations into predictions. The desperate search for valid correlative criteria and the widely argued need for entrance-screening for teacher education make the predictive use of psychological measurement very appealing. But in the cool of afterthought, we note that personality is a stubborn set of phenomena, not readily altered by selected educative experiences. Compounding the problem, we have only shaky grounds on which to argue that any given psychological element or personality trait is really a determinant of competence in teaching. And, even, if we could be sure, would we be willing to admit that such a determinant might be virtually unchangeable within the student's limited exposure to professional pre-service courses?

Psychological inquiry must continue. Far more remains to be learned through studies of personality and the impact of experiences in professional education on the teacher's mental and emotional processes. In addition, research on teaching and teacher education needs to intensify the behavioral dimension. It is not enough to examine attitudes about teaching, attitudes toward pupils, and attitudes toward peers and administrators. The manifestation of an attitude is in the behavior of the teacher: how he acts (what he *does*) while teaching what he communicates to pupils, and how he conducts himself with his peers and administrators.

That teacher education should similarly be intensely concerned with the behavioral aspects of teaching seems equally obvious. The contention that internship-based programs provide a promising improvement for teacher education can be interpreted as an agreement for more behavior-oriented pre-professional educational experience. The challenge of theory's relationship to

practice is met, in part, by making the study of the basis for behavior an integral part of the environment wherein the new teacher must act out the behaviors which comprise the teacher role.

Sources for Models

The student teacher or intern brings a model of teaching to her assigned classroom. This model is a composite of behavioral elements from many sources. If she was able to give a verbal description of her model she would express her *beginning model* as a series of statements in the form of “given . . . the teacher . . .” and “given . . . the teacher must not do . . .” Such a series of statements, if it were possible to commit them to paper, would constitute a prescriptive behavioral statement. It has not been established how much of teaching, as it is typically practiced today, can be reduced to a set of rational prescriptions; nor can it be demonstrated that teaching *ought* to be essentially a process of largely prescriptive behaviors. But those who are frustrated by the lack of definition and the slippery training problem associated with an *intuitive-behavior* concept of teaching are strongly disposed to postulate the validity of a rational decision-making model. Regardless, the beginning student teacher will do what he does because he thinks it is appropriate, and he will seek clues as to what else he ought to be doing. Those who work with student teachers note their tendency to copy and their inclination to follow any specific suggestions, almost to the point of slavishness. What else can be expected? Their training, up to this point, has been largely generalizations. To assume that they will have already transformed into plans of action and behavior the principles and the methodological concepts of their prior course work is hardly realistic. At best, they come into student teaching or internship with a tentative model of teaching.

The sources of elements within this tentative (beginning) model are varied, more or less inappropriate, and often anachronistic. One major source, itself a discordant mixture from many sources, is the variety of teaching models which the new teacher has experienced during his 15 or more years as a student. He has experienced the consequences of all sorts of teacher behaviors. Some of these have made lasting impressions, some he consciously emulates, and others he consciously rejects. “The student teacher teaches as he was taught,” it is said. Why? Because this has been the most potent source of elements for his beginning model.

Her recollection of herself as a child and her childhood companions as pupils is another source of components in her beginning model of teaching. There is good reason to suspect that many of the elements which come from this source are faulty or anachronistic. Doubtless, recollection of the *pleasant* years of childhood or the *exciting* subjects in school is a factor in choosing the grade level or subject one intends to teach. Very likely it follows, thus, that the expectations about what it will be like to teach that subject or that level are a product of personal experience. To what extent these juvenile experiences were realistically perceived and to what extent the young adult is able to identify the salient factors is amusing to speculate. That these recollections do find their way *into the body of expectations* of role and behavior seems probable. Do they reflect the *contemporary* child? Do they account for the range of differences among youngsters of that age? Are they idealistic fantasies rather than accurate perceptions? Are they limited by social class or regional distinctions? Recollections of what it was like “when I was a kid” are a shaky basis upon which to build a model of teaching.

Another source is the study of teaching, itself. During the courses in education the student’s expectations of teaching, his expectations of children, and his self-understanding have been altered; he thinks about things in a new way; he learns things he did not know. These result in revisions in his model of teaching. He will behave somewhat differently in his beginning model. These changes can be credited to the pre-student-teaching portions of the teacher education curriculum.

