A new model for preservice teacher education exemplifies recent developments in the field. It is based on specifications of instructional and program goals in terms of behaviors to be exhibited by the trainee in three broad conceptual areas which imply a hierarchy of teaching competencies: mastery of content knowledge produces subject matter competency; mastery of content knowledge plus behavioral skills produce presentation competency; mastery of both plus humanistic or personological skills produce professional decisionmaking competency. Appropriate instructional modes (e.g., programed and computer-assisted instruction, video tape models, microteaching, classroom simulation materials) have been developed to assist each trainee to achieve the competencies individually. Performance criteria reflect the differentiated roles candidates will assume in a professional staff, and training for flexibility will make teachers change agents for schools. Implications of these trends for school principals: (1) Inservice training should become an extension of competencies. (2) Refined performance criteria can allow selection and promotion processes to be more objective, and supervision truly diagnostic. (3) The principal's role will shift from disciplinarian and evaluator to organizer, director, and facilitator--creator of a flexible setting to nurture teacher innovation. (JS)
As educators we are all agreed that the decades ahead must see radical changes in the preparation of teachers. The so-called "Great Debate" on teacher education has served to sensitize us to the inadequacies of our past and present practices. In reality, however, only minor modifications in long existing practices have been effected. Many of the changes in recent years have been disappointing because they are merely variations on old themes. This type of change not only disappoints us in practice but it also serves to obstruct progress as it reinforces existing patterns of teacher training under new rubrics and obscures many of the highly questionable assumptions upon which current rationale is based. If we are to change teacher education for the better, we must be bold enough to challenge these fundamental assumptions and imaginative enough to provide rational alternatives. Some very recent developments in the field of education have encouraged and promoted the endeavor of designing and implementing responsible educational innovations which challenge long standing pedagogical dogma. In this article, we would like to discuss some of those innovative concepts with which we are most familiar and how they affect and are reciprocally affected by the school principal.

A New Model for Pre-Service Teacher Education

The faculty of the School of Education at the University of Massachusetts has developed a new model of teacher education which is but one example of applying sound learning principles to an integrated innovative effort. This model utilizes teacher education as the core on which the entire program for the School of Education is based. Thus, teacher education is influencing and shaping all other aspects of the School rather than being shaped by them, as has been the case in the past. Figure 1 shows the expanding potential inherent in the focus of the program.
The goals of the teacher training program have been formulated as follows:

- Since there is no real evidence of the efficacy of any one major strategy of teacher training, this program must include as many widely differing over-all strategies as possible in order to provide for examining training consequences, for developing insights into relative training efficiencies, and for discovering the relative acceptance and appreciation of the process by the trainees.

- On the assumption that not only the trainee's strengths and weaknesses will change during the program as a desired consequence of training, but his needs as well, one major goal is to provide continual diagnosis of the needs of each trainee and a constant evaluation of the program components designed to meet these needs.

- As a consequence of the above goal, one of the most important emphases throughout the program will be to develop multiple program alternatives so that there are never fewer than two equal and alternative paths to the same objective.

- In most teacher training programs, the university's commitment ceases upon graduation. The graduate rarely receives diagnostic help, but instead is merely evaluated. On the other hand, this program assumes that a teacher's training never ends, and therefore it is developing a closely knit relationship between pre-service and in-service training. The resources of the University, both technological (such as videotape) and human (such as supervision) will be made available systematically to the graduate. In addition, these
The program includes identifying specific performance criteria, based on task analysis of teacher training. At the same time, instrumentation is being developed for assessing each trainee's progress at multiple points in the program.

Performance Criteria as a Planning Principle for a New Model in Teacher Education

In order to formulate performance criteria, we must specify instructional and program goals in terms of behaviors to be exhibited by the trainee when instruction has been completed. Careful formulation of performance criteria liberates the teacher training institution from offering a program that is exclusively made up of traditional "courses." This program recognizes that there are alternative paths to reaching many of the competencies required of the well-prepared teacher. It is the task of the teacher trainers to develop meaningful criteria and to plan ways of assisting the individual in choosing the most effective and efficient means of meeting these criteria. At the University of Massachusetts, the task of defining relevant performance criteria has been undertaken by staff with as wide a variety of backgrounds as possible, including personnel from all levels of the School of Education, University personnel from outside the School, and outside consultants. This juxtaposition has brought fresh perspectives to problems of teacher education long viewed from too standard and too predictable a perspective.

