The growing dissatisfaction with present approaches to teacher education, the availability of increasingly analytic tools in teacher education, and the demand for greater accountability in education generally have given rise to the concept of performance-based criteria for teacher certification. Central to the question of performance-based certification is the issue of whether performance beyond the knowledge level should be defined in terms of teaching behavior, or some combination thereof. Issues that arise in relation to either of these criteria include means of determining desired outcomes, methods of demonstrating and measuring these outcomes, and the relationship between the criteria and the teacher training program. As one moves closer to the ideal of criteria based on the products of teacher behavior, the development of training programs and certification procedures necessarily become more complex. (RT)
ALTERNATIVE STRATEGIES AND FOCI FOR TEACHER EDUCATION

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As teacher education enters a new decade it finds itself undergoing one of its most critical reviews. Some of the factors that have precipitated such close analysis are of a kind that have tended to "push" toward change:

1. the apparent inability of our public educational system to do that which it has been commissioned to do for large segments of our population—witness the national concern over inability to read, lack of vocational preparation and in-school dropouts;

2. the increasing concern on the part of school officials with the inability of beginning teachers to meet fully the expectations of a district, and the fact that it requires a district to in essence subsidize one or two years of "on-the-job" training for new teachers;

3. the increasing concern on the part of school administrators with the financial burden of supervising student teachers;

4. the growing demand by the teaching profession for self-regulation and a central voice in matters of certification and preparatory program planning;

5. the increasingly frequent charge by students that teacher education programs lack "relevancy", and the increasing suspicion on the part of both students and teachers of teacher education programs that are staffed by a college faculty who rarely see the inside of elementary or secondary classrooms; and,

6. the general demand for accountability that is appearing throughout education.

Other factors have tended to "pull" the profession towards change. These include:

1. the programs within the Bureau of Educational Personnel Development U.S. Office of Education, that are designed to reform the educational system—witness the TTT Program, the Educational Leadership Training Program, the Protocol and Training Complex Programs;

2. the efforts of the National Center for Research and Development in Education (formerly the Bureau of Research), U.S. Office of
Education, to reshape teacher education through support of the Elementary Teacher Education Models program;

3. the efforts of AACTE, with OE support, to provide new directions for Teacher Education—witness their support of the preparation of the book *Teachers for the Real World*, their sponsoring of a series of nation-wide conferences to disseminate the work of the Elementary Models Program, and the assumption of responsibility for taking to the nation as a whole that which emerges from the Texas Performance Based Teacher Education Project;

4. revised standards recommended for Teacher Education and approved by the National Council for Accreditation of Teacher Education in January of 1970;

5. the availability of new patterns of education that have been tried and tested in the public schools, for example, differentiated staffing patterns, the individualization of instruction, team teaching; and,

6. the leadership being shown by the Teacher Corps in its move to make all Teacher Corps programs performance-based, field centered and personalized.

In combination these various factors have triggered more self-analysis, more searching for new directions, more confusion and uncertainty—and more excitement and hopefulness—than has been seen in teacher education for a long while. It has also provided greater clarity as to the options available to teacher education in its search for new directions.

The purpose of this paper is to spell out some of these alternatives.

**Alternative Strategies**

Two broad strategies for the origin and operation of teacher education programs are currently in completion: that which can be called an experience based strategy and that which is being called a performance based strategy. Most teacher education programs in operation today can be considered as experience based, for by-in-large they involve a specified number of courses or course hours in specified areas of study and a
"student teaching experience." The 1970 Standards and Practices Statement\(^1\) recommends course work in the area of general studies, content of the teaching specialty, humanistic and behavioral studies, teaching and learning theory with laboratory and clinical experience, and a "practicum" experience.

All such specifications are simply classes of experience in which prospective teachers are to engage. They do not specify that which is to be taken from such experience. Put in another way, they do not specify what prospective teachers need to know or be able to do or be able to accomplish in order to become certified. Programs designed on the basis of such specifications are not performance based except so far as the requirement of a particular grade point average in courses taken can be considered a performance measure. Nor are they representative of an accountability model, for they are not accountable for anything other than providing a particular set of experiences!

