This critique is concerned with the validity of three basic assumptions underlying the performance-based teacher education program. These assumptions are 1) The teaching act is the sum of performances into which it is analyzed. 2) The performance unit is a matter of indifference, i.e., the number and character of the performance unit can vary according to the program. 3) The criterion for the product is demonstrated competence in the selected set of training performances. Reasons for questioning the assumptions are based on a brief overview of the didactic, heuristic, and philotic teaching methods. The need for theory and the value of apprentice training are reviewed in order to obtain a full perspective of the problem. Performance-based teacher education will probably produce better "didactic technicians." A program in which laboratory work, clinical teaching, and internship are used to illuminate, exemplify, and utilize theory is suggested in order to produce a highly professional trained teacher. (MJM)
A CRITIQUE OF PERFORMANCE-BASED TEACHER EDUCATION

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Preface

The American Association of Colleges for Teacher Education is pleased to publish this paper as one of a series sponsored by its Committee on Performance-Based Teacher Education. The series is designed to expand the knowledge base about issues, problems, and prospects regarding performance-based teacher education as identified in the first publication of the series on the state of the art.1

Whereas the latter is a declaration for which the Committee accepts full responsibility, publication of this paper (and the others in the PBTE Series) does not imply Association or Committee endorsement of the views expressed. It is believed, however, that the experience and expertise of these individual authors, as reflected in their writings, are such that their ideas are fruitful additions to the continuing dialogue concerning performance-based teacher education.

In this paper, the author analyzes performance-based teacher education in relation to three teaching styles: the didactic, heuristic, and philetic. This analysis is an important contribution to the literature on PBTE.

AACTE acknowledges with appreciation the role of the Bureau of Educational Personnel Development of the U. S. Office of Education in the PBTE Project. Its financial support as well as its professional stimulation are major contributions to the Committee’s work. The Association acknowledges also the contribution of members of the Committee who served as readers of this paper and of members of the Project staff who assisted in its publication. Special recognition is due J. W. Maucker, chairman of the Committee, and David R. Krathwohl, member of the Committee, for their contributions to the development of the PBTE Series of papers.

Edward C. Pomeroy, Executive Director, AACTE

Karl Massanari, Associate Director, AACTE, and Director of AACTE’s Performance-Based Teacher Education Project

INTRODUCTORY NOTE

One critic of the first draft of this paper observed, "... one can create massive straw men and destroy them with dispatch if one has a need to demonstrate that he is the protector of his people and that his position is unassailable." I confess that the bit about the "unassailable position" eludes me, especially since the arguments I advance in this paper are there for anyone who is so minded to assail. But the other remarks are clear enough. The critic seems to be saying that my analysis of the causes of the PBTE push by AACTE and others is a false one—that I cited the attacks on teacher education programs not because they occurred but because I wanted to protect the professors of education and their programs. However, the official statement of the PBTF project as mounted by AACTE\(^1\) explains the interest in this movement in terms not very different from my own. This document is a frank admission that the PBTE is a response to social pressures, to criticism of existing programs. It is, therefore, not unfair to "explain" some of the proposals as an attempt to cope with certain societal conditions, and not solely in terms of some scientifically established body of fact and principle. As to my need to demonstrate that I am the "protector of his people," I must report that I have no people to protect, and those who need protection, I am afraid, need it more from their friends than from their enemies.

Harry S. Broudy

\(^1\) See notes, page 16.
**Contents**

<table>
<thead>
<tr>
<th>Section</th>
<th>Pages</th>
</tr>
</thead>
<tbody>
<tr>
<td>Preface</td>
<td>iii</td>
</tr>
<tr>
<td>Introductory Note</td>
<td>iv</td>
</tr>
<tr>
<td>Section I</td>
<td>1</td>
</tr>
<tr>
<td>Didactics, Heuristics, and Philetics</td>
<td>5</td>
</tr>
<tr>
<td>Section II</td>
<td>7</td>
</tr>
<tr>
<td>Is Theory Necessary?</td>
<td>7</td>
</tr>
<tr>
<td>Section III</td>
<td>11</td>
</tr>
<tr>
<td>Apprentice Training - Pro or Con?</td>
<td>12</td>
</tr>
<tr>
<td>Notes</td>
<td>16</td>
</tr>
<tr>
<td>The Texas Teacher Center Project</td>
<td>18</td>
</tr>
<tr>
<td>The American Association of Colleges for Teacher Education</td>
<td>19</td>
</tr>
<tr>
<td>Proposed Future Publications In the PBTE Series</td>
<td>20</td>
</tr>
<tr>
<td>AACTE Performance-Based Teacher Education Project Committee</td>
<td>21</td>
</tr>
<tr>
<td>Publication Order Form for PBTE Papers</td>
<td>23</td>
</tr>
</tbody>
</table>
A CRITIQUE OF PERFORMANCE-BASED TEACHER EDUCATION