Task forces have been established to develop performance criteria and to develop some resultant potential varied learning experiences in three broad conceptual areas related to teaching: content knowledge, behavioral skills, and humanistic skills. (See Figure 2.)

Content Knowledge

The restatement of content requirements from time-and-unit to performance criteria has been a major thrust in our planning effort. We have recognized the fact that knowledge is derived from many sources, formal course work being only one. Content knowledge has been defined to include the depth and breadth of content most often seen as deriving from undergraduate liberal arts courses, as well as the kind of content knowledge most often associated with that acquired within a school of education. The latter is seen as a logical extension of the former, inseparable, but focused on questions of relevance and conceptual organization for pupils at the elementary and secondary levels.

To develop content performance criteria for teachers, the School of Education has had to collaborate closely with the other faculty in the University. Results of this collaboration have been enhanced by the use of consultants drawn from the ever-increasing pool of respected academicians who are also addressing themselves to questions of curriculum and teaching strategies at the elementary and secondary levels. We are presently in the process of focusing on the definition of goals which must be achieved by those planning to reach certain subjects and/or certain levels, and then defining performances which will demonstrate the candidates' achievement of these goals. Three kinds of goals and related performance criteria are being examined:

- What general, cumulative knowledge should be demonstrated before a candidate will be called "educated"?
- What kind of specialization and in-depth knowledge should a trainee demonstrate to be effective in the particular role for which he is preparing?
- What should the person be able to do, organizationally and conceptually, with this knowledge before he is ready for a particular professional role?

Figure 2
Performance criteria reflect the different roles for which candidates are preparing, and differentiated requirements will be established for each role. We are currently developing six differentiated sets of content performance criteria to prepare teachers to teach: kindergarten and preschool, primary students, intermediate students, junior-senior high school students, a single subject at several levels, and two or more related subjects at several levels. In addition, we are developing additional supplementary criteria for candidates who specifically intend to teach special contexts such as the inner city. In the program, success in developing content performance criteria is being measured by the extent to which "prerequisites"—stated as courses and course equivalents—are being replaced by relevant, clearly defined, expected performances which are not course bound.

Behavioral Skills

One of the basic goals of the teacher education program is to develop technical skills of teaching. The basic premise of the technical skills approach is that much of teaching consists of specific behavioral acts. If we can identify skills and behavior that teachers perform often in the classroom, we can then develop different training protocols or established procedures and techniques in order to produce proficiency in their use. In other words, much of the complex act of teaching can be broken down into simpler, more easily trainable skills and techniques. A particularly successful technique for developing specific teaching skills is the process known as micro-teaching. It exposes the trainees to variables in classroom teaching while reducing the complexity of the situation. The teacher attempting to develop a new teaching skill is not confronted with preparing a lesson plan of 45 minutes in length, nor does he have to worry about the management of a group of 30 students. By teaching a small class of usually four students, for a short period of time (five to twenty minutes), the teacher trainee is able to focus his attention on mastering a specific technique. One of the major components of this new teacher training model is extensive implementation of micro-teaching in order to train prospective teachers in the technical skills which have been and will be identified.

The technical skills approach is not one of just mechanical competence in certain teaching skills. Along with gaining proficiency in the skills, the teacher trainees are encouraged to become professional decision makers. The trainees themselves must decide when to use which skills to meet the aims of instruction and the needs of the pupils. The teacher is the instructional manager of the classroom. As such, he must make decisions as to the appropriate method of achieving the instructional goal, when the particular method should be used, and what activities should precede or follow it. Since such decisions face the professional teacher everyday, an effective training program must assist the prospective teacher to become an effective decision maker. With a large repertoire of behavioral skills clearly mastered, the teacher can become a really effective decision maker. He will be well equipped with alternatives so that he can focus in an effective way on such problems as individualizing instruction and developing students' special talents and interests. He simply has more skills available to reach individuals, to motivate students, and to improve the effectiveness of instruction.

Humanistic Skills

Clearly, good teaching consists of more than profuse usage of technical skills. Teachers must be aware of unique community problems and of students' feelings. Especially important, teachers must be aware of themselves. Formal instruction in psychology and sociology are continually complemented by experiences in which the trainees become personally involved on an affective level.