The fourth of the major sources for the elements in the student teacher’s beginning model is the environment of student teaching or internship. For sure, these elements are the last to enter the

model but they are quickly assimilated before the student teacher has become steadily involved in the teaching duties. The tendency of many student teachers to emulate (sometimes ostensibly unwillingly) and to carry out what they think to be the activities, and even the personal style of the supervising teacher, is evidence of the dominance of this source of elements in many beginning models. It may be that the tendency to adopt the perceived style and methods of the supervising teacher springs from insecurity; perhaps the student teacher whose model is least well-defined or whose expectations of herself in the teacher role are inadequately developed to a rational and cognitive level (the student teacher who doesn't have the foggiest idea what she's supposed to do) is the most apt to seek and rapidly integrate *any* clues about roles and behavior, regardless of the source.

Internship as Corrective Agent

Each of these four sources is defective and the composite beginning model is predictably inadequate. One of the most defensible arguments for the internship is its potentialities for correcting the defects in the beginning model and its contribution to the development of a more adequate model.

This first source of an internship model (personal experience as a student) needs to be inverted. Just as Bruner argues that a theory of teaching is not the other side of the coin from a theory of learning, it must be remembered that learning to teach does not derive from long experience as a pupil. In many respects, these are contrast-counterpart roles. Internship provides the much-needed extended opportunity for role shift—from pupil to teacher. The second source (recollection of self and others as children) needs to be re-focused upon a broad spectrum of today's youth seen through adult eyes. So long as this source remains more a product of recollection of childhood than a contact with children, it will be faulty in unpredictable ways. Internship's client-centered professional contact can readily correct this defective source of model elements. The third source (the study of teaching within pre-clinical courses) requires a different sort of correction, more on the order of reality-adjustment than of any reversal or inversion. Internship provides the place and the stimulus to learn about teaching as a process of testing in action the principles learned elsewhere. In a sense, the fourth source (the environment of the internship) is the only self-correcting source. Provided the intern moves beyond the initial (and very likely inadequate) cues about the behavioral demands of teaching, the early defects will be readily corrected. In this respect, it is useful to think of the teacher as a data processor—receiving from the immediate environment information which is to be processed within the framework of the stored data about objectives, procedural intentions, content to be communicated, and so forth. It is reasonable to suggest that teaching the rudiments of this particular style is preferable to a teacher education which attempts to teach principles of learning and a methodology which students perceive as precepts.²

Clinical Sources of Teaching Models

The term *clinic* and the adjective *clinical* have a fairly wide assortment of meanings. *Clinic* is often used to denote the sort of relationship or environment in which a particular kind of professional activity is carried on. Although the term is most commonly associated with medical practice, it also has important uses in psychology and education. In essence, *clinical* refers to a problem-solving or decision-making arena in which professional practitioners confront their clients. In education,

² Ted W. Ward. Professional Integration and Clinical Research. In James Rath and Robert R. Leeper (eds). *The Super-Agent for Change in Teaching*. Washington, D. C.: Association for Supervision and Curriculum Development, a department of the National Education Association, 1966, pp. 57-84.

clinical activity is all that wherein teachers (practitioners) deal directly with their pupils (clients.) If left at such a general level of usage, the word lacks significance; without particular significance, a specialized word is weak jargon. Education needs the word *clinical* to denote that sort of confrontation between teachers and learners which encourages teachers to test and improve the hypotheses upon which their practices are based.

Many skills are learned by doing. There is a folk saying which expresses it: “Experience is the best teacher.” Teachers learn by experience. In simplest terms, teachers learn what will and what won’t work; they learn when to do what, and they learn how to watch for the cues which tell what impact their behavior is having upon pupils. Teaching models can be refined through the processes of such experiences. Perhaps all teaching models are affected to some extent by experience. But the teaching Model, which is designed to deliberately and effectively capitalize on the unfolding of experience, is the model most apt to constructively integrate experience as substantial professional learning.