Performance based programs differ from those that are experience based in that the outcomes expected to derive from them are specified. Operationally this means that the knowledge, skills, attitudes, sensitivities, competencies, etc. that prospective teachers are expected to have upon completion of a teacher education program are specified, and the indicators acceptable as evidence of the realization of those outcomes are made public. Performance based programs do not deny the significance of experience, but they openly recognize and treat experience as a means

\(^1\) Recommended Standards for Teacher Education. The American Association for Colleges of Teacher Education, One Dupont Circle, Washington, D. C., March, 1970.
rather than as an end. They treat experience as a variable to be manipulated in the realization of given ends, rather than as an end in itself. By so doing performance based programs are open to continuous change on the basis of feedback as to the success they are having in realizing the ends that they are committed to accomplish. By clearly specifying the ends for which they are to be held responsible performance based programs can be held accountable in the fullest sense of the term.

The historic concern with institutional resources as a basis for accreditation, for example, the academic preparation of faculty, their teaching experience, their scholarly performance, the "quality" of students admitted to a program, library facilities, etc. (see pp. 7-12 of the 1970 Standards for Teacher Education), is even further from an accountability model than is an experience based approach. It is also further from a performance based model. While there is some logic to such an approach, that is, in order to provide the experiences needed to bring about the outcomes desired a sound resource base must exist, the provision of such a base in no way assures the realization of the outcomes desired. Consequently, while performance based programs must be deeply concerned with the resources that they can bring to the task they face, assessing a program's resource base becomes critical only when the outcomes expected from that program are not being met.

In terms of their relationship to an accountability model resource based, experience based and performance based strategies in teacher education can be conceptualized as follows:

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<table>
<thead>
<tr>
<th>Resource Based</th>
<th>Experience Based</th>
<th>Performance Based</th>
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Assessing the desirability of moving to a performance based model of operation within teacher education, the designers of such programs must decide upon the focus they are to take. In board terms performance based programs can assume any one, or any combination, of three foci: knowledge, skill or the ability to carry out the tasks that need to be performed within a particular school setting.

Historically, teacher education programs have focused heavily upon knowledge as the primary basis for certification. Courses within the discipline that constitutes one's teaching speciality, in the liberal arts, in teaching methods, human learning, child development, etc. have become standard requirements throughout teacher education. Often they represent the only requirements for certification, or one semester student teaching experience. The basic assumption underlying such an approach to teacher education is that knowledge of subject matter, teaching methods, childrens' learning, etc.--as measured by course grades or more refined performance measures--coupled with a brief testing of the ability to apply what is known in a student teaching situation and a subjective judgment as to the acceptability of a particular student to the teaching profession, is an acceptable basis for predicting the success of a prospective teacher. The reverse assumption is also applied: there is no need to systematically gather evidence as to the ability of a prospective teacher to behave in specified ways, or of his ability to carry out the functions for which he will be responsible within a school once he is certified. Schematically, such an assumption can be illustrated as follows:
While such an assumption is becoming less and less acceptable to many in the profession, it is still acceptable to some. Accordingly, some teacher education programs can focus only at the knowledge level and can be performance based— if knowledge outcomes are specified and the indicators to be used as evidence of the realization of those outcomes are made public. Performance based programs are not dependent upon the focus of performance criteria.

As indicated above, an increasing number of persons in the profession are unwilling to accept the assumption that because one "knows" something he can necessarily apply it. Or, put in other terms, an increasing number of persons in the profession are becoming uncomfortable with the magnitude of inference between knowing and doing, and are asking for evidence that prospective teachers can do that which is expected of them as well as know that which has been specified for them. The move to focus upon what a prospective teacher can do as well as what he knows rests on four interrelated assumptions:

1. knowing, and the ability to apply that which is known, are two different matters, and the certification of teachers should focus as much upon that which a prospective teacher is able to do as it does upon that which he knows;

2. the criteria for assessing that which a prospective teacher can do should be as stringent, as systematically derived, and as explicitly stated as the criteria for assessing that which he knows;

3. the assessment of both that which is known and that which can be done must be carried out and described systematically; and,
4. when a prospective teacher has demonstrated that he knows and can do that which is expected of him, and only then, will he be granted certification.