Although developing performance criteria in the humanistic domain is extremely difficult, its potential payoff will be tremendous. We are currently attempting to arrive at a consensus of goals relevant to teacher education in the humanistic area by extrapolating from the literature on currently used training techniques. These techniques include T-groups, sensitivity training, and interaction analysis. We are also examining the educational relevance of notions presented by humanistic psychology. In viewing the teacher as a facilitator of learning, as Carl Rogers suggests, it becomes obvious that we must develop and encourage such personal attributes as realness, acceptance, and empathic understanding during the teacher training process.
A Hierarchy of Teaching Competencies

The three areas developed for performance criteria which have evolved from this new teacher training model imply a hierarchy of three areas of competency necessary for superior teaching: 1) mastery of content knowledge produces subject matter competency; 2) mastery of content knowledge plus behavioral skills produce presentation competency; 3) mastery of content knowledge plus behavioral skills plus humanistic skills produce professional decision-making competency.

The goal of competency in the subject matter, presentation, and professional decision-making areas serves as the guiding basis for the new teacher education program. Obviously these competencies are interdependent and cumulative, as are the skills and knowledge necessary to produce them. As we define desired performance criteria in the content, behavioral, and humanistic areas, we also develop modes of instruction which are specially designed to assist each trainee to achieve the competency and meet the criteria. (See Figure 3.)

Subject matter competency. One of the major goals of instruction requires that a body of knowledge be transmitted. In order to achieve this objective, content knowledge must be assimilated into the teacher's cognitive structure. The traditional method by which the teacher trainee acquires this knowledge has been through formal lecture courses outside the school of education. The present proposal suggests that, with effective development of performance criteria, a variety of instructional modes may be utilized to meet the criteria. Content knowledge that is central to subject matter competency may be effectively acquired through closed-circuit television broadcasts, programed instruction including extensive usage of computer-aided instruction, independent study, and seminars, as well as formal lectures.

Presentation competency. The possession of adequate content knowledge is a necessary but not sufficient condition for effective teaching. The teacher must acquire appropriate behavioral skills in order to translate the content knowledge into a teachable form. Learning theories have suggested various conditions under which the acquisition of knowledge takes place most effectively. The technical skills approach to teacher training translates these principles of learning into principles of

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teaching. Examples of technical skills which have already been developed and are particularly relevant to the presentation of content include: set induction, closure, clarity of communication, repetition, and use of examples.

Again we recognize that a variety of possible instructional experiences exist which can provide the teacher trainee with the necessary mastery in presentation skills. Micro-teaching is a particularly effective technique for this purpose. Alternative experiences include classroom observation, viewing of videotape models, and tutoring. In addition, this program emphasizes utilizing portable videotape technology as a means of individualizing instruction. We are currently using videotape as:

1. A powerful means of providing feedback to teachers on their performance in the micro-teaching and regular classroom setting
2. A research tool for the analysis of teaching behavior
3. A means of developing a library of models for training purposes.

**Professional decision-making competency.** The teacher training model presented here presumes that one of the most crucial aspects of teaching is that of professional decision making. The teacher is the decision maker in the classroom. In order to meet his instructional objectives, the teacher must utilize knowledge and skills from all three performance criteria areas—content, behavioral, and humanistic. He must decide what material is to be taught, how it should be taught, and what techniques should be employed. He must further consider the very important personal and stylistic variables which might affect the outcomes of his instruction. In other words, the teacher must consider a myriad of factors whenever he makes major decisions affecting instruction. The greater the teacher's content competency and the more presentation competency he has, the more alternatives he has at his disposal in meeting his instructional objectives. But having content mastery and presentation mastery are not enough. The teacher must also be sensitive to the humanistic, psychological, and sociological variables that affect instruction. By constructing performance criteria in the content, behavioral, and humanistic areas and by formulating instructional experiences by which these criteria can be met, the teacher-trainee is provided with the prerequisite skills and knowledge necessary to make classroom decisions.

In addition to possessing skills and knowledge, the teacher-trainee must have practice in facing the situations that require these decisions. The kinds of activities which allow for this practice include: classroom simulation experiences that require teachers to face, analyze, and solve problems similar to those faced in the classroom; micro-teaching experiences; observational experiences (both live and using videotape); small-group work; and student teaching.