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I

The performance-based approach to teacher education (PBTE) had its origin presumably in the dissatisfaction with programs existing in teachers colleges and colleges of education. The dissatisfaction is a fairly old story; the fires of criticism fanned by Bestor, Koerner, Rickover, the Council for Basic Education, and Conant in the late 50's and early 60's leaped higher than ever when fuelled by the troubles of urban schools in the late 60's. The public was told that teachers oppressed and murdered children (at least in spirit), and that the public school, like God, was dead. Throughout the decade the villain remained the same--the mindless teacher allegedly produced by mindless education professors at mindless schools of education.
The cause of the failure of teacher education was identified by some reformers as the gap between theory and practice. A program made up largely of academic studies, a few courses in professional education, and capped by student teaching, did not guarantee orderly classrooms in which ghetto children learned to read. A new bold motto was proposed: "By their fruits ye shall know them." The new approach would evaluate and guarantee the product, not the input which was supposed to produce the product; in other words, the teacher trainers would have to face up to the demand for accountability.

How would this be done? First of all, by acknowledging that there was a real world quite different from that for which teachers were being trained: the "real" world of the inner urban school rather than the schools of suburbia deluxe. Next, one would contrast what was going on in the classroom with the textbook prescriptions of what was supposed to go on. The exigencies of the real classroom would reveal the fantasies of methods and theory courses. Finally, teacher training would be geared directly to what teachers did or promised to do or somebody wanted done in real classrooms. Just as in the task-oriented curricula of an earlier day schools were urged to teach only what pupils could use, so the new teacher-training curriculum would contain only what the teacher was to do. And what he was to do would not be left to plausible conjecture but would be made explicit in advance.

Thus the Elam\textsuperscript{1} essay says that there now appears to be general agreement that a teacher education program is performance-based if:

Competencies (knowledge, skills, behaviors) to be demonstrated by the student are derived from explicit conceptions of teacher roles, stated so as to make possible assessment of a student's behavior in relation to specific competencies, and made public in advance. (p.6)

Furthermore, the assessment of the student's competence uses his performance as the primary source of evidence although it "takes into account" evidence of the student's knowledge relevant to planning for, analyzing, interpreting, or evaluating situations or behavior . . . . (p. 7)

The gap between theory and practice would be eliminated (a) by getting rid of theory altogether or (b) by reducing it to only what was needed to perfect the practice. To accomplish these reforms, the PBTE proposes to analyze teaching into a set of operations or tasks. The prospective teacher would then be trained to reach "competence" and certified in each of the tasks. He would then be ready to cope with whatever might be encountered in the schools of the real world,

\textsuperscript{1}See notes, page 16.
including victims of race discrimination, poverty, social injustice, and tax rebellions.

The assumptions underlying the PBTE approach seem to be as follows:

1. The teaching act is the sum of performances into which it is analyzed.

2. The performance unit is a matter of indifference, i.e., the number and character of the performance units can vary from one program to another.

3. The criterion for the "product" is demonstrated competence in the selected set of training performances.

It is to the tenability of these assumptions and the consequences of basing teacher education upon them that this paper is addressed.

I shall devote little space to the assumption that in teaching the whole is merely the sum of the parts. This is a notoriously inadequate description of any human action, let alone one so complex as teaching. Teaching can, of course, be thought of as broken down into parts, but as a concrete action it is guided at every moment by a sense of its total pattern. This pattern—in swimming, reading, classifying, judging—integrates the analyzed constituents into a meaningful functional sequence, not merely a mechanically additive one. We are told, at least by some psychologists, that after the pattern has been sensed or felt or understood, the details can be perfected separately, but until the pattern has been discerned, drilling on the separate parts yields disappointing results.

It would seem, therefore, that either the PBTE mistakenly assumes teaching to be a mechanical addition of discrete performances, or that performance units must be equated with the whole teaching act, or segments of it that are large enough to be functional wholes in themselves. On the first alternative the PBTE gives up analysis altogether; on the second, it analyzes the teaching act into functional patterns. The second alternative is the one PBTE seems to want to defend. If so, how small must such units be in order to exploit the benefits of discreteness, definiteness, identifiability, and measurability? For example, how small a segment must "explanation" or "definition" be to qualify as a unit that can be described in advance and unambiguously identified as a performance?