Accepting the reasonableness of such assumptions there is still the problem of deciding what is meant operationally by a prospective teacher "being able to do". As interpreted by most teacher education programs that have moved beyond knowledge as a basis for certification, being able to do has meant being able to perform specified teaching behaviors. Such a focus parallels closely the emergence of the study of teaching behavior as a subject for research, and with it the translation of the categories of behavior used in research into training systems to be mastered by preservice or inservice teachers, or to be used by supervising teachers. The arguments for adopting teaching behaviors as a basis for certification are roughly as follows:

1. The reasonableness or logic of focusing upon what a teacher does instead of what he knows, believes, or feels, since what he does is a reflection of what he knows or believes or feels;

2. Since it is a teacher's behavior that is the primary determinant of teacher influence, it is important that prospective teachers be able to behave in ways that are desirable;

3. The research that has been done on teacher behavior has laid out categories of behavior that are observable, measurable, and relatively easily mastered; and,

4. Because such a focus has a good deal of common sense about it, and because it permits systematic measurement, it provides one means for meeting the requirement of accountability in teacher education.

Schematically, these assumptions can be illustrated as follows:

| Knowledge of Subject Areas That Relate to Teaching | is prerequisite to | Behaviors Used By Teachers | that are prerequisite to | Performing the Tasks Required When Teaching |

A program derived from such assumptions will have two foci: knowledge and teaching behavior. If it is to be a performance based program it will have to make explicit the knowledge and teaching behaviors that prospective teachers will have to demonstrate, and the indicators acceptable as evidence of their realization.

While a teacher education program that incorporates both a knowledge and a teaching behavior focus satisfies most persons in the profession at this point in time there are some who point out that such a program still involves a great deal of inference making. Their argument is that simply because a prospective teacher is able to behave in certain ways is no assurance that he will be able to perform the tasks confronted in an ongoing educational setting, and that teacher education programs should therefore adopt still another focus, namely, the requirement that prospective teachers demonstrate that they can perform critical instructional and non-instructional tasks before they are certified. The rationale behind such a point of view is the one to one relationship it represents between performance prior to certification and performance subsequent to it. If a teacher is to be accountable for bringing about specified classes of learner outcomes or non-instructional outcomes subsequent to certification, it would seem reasonable to require that prospective teachers demonstrate that they can bring about such outcomes prior to certification. There are a number of advantages to such a position:
1. it represents or provides an absolute criterion of teaching effectiveness, and thereby meets the ultimate test of program (and teacher) accountability;

2. while doing so, it accommodates individual differences in teaching performance or style in that it allows for wide variation in the means of achieving the outcomes for which teachers will be held responsible once they take a job;

3. it allows for the fact that at this point in time we are not at all clear about the specific teaching behaviors that bring about specified outcomes in pupils, or the specific behaviors that bring about selected non-instructional outcomes, but it does require that effective behaviors and/or instructional programs be developed and utilized;

4. it forces the entire educational system, as well as teacher education, to be clear about the goals or objectives of education, and to become clear about the means for the realization of those objectives; and,

5. it takes much of the guesswork out of hiring new teachers, for each teacher would have a dossier which summarizes in detail what he can or cannot do at the time he receives certification.

If pressed to defend the position on the basis of education not being clear about its goals or objectives, or not being clear about how the means by which the objectives that it is clear about are to be realized, the answer is simply "then that's a task that education must get on with, and a teacher education program so designed will contribute to that task."

What would a performance based teacher education program look like that had as its focus all three performance levels? What would indicators of successful performance at the teaching task level look like? These and other questions that are critical to the designer of performance based programs are spelled out in the instructional module prepared for the Teacher Corp (from which this paper was adapted) and in the report on the feasibility of implementing the ComField model on a state-wide basis in Oregon.3

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The Problem of Language

In talking about resource based vs. experience based vs. performance based teacher education, and alternative foci within performance based programs, a language has to be created which permits description, discrimination, etc. As yet such a language has not been agreed upon. The suggestions that follow are offered as a means of moving toward that end.