A further unique opportunity to afford trainees practice in professional decision making is currently under consideration at the University of Massachusetts. We are investigating the possibility of staffing the elementary laboratory school as much as possible with teacher-trainees. A few master teachers will direct the operations but the major instructional duties will be handled by groups of student teachers. The major responsibility for the instructional program will certainly confront the student teachers with the kinds of situations that require very real integration of subject matter, presentation, and decision-making competencies.

A strong familiarization with relevant concepts in psychological and sociological theory is continually integrated into the teacher-trainee's educational experience. Moreover, performance criteria in these areas are designated with a major emphasis on practical field experiences and supervised independent research projects as a supplement to formal course work.

**Differential Training for Differential Staffing**

Central to the study of the organization of educational programs is the consideration of the role of the teacher in a professional staff. Up to the present and probably for some years to come, we have been preparing teachers for the egg-carton school. This model presupposes that all teachers are the same and are, in effect, interchangeable parts. This is particularly true on the elementary level. More diverse scheduling alternatives will necessitate a different kind of teacher. Now, instead of denying individual differences, they will be rewarded and recognized. No longer will teacher training by necessity have to turn out jacks-of-all-trades and masters-of-few.
At present, a freshly certified, and sometimes provisionally certified elementary teacher can replace a teacher of 35 years' experience. The new teacher is expected to do exactly the same work as the experienced teacher, but for a notably lower salary. At present, too, the promotion system generally leads the teacher away from the students into counseling, administration, or higher education. Furthermore, a brilliant and enthusiastic teacher receives generally the same rewards from the community as the teacher in the next room who is bored and incompetent. Obviously, we need a new model.

The current model of the teacher role originated in the nineteenth century in the normal schools and now needs considerable reexamination. Today, the teacher's job is much more complex, and teachers are much better prepared than their normal school counterparts. Nonetheless, we limp along with an undifferentiated staff, reminiscent of the medical profession at the turn of the century, when the family doctor was responsible for the full range of medical services without nurses, laboratory technicians, or specialists to whom he could turn for advice and aid.

The training of teachers today should not be even remotely similar to that of a century ago. Instead of training all candidates alike, we should begin training individuals for specific responsibilities of professional staffs. The position a candidate is trained for should depend upon both his career goals and his abilities. By abandoning the concept of all teachers as interchangeable parts, we can bring about better and more specialized training by focusing on specific roles.

This concept of differentiated training for differentiated staffing also recognizes that some very important future educational roles do not yet exist in the public schools. Thus, an important component of the program should be training for flexibility and innovation until such a time as these roles will exist. By training teachers for differentiated roles, we will produce people who will become innovators and change agents in the organizational systems of the public schools.

*What This Means to the Principal*

The new trends in teacher preparation and staffing patterns which we have suggested here have obvious implications for the role and responsibilities of elementary school principals. Implicit in constructing a program that is based on performance criteria is the notion that pre-service and in-service training are really continuous. That is, certification is granted after an acceptable minimum competency is acquired. However, professional advancement is contingent upon extending competency to include more advanced levels of performance and new skills deemed necessary as knowledge about teaching and learning increases. Thus, in-service training becomes an integral and, it is to be hoped, a regular part of every teacher's professional responsibility. With advanced scheduling and staffing techniques, it is even possible to release teachers during the school day for in-service training. Regular and systematic experiences of the type suggested for pre-service teacher training would result in a much greater yield than present occasional seminars and institutes. As performance criteria become refined, the principal will become liberated from the ambiguity and subjectivity that pervades present selection and evaluation procedures. The level of competency of any prospective or present teacher will be more easily evaluated and the supervision process will automatically evolve from being purely evaluative to truly diagnostic. Tenure and promotion decisions will be based upon the acquisition of clearly specified performances which may be acquired through a variety of experiences in a variety of settings rather than for so many years of service or course units.

As the principal becomes liberated from traditional responsibilities, the new perspectives we have proposed offer him great new challenges and demands. Tomorrow's teachers will be innovation-oriented and will expect and require a flexible setting in which innovation is stimulated, accepted, and rewarded. The principal's role will thus shift from disciplinarian and evaluator toward organizer, director, and facilitator. In a sense, he will be the clinical professorial link between the teacher training institution, the school, the community, and the teacher. As teacher educators, we are counting heavily upon the principal as the major influence in providing the environment in which the creative and diligent teacher can flourish and advance. It is clear that only through the combined and sustained efforts of teacher educators and imaginative administrators can we realize the exciting potential inherent in the new perspectives in teacher education.