This takes us to the second assumption: what shall count as a performance? The term can cover as simple an episode as ringing the school bell or writing a lesson on the chalk board and operations as abstruse as explaining the proof of the binomial theorem or the principle of oxidation and reduction. Are there agreed-upon classifications of and criteria for the scope and cognitive level of performance units in analyzing teaching for teacher education? Or is this simply a matter of preference?
The importance of this question lies in the fact that the definiteness, and therewith the testability which is overtly or covertly claimed for the PBTE, relies on slicing up the teaching act into small, easily identifiable, behavior sequences. However, when the PBTE is accused of reducing teaching to such bits, the retort is that no sensible PBTE would think of doing such a thing; that performance is to be taken broadly to include such abstract and complex operations as diagnosis of reading difficulties and mistakes in logic; of conducting class discussions on social issues. But insofar as this is so, what becomes of the definiteness of both the task and of the criterion for successful performance of it? And without this ease of task identification, what becomes of the presumed advantages of the PBTE over conventional programs?

Furthermore, if there is no wide agreement as to the task-sets to be used as targets for the training of the teacher, what assurance is there that school systems can employ teachers trained on different task-sets? How are certifying agencies to judge highly diversified task-sets? To which set of tasks shall textbooks and other instructional materials be calibrated? The practicability of the analytical approach depends heavily on general agreement as to what constitutes a relevant unit. In production assembly lines such agreement is the rule. How common is it in the analysis of teaching?*

One is led to suspect, therefore, that the popularity of the PBTE may well rest on the vagueness which surrounds the term "performance." But why do we not have a wide consensus as to the way teaching should be analyzed? Why, after nearly a half century of very active and expensive research into the nature of learning, teaching, and traits of the good teacher, are we still piling up monographs which do little but demonstrate the scholarly competence of the researchers? Why, after all this effort, do we still lack consensus on the criteria of good teaching? Why are we unable to test the "product" of teacher training curricula as industry tests its product, and as we are being urged— with no lack of threats—to do? In this field of inquiry, mountainous labors have produced puny mice, so that one recent well-known summary of research had to conclude: "There are no clear conclusions."2

This is not the place to rehearse this research; summaries are available. The point is that the teaching-learning transaction can be viewed from any one or more of an indefinite, if not infinite, number of

*Since highly individualized and personalized instruction is one of the advantages claimed for PBTE, the uniformity of the units apparently is of little importance, but elsewhere we are told that the instruction is "modularized" so that the individualization is in pacing rather than in the nature of the performance unit. (Elam, pp. 7-8) I do not know what to make of these two claims, but it does seem that some agreement on the performance unit is needed for modularization.
aspects; there is no theoretically plausible way of precluding any one of these aspects or limiting the total number of them, because learning can be in any domain and about any subject in any human situation. Has any approach to the analysis of learning or teaching been ruled out by a crucial experiment? We have a surfeit of analyses, not a paucity. Nothing human is irrelevant to education, including human interest in the non-human. The research merely reflects the endless diversity of the phenomenon itself. Picking one mode of analysis rather than another is not decidable by research—at least it is not so decided.

Another reason for the futility of the search for definitive teacher behavior is that although teaching behavior can be discussed apart from learning results—teaching as a "product"—it is almost never so judged. There is no more consensus on the kinds of learnings that teaching ought to achieve than on the methods for achieving them, because discussions of education are a mixture of assertions about the good life, the good society, the success routes of an epoch, the infirmities of individuals and their children, of societies and their institutions. Some talk about education has to do with schooling, much more does not. The attempt to reduce this welter of talk to overt performances that a teacher should be able to execute on demand is another naive try at ignoring the organismic nature of human experience and therewith of learning.

We must sympathize with educators who would like, for once in their lives, to be able to point to a tangible product of their efforts, no matter what that product might be. And clearly not all aspects of schooling are equally resistant to useful analysis. There is a type of teaching which lends itself to the statement of explicit objectives (not necessarily behavioral ones always), and to demand explicit criteria for their attainment is more defensible for this kind of teaching than some others. Yet even here the explicitness refers primarily to content and logical structure rather than to the use of the learned materials by the pupil. As I shall indicate later in this paper, the way a body of knowledge is learned is not necessarily identical with the way it is used in a nonschool task.

**Didactics, Heuristics, and Philetics**

I shall not attempt to add another sophisticated analysis of teaching to the already crowded list of taxonomies. There is, however, a fairly simple familiar distinction that many have made among styles of teaching, viz., the didactic, heuristic, and philetic, which may help us see where PBTE has its best chance of success and the greatest risk of failure. Didactics refers to the impartation of knowledge by the teacher to the pupil; heuristics refers to the effort to help the pupil discover for himself either the contents of a body of knowledge or the methods of arriving at such knowledge and assessing it; philetics is merely a Greekish name for love or securing rapport with pupils or, as the current jargon has it, "relating to pupils."
Performance-based programs can accommodate didactics, which aims at more or less rote mastery of a repertoire of explicitly formulated knowledge and skill. Heuristic and philetic teaching do not lend themselves to the precise analysis, specification, and evaluation which is the presumed glory of the PBTE. Apropos of which, one might remind the namers of teaching machines that Plato and Socrates were exemplars of heuristics, not didactics.