The internship can be an important clinical experience. As he begins, the intern is putting into practice a model of teaching which he has derived from as pre-internship experiences and the initial internship contacts. He will be encouraged to sharpen his analytic and evaluative skills, aided by feedback from the consultant or supervisor. He can learn, during the internship, to adopt a cyclical stratagem within his teaching model. To the extent that his initial model is composed of rational elements, he can see himself as a decision-maker. He is perceiver and analyst; he makes prescriptive choices of action on the basis of his analyses. He carries out a treatment plan, and he evaluates its consequences in action. Next is perhaps the most crucial part of the decision-making stratagem in the teaching model—taking the evaluation of the success of a given treatment plan into account in the strengthening or modifying of the hypothesis upon which the action was originally based.

A Clinical Cycle

Such a *clinical cycle* of procedures within the intern’s learning experiences can be expressed as a three-segment circle of dynamic processes: hypothesizing, acting, and evaluating. Figure 5 pictures the cyclical procedure in which methodology is seen as a set of hypotheses which consistently regularize practice, practice leads to evaluation, and evaluation of the consequences of a practice leads to modifications in the hypotheses—either change or reinforcement.

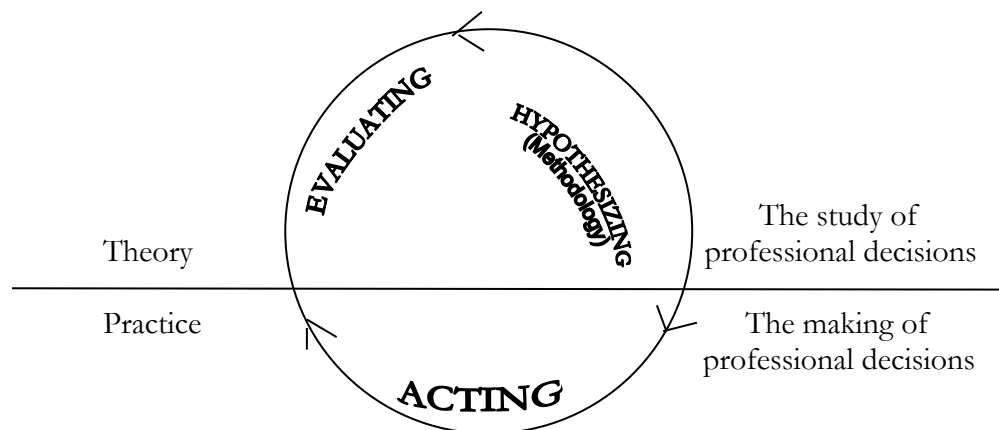


Figure 5. The Clinical Cycle: The Relationship of Theory and Practice in an Applied Science

The process of hypothesizing and the residue of refined hypotheses—tested but always open to further test as times, children, and materials change—become virtually the methodology of

teaching. Rather than a body of principles and specifications of action built thereon, the methodology or pedagogy is one of generating rational propositions and deriving plans of action (teaching procedures) which provide for their testing and subsequent refinement.

The *acting* phase of the cycle is the *doing* component, the behaving, hence the *practice* of the practitioner's role. But her role as a professional cannot be merely a *doing* or overt role. Her role has a theoretical aspect which provides the basis for differentiating and making relevant the actions she selects according to the demands of the situation. So far, so good; most pre-clinical courses in teacher education are concerned with theoretical bases for taking action. But the linkage between the theoretical and the practical, between the hypothesizing and the acting, is too often left to the inadequate speculation and intuition of the new teacher. She may see no alternative to seeking an automatic transforming of precepts into actions. The cyclical process gives her an alternative: the heart of the process is the evaluative feedback which suggests the needed modification of the hypotheses structure. The lack of this modifying feedback makes for a rigid teacher and bruised learners "If at first you don't succeed, try, try again" can be implemented by irrationally trying the same unsuccessful thing over and over. Or it can, instead, be a selective process of trying rationally to alter the tactical procedure to accommodate and circumvent the blocks which earlier tries revealed.

If ways can be found to help teachers base their teaching-behavior models upon a clinical cycle of refinement processes, important gains can be forecast: the teacher can be open to, and yet critical of, proposed change; the teacher can learn more (get more meaning) from experience; the teacher can communicate more ably about what he is doing since he is cognitively aware of the rational processes; and the task of teacher education can be more concentrated—concentrated upon the building of the clinical cycle itself so that systematic learning from experience will provide a basis for lifelong improvement.

