

A CAUTIONARY APPRAISAL OF CBTE¹

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When asked to address this meeting on competence - based teacher education in a cautionary-- if not critical-- spirit, I was puzzled for two reasons: vocational education in general and the preparation of vocational teachers in particular, it seems to me, has always prided itself on being competence-based. It has been recommended as a wholesome alternative to academic education, which notoriously has been vague about competence. Vocational education is consistently prescribed as the cure for the lack of interest of the non-bookish student in the conventional conceptual and linguistic curriculum of the schools. The 1974 Gallup poll on the schools confirms this. It would seem, therefore, that a movement to make vocational education competence-based smacks of carrying coals to Newcastle or teaching one's grandmother to suck eggs. But no less puzzling is why vocational teacher educators should entertain doubts or reservations about a movement, of which they have been the steadfast advocates and successful exemplar.

Surely vocational education does not need the promotional assistance of the competence-based slogan. To an outsider, at least, students at the secondary and post-secondary levels are anxious to get into some form of vocational preparation, and it is my impression that there is no oversupply of teachers in the vocational fields. Indeed, colleges of liberal arts are casting about--some desperately--for ways in which the standard college studies in the arts and humanities could be linked into some form of career preparation.

I then voiced timid suspicion that perhaps a critique of the competence-based movement might be part of the familiar ritual of professional organizations, especially those in education, to have the "other" side of an issue presented, even though there is no intention of converting the membership. Being open to criticism is one of our organizational virtues. However, I was assured that my doubts on all the aforementioned counts were groundless, and that some of you were really concerned about the meanings and consequences of this movement for vocational teacher education. I think you should be and in large part because the values of the competence approach that have been achieved in vocational education may very well be diluted and trivialized by the current CBTE/PBTE bandwagon.

There is no doubt that CBTE has potential advantages. An Advisory Report by the New Hampshire Council for Teacher Education issued in March, 1974² lists the following, which I have summarized:

1. The attempts to define and behavioralize goals will help teacher education institutions to clarify and justify their priorities and eliminate overlapping components of their programs.

2. Attempts to define essential teaching competencies should lead to greater analysis and possibly better understanding of the teaching process; this may lead to the discovery of new instructional methods.
3. Specification of goals in terms of behavior should help the student and the public see what the educational program hopes to achieve and to evaluate these efforts.
4. More attention would be directed to the relation of theory to practice by the emphasis on "clinical" experience.³

These advantages, however, are no more than one would expect from a common sense effort to clarify the mission of an educational program. There is nothing new about writing objectives and goals or devising lesson plans in which procedures are set forth and sequenced. Nor is evaluation in terms of these goals a novel doctrine or practice. What then gives the movement its drive? What has been added that makes it distinctive and so appealing to accrediting bodies and to legislators?

The new element, I suggest, is the hypothesis that all teaching and learning can be organized and evaluated on the model long familiar in the training of technicians. Roughly, it calls for breaking down a complex operation into component simpler sequences, and practicing each component to some criterion of quality specified in advance. This approach was very successful in many aspects of military training, and I am told that it has had no less success in many forms of industrial and business training, as well as in the technical components of many professional curricula.

However, this approach is "new" and radical when advocated for all phases of elementary and secondary schooling and for the training of teachers. It challenges two basic assumptions of traditional schooling: one, that although instruction may be directed toward a pre-specified goal, e. g., the doing of long division or reading or selling dry goods, the pupil learns as a whole person and the teacher teaches as a whole person; two, that the teaching-learning act cannot be analyzed without remainder into observable performances $P_a + P_b + P_c + P_n$. If it should turn out that these assumptions are correct, CBTE taken seriously and applied rigorously could be a mischievous bandwagon indeed.

First of all, and as a general preliminary caution, one might suggest examining the connotations of the term "competence-based." Logically it makes no sense, because so far as I know no program of instruction is deliberately incompetence-based. The term makes sense only if achieved-competence-based programs are contrasted with promised-competence-based programs. In an achieved-competence-based program the learner culminates the program by performing the task that has been taught. For example, an achieved-competence-based swimming program is completed by the pupil swimming 50 yards, while a promised-competence-based swimming program might culminate in

the pupil receiving a certificate saying that he has passed the swimming course with a grade of C.