When a fairly reliable measure of learning is available—as it is in didactics—we can take a Skinnerian position and say, "Given teacher performance P, there will ensue pupil performance S," and we can perhaps ignore (for heaven alone knows what concomitant learnings take place) whatever intervenes between P and S in the minds and hearts of pupils, teachers, parents, and school boards. This is the tough line adopted by the proponents of behavioral objectives, educational contractors and contractees, and the directors of the budget, local, state, and national. Such toughness makes no sense in heuristic and philetic teaching, where learnings are insights and transformations of attitude for which unambiguous behavioral indices are hard to find, inasmuch as tolerance of ambiguity and lack of structure is an avowed outcome of philetics. What behavior, for example, shall we regard as criterial for a pupil's insight into his hostility to the teacher?

Success in heuristic and philetic teaching cannot be judged by pre-specified appropriate pupil behavior because such behavior—even when we can identify it—is not manifested on demand or at a specific time. Critical thinking, the use of the imagination, warm feeling toward peers, achievement of identity cannot be inferred from one segment of behavior used as a test pattern. And what pattern shall we use as a test? Indeed, the vulnerability of general education to attack lies in the very fact that many of its benefits do not appear until fairly late in life. Our speech and reading habits, a thousand attitudes, our interests often represent the tacit functioning of explicit learning inputs made during school and college, but which we can no longer recall. This may help to explain why correlations between academic achievement and success in life are so low. The academic grades measured learning of items that have since been largely forgotten; functioning now are the residual conceptual and affective schemata, which were never tested on examinations. Nor need it be added that the life outcomes we claim for heuristic and philetic teaching are from the first contaminated by noninstructional variables, which we are never able to control adequately in our research or schooling.

The paper thus far has been giving some reasons for questioning the assumptions that (1) the teaching act can be equated with a specified set of performances and (2) that the nature and scope of a "performance" is a matter of indifference. I come now to the assumption that PBTE gives us a way of evaluating the "product" by demonstrating competence in a preselected set of performances. I shall argue that if teaching competence is judged as a product, certain consequences for teacher education would follow, and that some of these consequences PBTE advocates would not relish.
Aristotle remarked that,

With a view to action experience seems in no respect inferior to art, and we even see men of experience succeeding more than those who have theory without experience. The reason is that experience is knowledge of individuals, art of universals, and actions and productions are all concerned with the individual. . . . But yet we think that knowledge and understanding belong to art rather than to experience, and we suppose artists to be wiser than men of experience. . . . and this because the former know the cause, but the latter do not. For men of experience know that the thing is so, but do not know why, while the others know the "why" and the cause.6

If we translate art into "professional practitioner" and the man of experience as the experienced craftsman, then this passage just about sums up the larger problem to which this paper is addressed. The question is whether the performance-based approach to teacher preparation is a commitment to producing men of experience only, i.e., competent craftsmen, or whether the performance approach is compatible with producing what Aristotle refers to as the artist or what we would call the technologist, the practitioner informed by knowledge and understanding.

Is Theory Necessary?

It seems clear that for the teacher to perform a certain task, it is not necessary (whether it is desirable is another matter) that he be able to give a theoretical explanation for the success of the performance. If a teacher is "trained" to praise a pupil every time he displays a desired behavior, then one can expect that the desired behavior will accrue with increasing probability. Does the teacher have to know the theory of positive reinforcement in order to use it? Ordinary observation and some recent systematic studies confirm Aristotle's contention that no such theoretical awareness is necessary. Thus it is asserted that competent performance of paraprofessional duties does not require the common sequence of courses usually prescribed, and presumably many of these courses were in theory.7 Robert J. Menges,8 summarizing a great deal of the research on professional education, concludes that "Those in professional training will learn, whenever they are given opportunity for practice, feedback about that practice, and payoff for performance."* Nothing is said about theory of practice. The same writer adds, "More effective than the abstract and theoretical content usually emphasized

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*I am indebted to Menges for many of the citations on this topic in my references.
may be concrete, self-generated data, and practical experience."
Indeed, we know that some practitioners achieve good results without
being able to describe—let alone explain—how they achieved them.
These considerations lend support to the PBTE thesis that in teacher
education input and output should approach identity, and that the crite-
rion for a teacher's ability to do a given task is having done it. How
often he has done it and over what range is important, but even more
important is whether the practitioner can perform a variation of the
task not previously practiced.