Internship as Hope

Professional education has difficulty finding a place in the curriculum for programmed instruction, IN-basket tasks, simulators, and other high-efficiency training procedures. In spite of the substantial efforts by the American Association of Colleges for Teacher Education (AACTE) in recent years, even filmed episodes of classroom teaching experiences are only slowly being adopted for use in pre-service professional courses. In contrast to field of business, industrial, and professional training in which such innovations find ready acceptance, professional education is less precise. There is less common agreement about what behaviors are desired in the professional. Perhaps this is as it should be; perhaps education is, by nature, a field in which precisely defined behavioral objectives are unrealistic. Perhaps the essence of teaching is art and intuitive processes. Or maybe this is only a developmental stage in a longer evolutionary series of refinements; in some future day historians of education may look back with condescending amazement at our tolerance of ambiguities!

Speculation aside, in this age of technological innovation we should be very sure that we want teacher education to be by-passed. A stance of suspicious, unreasoned aloofness should not be allowed to determine the future. If we have evidence that teaching is of such a nature that its practitioners must be essentially intuitive artists of the culture, we must then pay a substantial price in the form of arduous and unmanageable training processes (if, indeed, it can be shown that such teaching skills can be taught at all.) But we should not pay this price by default; and in the absence of such evidence, it is incumbent upon some of us to act upon the alternatives. Now is the time to mount huge efforts to build or derive behavioral definitions of teaching. Now is the time to research

the previous assumptions—to find out what is general and what is special among the methods of teaching various subjects and levels; to find out through careful follow-up what demands are put upon our graduates and in which of these they fail to measure up; to listen more closely to what our students can tell us about the relevance and irrelevance of various aspects of their training, and to find ways to evaluate competence in teaching in terms of behavior change in pupils. In so doing, the field of education can become a behavioral-science discipline and a vast new world of more efficient and more potent educative experiences can be employed. Programmed instruction is only a small part of this new world, but it has focused educators' attention on the key problem: Without precise statements of objectives—in evaluable behavioral terms—effective programs cannot be constructed.

The contemporary era in American education, with its change-charged atmosphere and its spirit of aggressive innovation, has placed a premium on the teacher who is both adaptive and evaluative. The *adaptive* characteristic is demanded by the emerging instructional setting; slowly, but surely, shifting toward an integrated man/machine system with a variety of human roles. The *evaluative* characteristic is required as a protection against the proliferation of bandwagons which entice the schools into a succession of modish “experiments.” That so many of these haphazard changes are not valid experiments is ample testimony to the lack of evaluation-oriented people in the profession, at present.

Teacher education, in the recent past, emphasized the then current *how* of teaching without setting the stage for change to future *how's*. For so long, teacher educators have fought a rearguard action against the sniping of those who maintain that teaching can't be taught or that it can't be taught by the professor of education that creative energy has been sapped and a virtually paranoid stance has resulted. Meanwhile, another generation of teachers has experienced a largely pedantic training program pre-occupied with principles which treat the right and wrong of teaching procedures, the good and bad of curricular structures, and the academic debate of irrelevant issues. What can be done to shake loose from the traditions of a recent past in which we *had* to defend the status quo? Our students need to have the behavioral style of careful pioneers; they face a lifetime of change.

If we contend that teaching can be taught, we are likely also to contend that teaching, as it is now practiced in the schools, can be improved. In a day of rapid changes and societal realignments, it is a credit to the teaching profession that there is this concern about improvement. There are three possible approaches to procedural improvement:

- To do less of whatever is ineffective.
- To do more of that which is effective.
- To add that which is needed, but lacking.

The primary problem is identification of the strengths and weaknesses in the present operation. Next must come an analysis to identify the gaps and propose ways to fill them. With these data in hand, all three approaches are possible—reducing, emphasizing, and adding. Internship has arisen, in part, from such analyses. Many colleges and universities have attempted to sort out the strengths and weaknesses in teacher education. Practical and realistic experiences under expert practitioner supervision, co-operative participation with elementary and secondary schools, applications of theoretical concepts to the study of actual problems in practice—these strengths are commonly recognized. Abstract study of principles, isolation from the elementary and secondary school environments, professional unawareness of the contemporary characteristics of youth and their schools—these weaknesses are still with us. Thus, grows the impetus for internship-based teacher education, a remarkable expression of the desire to improve teaching by improving teacher education.