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<th>Resource Based Programs</th>
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<th>Performance Based Programs</th>
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Performance criteria are

Knowledge Referenced

Skill Referenced

Task Referenced

People who meet the performance

Knowledgeable

Skillful

Competent

Some Questions that Accompany
Alternation Choices as to Strategy and Foci

A wide range of questions arise in relation to the development, implementation and operation of performance based teacher education programs, for they impose a set of demands or constraints that are considerably different than those imposed by experience based programs. The problem of measurement, program accountability, shifting from a course - credit - time dependent - normative evaluation mode to a learning module -credit - time free - criterion evaluation mode are cases in point. Because of space limitations these kinds of problems will not be dealt with here. Proposals relative to the solution of such problems will be found in the Phase I and II reports from the elementary models projects. In the pages which follow only questions which bear upon
certification will be raised (although these obviously bear upon questions of program implementation). These will be treated separately for programs which focus primarily at the knowledge level, for programs which focus on both knowledge and skill, and for programs which focus upon all three levels of performance criteria, that is, knowledge, skills and tasks.

Questions That Derive From a Primary Focus on Knowledge As a Basis for Certification

1. What knowledge should prospective teachers demonstrate in order to be certified? Who is to determine these? The teacher education community? The schools? The community? The State Department of Education? What role should students have in determining such outcomes?

2. What would indicators of the successful mastery of knowledge outcomes look like? Behavioral objectives? Who would identify such indicators? Who would apply them to the assessment of student performance?

3. How much variation in knowledge outcomes would be permitted across students? Across or within areas of concentration? How much variation in criteria on a given outcome? Would all students be expected to perform to the same degree of mastery on those outcomes they hold in common?

4. Is there any reason for having a field centered program when performance criteria focus only on knowledge?

5. How does one justify the omission of skill and task referenced criteria in such a program?

Implications That Derive From a Focus on Knowledge and Skill as a Basis for Certification

The addition of skill referenced performance criteria complicates the certification issue considerably. Not only must all of the questions outlined above be confronted, but the following as well:

1. What classes of teaching behavior are prospective teachers to be able to demonstrate? And who is to determine what these classes of behavior are to be? The teacher education community?
The State Department of Education? The professional education associations? The citizens within a community, county or state? What role should the students of teaching have in the identification of such behaviors?

2. What will the "effective performance of specified teaching behaviors" look like? That is, what will the criteria be for the successful performance of a given teaching behavior? Who will determine these criteria? How will a behavior be assessed to determine if it meets these criteria? And who will do the assessing?

3. In what settings will the behavior be demonstrated? In "film simulated" classroom settings? In "micro-teaching" situations where children are brought to an experimental classroom or laboratory? With small groups of children in ongoing classroom situations? With entire classrooms of children?

4. In how many settings should a given class of teaching behavior be demonstrated, that is, if a student is preparing to teach at the elementary level should he demonstrate a given teaching behavior at all grade levels? For differing kinds or groupings of students within a sample of grade levels? In some or all of these settings on different occasions?

5. What variation in the performance of a given teaching behavior, or in the selection of teaching behaviors to be demonstrated, is acceptable across students? Are all students in a given program expected to perform to the same criterion level on the same set of teaching behaviors? If not, who is to determine what variance is acceptable?

6. What is to be the relationship between the performance of knowledge and skill outcomes? Will demonstration of a given level of mastery be required for all? Or will the demonstration of a given teaching behavior supersede or be able to take the place of given classes of knowledge or given sets of attitudes?

7. How are teacher education programs to be structured and operated when there is as much emphasis on demonstrated teaching behavior as there is upon the mastery of knowledge? Is there any way to carry out a skill referenced teacher education program without access to a field setting?

Implications That Derive From a Commitment to Task Referenced Performance Criteria, as Well as Knowledge and Skill, as a Basis for Certification

The addition of the performance of teaching tasks to the list of outcomes to be demonstrated by students prior to certification increases
program complexity immensely. In addition to a host of parallel issues that accompany the performance of teaching tasks, all of the issues that need to be dealt with in implementing a knowledge and skill referenced program must also be confronted. Also, all three performance foci have to be articulated. When considering this level of complexity, and when one adds the fact that the issues to be dealt with in task referenced criteria are more difficult to resolve than they are at the knowledge and skill levels, program complexity seems to increase geometrically.