This is a crucial issue for the strategy of teacher preparation be-
cause it is commonly believed that if a practitioner succeeds on an
unpracticed task that belongs to the same species as the practiced one
but different in significant respects from those practiced, the success
is owing to the use of theory to bring the unpracticed task within the
class of the practiced ones. For example, suppose a number of pupils in
the class do not respond to positive reinforcement. The craftsman with-
out theory can only continue to follow the rules and deal with the
exceptions encountered in his experience; the practitioner who knows the
theory, realizing that the reinforcement has ceased to be positively
reinforcing, may devise a form of reinforcement that is different from
the one he had been using. Thus if praise from a teacher who has been
identified with the Establishment and rejected by one's peers does not
act as a positive reinforcement, an understanding of reinforcement
theory can lead to a new ploy—or getting rid of the teacher.

However, the contribution of theory to flexibility and range of
effectiveness is offset by the possibility that once the new solution is
developed by the application of theory, it can be imitated without bene-
fit of the theory or even the capacity to understand the theory. So a
little theory goes a long way; the system as a whole may need it, but
many of those working within the system can dispense with it. Do class-
room teachers need it? If theoretical study of teaching is neither
necessary nor sufficient to guarantee a successful performance, should
it be included at all in the program of teacher preparation?

Aside from logical and practical grounds for doubting the need for
theoretical study in the practice of a calling, there is statistical
evidence that points, or seems to point, in the same direction. One
study declares that college grades bear little or no relationship to any
measures of adult accomplishment.9 Another says that there is little or
no relationship between rated qualities of their work and length of
graduate training, medical school admission scores, or class rank in
physicians over thirty-five years of age.10

Berg found that grades and years of schooling were not predictive
of the quality of work on a variety of blue-and white-collar jobs.11
Even the prestigious curriculum of the Harvard Business School is
debunked as a positive factor in managerial success.12 The acme of
education futility seems to be reached when it is reported that experi-
enced teachers were no more effective in learner achievement than
nonprofessionals. I say the acme because neither experience nor the study of theory (which presumably had been the possession of the professional experienced teacher) made any difference.

Another line of research is no more optimistic about the efficacy of teacher training. When we are told that learning achievement seems to be about the same regardless of the method of teaching, and that the attitudes toward learning and socioeconomic conditions are more important than the conditions of instruction, then what is left of the whole enterprise of teacher education? In any event, the whole business is misguided, because students don't want teachers, not even people to help them learn, but only somebody with whom they can learn together.

The lack of correlation between study of theory and "good" performance on the job argues against the inclusion of theory in the curriculum of teacher training; certainly against any direct instruction in it.

It would certainly eliminate what has been called the foundational studies, sometimes called the humanistic foundations of education, e.g., history and philosophy of education, since they do not even pretend to furnish rules for practice. Mr. Conant articulated this belief and has been echoed by critics of educationists too numerous to mention. The basis of Conant's argument was that theory which is not empirical cannot be applied to practice and therefore does not affect it. Philosophy and history not being empirical theory were, according to Conant, useless.

It would be equally useless now, as it has been up to now, to try to show as some of us have done that foundational studies have an interpretive context-building function rather than a predictive, rule-generating function, and that in teaching, proper context building is of paramount importance. However, since the tests applied to the usefulness of a study (in the research cited above) is a performance of one kind or another, the effect of context building would be hard to trace, even if the effects were expected.

I therefore discount considerably the remarks on page 7 of Elam's paper which says PBTE "takes into account evidence of the student's knowledge relevant to planning for, analyzing, or evaluating situations or behavior." Why this knowledge is necessary if performance is "the primary source of evidence" of the student's competency is not made clear. How is it to be "taken into account?" By reciting the knowledge? But this is rejected ab initio as nonpredictive of the desired behavior. By defending his performance or choice of performance? But is the performance justified on logical or practical grounds? Surely not on logical grounds for the unreliability of such grounds is the raison d'etre of the performance approach. But if justification is by result, no logical justification is necessary. All the student has to do by way of proof is "Try it" and see if "we like it."

However, the arguments against the inclusion of the humanistic foundational studies should count against the current requirements in
general education as well, for most of these are justified by their contribution to context building rather than by their effects on performance. That prospective teachers are required to undertake academic studies is usually justified by the fact that they are going to teach this or that subject, but this is hardly a justification for general or liberal education, most of which is not taught in turn to pupils in the schools.

This leaves us with the desirability of including empirical theory in the teacher education curriculum, because this kind of theory is supposed to be applicable to teaching. But even this sort of theory—on performance criteria of teaching competence—can be omitted, for the reasons already adduced: what little applicable theory exists need not be the possession of all or even of most teachers—on this criterion.

However, PBTE advocates may argue that nothing in the approach precludes the study of theory; the approach merely insists that theory be taught only as needed for competence in a given performance. What PBTE does intend to preclude, I suppose, is the study of theory separately at one time with the hope of applying it at a later time—a sequence that is blamed for the "irrelevance" of the theoretical part of the conventional teacher education program. It is somewhat anomalous that at a time when the abstract intelligence of prospective teachers is higher than it ever has been, their ability to sense the relevance of theory is so meager.