By defining the successful performance of teaching tasks as the ability to bring about the outcomes expected to result from the completion of those tasks, the following questions are immediately confronted when planning a task referenced program:

1. What are the instructional tasks (pupil outcomes) to be realized? What are the non-instructional tasks (classroom management and instructional support outcomes) to be realized?

2. Who is to determine what these outcomes should be? If the answer is a "coalition of institutions and agencies, with strong community representation" then one must determine specifically who is to be represented in the coalition and how such representation is to be made. Also clarity will have to be given to the exact procedures to be followed in arriving at the specification of the instructional and non-instructional outcomes to be realized.

3. What will the "successful realization of an instructional or non-instructional outcome" look like? Obviously, the demonstration of the ability to bring about given pupil outcomes would mean that success would be measured in terms of pupil behavior, for example, that a pupil or set of pupils can in fact read at a given criterion level or are in fact more considerate of the feelings of others. Similarly, the assessment of success in the realization of non-instructional outcomes would require that evidence be obtained, for example, that a reasonable level of discipline and order can be maintained, that instructional materials developed are in fact productive of pupil outcomes, or that working with parents has in fact been successful. Given such a focus to assessment, the question still remains: what are the measures of success in the realization of such outcomes going to look like?
children differ success in getting a child or group of children to read will look different for different children or different groups of children. So too will success in classroom management, the development of curriculum materials, or working with parents: success must always be measured against the situation to be managed, the kinds of materials to be developed, the objectives to be realized by those materials, the nature of the parents being worked with, etc. Since success cannot, therefore, be normative or standardized, it means operationally that success must always be situation specific. Given such a point of view, what should be meant operationally by certification standards?

4. As in the case of teaching behaviors, how many times and with what kinds of children must prospective teachers demonstrate that they can in fact bring about given classes of outcomes? Must they demonstrate that they can bring about a given outcome for all grade levels within an elementary school if they are planning to become elementary teachers? Must they demonstrate that they can bring about such an outcome for first or third or fifth grade children, but in a variety of school settings? Must they demonstrate that they can bring about a given outcome for differing groups of children, or different individual children within a single classroom setting? And how many outcomes must be demonstrated in order to meet the certification requirements?

5. What variation in outcome demonstration can be permitted across students within a given institution, or across institutions within a given state? Can students vary in number of outcomes demonstrated? Can they vary in the criteria of success to be applied to a given outcome, depending upon the nature of the pupils being taught or the context in which teaching is occurring? To what extent does commitment to elementary or secondary education lead to differences in certification requirements? To what extent does specialization within elementary or secondary, or student preferences within a given specialization at the elementary or secondary level, permit differences in certification standards to arise?

Concluding Comment

The growing dissatisfaction with present approaches to teacher education, the availability of increasingly analytic tools in teacher education, and the demand for greater accountability in education generally have given rise to the concept of "performance based criteria" for
teacher certification. In general terms, performance based certification asks that the criteria for certification, whether those criteria are knowledge and/or behavior and/or the products of behavior be made explicit, and that students of teaching be held accountable in relation to those criteria if they are to become certified.

Central to the question of performance based certification is the issue of whether performance beyond the knowledge level should be defined in terms of teaching behaviors, the products of teaching behavior, or some combination thereof. On philosophic as well as practical grounds the question is real, and in the author's judgment of utmost significance to education and teacher education in the decades to come.

The purpose of the present paper has been to raise some of the questions that surround the issue, build the case for both positions in relation to the issue, and spell out some of the related issues that need to be resolved depending upon the position taken. The bias of the author is toward certification criteria that focus upon the products of a teacher's behavior, rather than a teacher's behavior per se, for the products that derive from teaching are after all that which education is ultimately about. It is also reasonably safe to assume that these are also the criteria by which teachers and the teaching profession will be held accountable in the future.

Whether the profession is ready to take such a stand is yet to be seen. The fact that the public is ready to take such a stand has already been seen.