I have tried to show in a general argument that if the correct performance of a task of operation is the sole criterion for competence, then the study of theory at any time is unnecessary. A more concrete analysis may be in order. Let us take, for example, the task of explaining Boyle's law. How much theory and of what kind would a prospective chemistry teacher have to study in order to demonstrate a competent performance? And at what stage in his training would he study it?

Suppose the prospective teacher recited the explanation of Boyle's law verbatim as it was put down in his textbook or the teacher's manual. Suppose he got all his pupils to do likewise. Would not this be proof of performance competence? Suppose, in addition, he could do all the exercises dealing with Boyle's law at the end of the chapter, and suppose most or all of his pupils could do likewise. What more definite and objective evidence of competence could one want—if that is the competence one wants? Yet it is clear that such a performance could be brought off without either the teacher or the pupils "understanding" Boyle's law. (Indeed, many generations learned geometry in precisely this way.) As a matter of fact, a demonstration that would really satisfy us that "explaining" Boyle's law had been performed adequately would not be any specific prescheduled behavior. On the contrary, some sort of dialogue with pupils that allowed us to infer—not observe—that the basic net of concepts we call chemistry is understood by both teacher and pupils is needed. The kinds of examples and counter examples; the way pupil questions are interpreted; the cues used to set the pupil on a more
profitable course; not the performance but the state of mind we call understanding is the crucial "product" here. No single observable behavior is likely to be sufficient proof of such adequacy, for a state of mind is not expressible, except under extraordinary circumstances, in a single observable behavior. Skinner quite rightly doesn't worry about whether his pigeons understand what they are doing so long as they do it. If, however, the way a situation is perceived or interpreted is in any way an important ingredient of teaching or learning, then verbal behavior, or any other covert behavior, may not be sufficient indicators of either successful teaching or learning. In other words, performance-based teaching is in danger of capturing everything except what is most significant in many kinds of learning, viz., significance.*

If this analysis of the situation is correct, where does the teacher get the theory necessary for understanding? Can he get it without formal study of chemistry and physics? Can he pick it up informally? Or when the performance called "explanation of Boyle's law" is the training task, does he go to a handbook to find the necessary concepts? Or does he trot off to a book on the logic of science to get his concepts for "explaining" explanation? Can he explain without defining and inferring? Can he really understand without some familiarity with the principles that guided the experimentation, observations, and the apparatus that resulted in the formulation of Boyle's law? The idea that people can raid theories as they need them, much as they raid encyclopedias for facts, when they need them, betrays a naive misunderstanding of the nature and the mastery of knowledge. Accordingly, if the PBTE insists that it does not exclude theory from its design, it has to make provisions for the study of theory as theory somewhere in the total program. This, it seems to me, is inconsistent with the PBTE approach if taken seriously. Does this conclusion also apply to the sort of theory we call educational theory? I see no reason for believing that it does not.

III

This brings to a close the first part of my critique. It has contended that if performance of a specified task in a predetermined form is the criterion of success in teaching, then current programs of teacher preparation not only are unnecessarily abstract and theoretical, but perhaps otiose altogether.** A program of apprenticeship training

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*I have discussed the general problem of behavioral objectives elsewhere and shall not review the arguments here.21, 22

**At this point I would note that this conclusion does not mean that existing programs are defensible because they do include theory. Indeed, the amount of professional course work in most programs is so small that it would be a miracle if it made any difference. So unspecialized is the preparation that it enjoys the dubious distinction of "preparing" its beneficiaries about as well for a score of occupations other than teaching as it does for teaching.
seems to be the only warranted investment of resources for the training of teachers. But once we arrive at this conclusion, it makes no sense to speak of "professional" teachers as distinct from craftsmen, if professional means theory-guided practice with the practitioner possessing both the how and the why of the practice.

Apprentice Training - Pro or Con?

But suppose that teacher training does become a rule-following form of apprentice training—so what? What is so sacrosanct about professionalism? Has not teacher training always depended on apprenticeship?

At least one answer to these queries is that although most teachers can be devoid of theoretical insight into teaching, the system as a whole cannot do without some theoretically sophisticated personnel. For even if PBTE were to become the paradigm of teacher preparation, it would take theoreticians to devise and rationalize the program. The egalitarianism which is adduced in favor of PBTE can be taken with a bit of salt. The educators engineering the propaganda for PBTE do not regard themselves, I dare say, as mere technical apprentices.

I submit, however, that if individual teachers are to do more than operate as didactical machines, they will have to be adept in context building, i.e., in the interpretive uses of theory. How to defend this assertion is not obvious, but it may be suggested that the failure of schools does not lie entirely in faulty techniques of pedagogy or even of school management. Schools are perpetually in trouble because the country is passing through successive crises very rapidly. Within one decade, Sputnik, the threat of nuclear annihilation, the rediscovery of poverty, civil rights, and urban disintegration have changed the context in which schooling had to take place. Schools cannot change their texts, their plants, their staffs two or three times within a decade. About the only way of adapting the school rapidly enough to the rate of crisis formation is to have within the system—ideally in every classroom—personnel who can interpret what is happening and can translate this interpretation into changes of emphasis both in materials and techniques. It is not the rapidity of technological progress within education that is causing maladaptation, but rather changes in social climate, value hierarchies, and life styles. What sort of theory and theoretical work is needed to do this context building, this interpretation? Can it be introduced ad hoc with each of the performance units chosen to make up the PBTE? Can teachers do without it?

It may well be that for didactic teaching, apprentice training by means of PBTE is sufficient. It may be that the vast bulk of the teaching staff could be made up of paraprofessionals who can do didactics, perform the custodial chores, and nothing more. One can imagine that such paraprofessionals could be turned out with a year or year and a half of performance training, following immediately upon high school graduation. Indeed, as compared to what now passes for the "professionally" trained
teacher, a well-trained paraprofessional might not come off second best. And for such paraprofessionals the PBTE makes sense. It is a mistake, however, to give the impression that PBTE, given equal time, will produce a professional teacher any more than the present smattering of theory and spotty practice can hope to do.

Something remains to be said about the literature cited earlier in the paper on the low correlation between formal professional studies and success on the job.

The common explanation for this low correlation is the lack of intrinsic connection between theoretical studies and success on the job, but there may be another interpretation of the results. Although I am no statistician, it would seem that if one of two variables being correlated had a much lower range of variability than the other, the correlations would be low. With respect to public school teaching, success is highly variable, but academic achievement tends to become standardized—especially as the grade-point average for admission to the program rises. We run into the same difficulty in measuring the effect of the study of educational theory, but for a somewhat different reason: the amount of such study is so small compared to the total four-year curriculum that it would be unlikely that the results would be highly differential. Under such conditions, it is little wonder that the important differences in practice are contributed by nonscholastic factors, the number of which, let alone their nature, is far from being identified.

The current rejection of the theoretical components of professional training betokens a regression to apprenticeship, or, perhaps more accurately, to pseudo-apprenticeship. One may ask: How does a profession come to require formal studies as a condition of entry? In their early stages, law and medicine did not have such requirements, nor did teaching; one gained entry by apprenticeship. But as the demand for practitioners increased, more efficient methods of teaching large numbers of students were sought. Once it became necessary to teach by methods other than imitation, some teachers became reflective about what they did and formalized their practice in rules and theories that justified the rules. Thus rhetoric became a formal discipline because of the need to teach Greek and Latin. Later, law and medicine were formalized for teaching. It was hoped that learning these principles or generalizations would help rationalize the practice of the learner and cut down on the amount of apprenticeship.

In other words, the emergence of professional training or education moves from mastery of individual problematic situations to rules for acting in classes of problematic situations (flexible habit or craftsmanship) to organized knowledge as tested ends and means, professional knowledge, or technology. Just as the sciences and, indeed, all the intellectual disciplines are organized for the pursuit of further knowledge, so professional studies are organized for the study of the practical problems peculiar to a "profession."
Can we return to pre-formalized apprenticeship training? Can we apprentice each prospective teacher to a master teacher and certify the novice when the master teacher is satisfied that the novitiate is over? There are times in reading the schemes for the bypassing of formal programs for teacher preparation when one is tempted to believe that this is precisely what the innovators do have in mind. Sometimes it seems as if even this much "training" is regarded as unnecessary—that experience in the community or in Vista or in the Peace Corps is itself enough to certify competence in teaching. Sometimes it sounds as if love of children were a sufficient prerequisite.

However, no sooner does an innovation that purports to dispense with formal training become well publicized than a scheme for making the innovation available to large numbers of trainees is invented. How is the scheme made generalizable? By formalizing it, of course. That is why so many of the new proposals for teacher training are better characterized as pseudo-apprenticeship, or pre-packaged apprenticeship. This, of course, does not de-theorize the program, because the results of theory are already built into the program, but it does de-professionalize the trainee, because he does not have to master the inbuilt theory.

I shall close this paper with a few observations on some of the consequences of giving the false impression that PBTE will produce a professional teacher, for, if my analysis is correct, it cannot provide the necessary theory unless it gives up all claims to distinctiveness. And without distinctiveness, what will become of its polemical thrust? I believe PBTE, if it sticks to its principles, probably can turn out better didactical technicians than the standard programs do and probably more economically. And as between good technicians and pseudo-professionals, I would choose the technicians.

Unfortunately, the public, school administrators, and prospective teachers suffer from the illusion that teachers are now being trained to professional levels of competence and should be operating on those levels. Hence the bitterness about the failure of the schools and the resentment of teachers against their compensation and status. It is as if we talked about the failure of medicine to heal when most of the practitioners had the theoretical understanding of a practical nurse. Some of the millions upon millions of dollars we have sunk into making ourselves and the public believe that we can staff our school system with the pedagogical equivalent of practical nurses (with a college degree) and have them act as physicians might have gone into training real physicians. I am afraid that PBTE, if it goes down this road, will be just another way of evading the task we have never seriously undertaken—to turn out a genuinely professional trained teacher.

The alternative to skimpy theory poorly integrated with practice is not a flight from theory to performance as such, but a program in which laboratory work, clinical teaching—after the model of medicine—and internship are used to illuminate, exemplify, and utilize theory. We shall have to recognize once and for all that there is no royal, easy
shortcut to this or any other form of excellence. We may not be will-

ing to pay what it would take to educate 3,000,000 teachers to the
genuinely professional level; perhaps ten to fifteen percent of the
teaching staff is all we can expect to reach this level, but no useful
purpose is served by making it seem as if there were no difference
between the man of experience and the man of art.
Notes


3Gage, N. L., "Can Science Contribute to the Art of Teaching?" Phi Delta Kappan. 1968, 49, 399-403.


The Texas Teacher Center Project

The AACTE Committee on Performance-Based Teacher Education serves as the national Component of the Texas Teacher Center Project. This Project was initiated in July, 1970, through a grant to the Texas Education Agency from the Bureau of Educational Personnel Development, USOE. The Project was initially funded under the Trainers of Teacher Trainers (TTT) Program and the national component was subcontracted by the Texas Education Agency to AACTE.

One of the original thrusts of the Texas Teacher Center Project was to conceptualize and field test performance-based teacher education programs in pilot situations and contribute to a statewide effort to move teacher certification to a performance base. By the inclusion of the national component in the Project, the Texas Project made it possible for all efforts in the nation related to performance-based teacher education to gain national visibility. More important, it gave to the nation a central forum where continuous study and further clarification of the performance-based movement might take place.

While the Texas Teacher Center Project is of particular interest to AACTE's Performance-Based Teacher Education Committee, the services of the Committee are available, within its resources, to all states, colleges and universities, and groups concerned with the improvement of preparation programs for school personnel.
The American Association of Colleges for Teacher Education

The American Association of Colleges for Teacher Education is a national voluntary association of colleges and universities organized to improve the quality of instructional programs of teacher education. All types of four-year institutions for higher education are represented in the present membership. These include private and church-related liberal arts colleges, state teachers colleges, state colleges, state universities, private and church-related universities, and municipal universities. The teacher education programs offered by member institutions are varied. One theme dominates AACTE activities -- the dedication to ever-improving quality in the education of teachers.

AACTE carries out its program through the voluntary services of representatives from member institutions, a full-time professional staff at the Headquarters Office, and continuing commissions and ad hoc task forces. Projects and activities are developed to implement Association objectives. The Annual Meeting, held in February, considers current issues in teacher education and Association business as well as the development of acquaintances within the membership. Biennially, the AACTE sponsors a week-long School for Executives which provides an opportunity for concentrated professional attention to specific problems concerned with institutional teacher education programs. An important program of publications supplements the AACTE meetings and committee work. By means of the BULLETIN the Association serves as a clearinghouse of information concerning the education of teachers. As a member of the Associated Organizations for Teacher Education (AOCTE), the AACTE works in a coordinated effort to improve the education of teachers. Through the Advisory Council of the AOCTE, the cooperating groups are represented on the Board of Directors of the AACTE. A Consultative Service assists member institutions in working with specific teacher education problems.

The Association is a constituent member of the National Council for Accreditation of Teacher Education (NCATE) and as such provides valuable institutional backing for the Council's accrediting program. The AACTE provides important financial support for NCATE. Member institutions that are accredited do not pay a separate yearly accrediting fee, inasmuch as this is covered by the Association's yearly contribution to the NCATE.
Proposed Future Publications In the PBTE Series

- A description and analysis of seventeen performance-based teacher education programs by Iris Elfenbein, Teachers College, Columbia University, New York.

- A scenario of how performance-based teacher education programs might look in the future by Asahel Woodruff, University of Utah.

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- Two papers on the implications of operating performance-based teacher education programs in minority group settings: one by Joseph Durham, Howard University, and the other by Rupert Trujillo, New Mexico State University.

- Management of performance-based teacher education programs by Charles Johnson, University of Georgia

- Alternative curricular designs for performance-based teacher education programs by Bruce Joyce, Teachers College, Columbia University.

The series will be available for distribution in the near future. Communication should be addressed to Karl Massanari, director, AACTE PBTE Project, Suite #610, One Dupont Circle, Washington, D. C. 20036.
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