It is this connotation of competence-based that gives the term and the movement their political power; it carries a politely veiled threat that promises of competence will no longer be acceptable for accountability; that only performances as specified in advance will be taken as legal educational tender.

There is also some ambiguity about whose competence is the criterion for judging teacher competence. One school of thought holds that teacher competence is demonstrated if and only if the teacher executes Performances A, B, C, . . . N to the satisfaction of the examiner. Another school of thought argues that the teacher has not demonstrated competence until his pupils have executed specified Performances X, Y, Z, . . . N. Are Performances A, B, C, . . . N the same as X, Y, Z, . . . N or are they the necessary and/or sufficient conditions for X, Y, Z, . . . N? I think you can see why this is a troublesome ambiguity. If the pupil performs X, Y, Z, . . . N, then whether or not the teacher performs or can perform A, B, C, . . . N is irrelevant. If the 14 members of the swimming class or the carpentry class all end up swimming and carpentering, who cares what the teacher did or did not do? If, on the other hand, pupils do not perform X, Y, Z, . . . N, then the teacher having performed A, B, C, . . . N is held to be irrelevant or proof of ineffectiveness. It is only when we have dependable evidence that A, B, C, . . . N and only A, B, C, . . . N produce X, Y, Z, . . . N that we can demonstrate the relevance and efficacy of any set of teacher competences for pupil success. Unfortunately, we have no evidence for such a tight causal relation between teaching and learning behaviors in the ordinary classroom transactions. We cannot identify, let alone control, all the variables that operate in the transaction.

We do approach the ideal model when in an apprenticeship program the pupil is the apprentice doing what the master does as he does. A, B, C, . . . N and X, Y, Z, . . . N do in fact coincide. But as a matter of fact the apprenticeship model is not quite true to the competency-based assumptions, for in imitating the master the apprentice absorbs more than the specified technical skills; he may also absorb or avoid the way the master deals with clients and the members of his family and these are not specified skills. The CBTE approach, on the contrary, operates on the assembly-line model of production, i. e., breaking down a task into smaller and smaller segments and each mastered separately or in modules.

However, if I am not mistaken, vocational education programs and vocational teacher education programs came into being precisely because the apprenticeship system was unable to meet the demand for vocational training. Just as individual tutoring gave way to group instruction, so apprenticeship had to be supplemented by group vocational training. In both fields this development necessitated a shift from performance-based programs to promise-based programs. In other words we looked for teaching behaviors of a certain sort that were supposed to produce pupil performances in the future of a certain sort, i. e., the A, B, C, . . . N became promises for X, Y, Z, . . . N.

How do these two series differ? Primarily in that teaching behaviors are made up of a content to be transmitted to the pupil or what we have called X, Y, Z, . . . N plus a number of teaching with factors. For example, a teacher does not recite all he has learned or remembers about learning theory when he teaches reading or arithmetic or anything else (unless he happens to be teaching educational psychology). Nor does the teacher make explicit in some overt act his views about the proper relationship between a pupil's interests and troubles and the tactics he uses in the classroom on a given day. His understanding of the culture, of the structure of the school, and of the value system are other items that one almost inevitably teaches with but not necessarily to the pupil.

Now many, if not most of these teaching with factors, cannot be observed in the behavior of the teacher or of the pupil. Sensitivity, intelligence, understanding, interpretation, and many phases of judgment are not characteristics of the observable behavior but of the person who is behaving. We observe that the pupil uses the correct procedures for measuring his materials, but we infer, we do not observe, carefulness. We observe that a teacher listens to the requests or complaints of a pupil, but what characteristic of listening can be observed that makes it patient or sympathetic listening? Much of the deserved ridicule that has greeted the yard-long inventories of behavioral objectives and performance criteria has been occasioned by the attempt to analyze the properties of persons into properties of behavior.

We are led to the conclusion, therefore, that if the conceptual and personal factors that constitute the resources for teaching with are important, the criteria of observability so essential to CBTE may have to be relaxed.

This is not to say that we cannot judge or discover what the teacher teaches with, but merely that we do not find this out by figuring out what physical movements shall count as indubitable signs of the presence or absence of these components and then asking the teacher to display the signs. In brief, where persons are concerned, it takes one to know one, and where the competent teacher is concerned, it also takes one to know one. The attempt to create a laundry list of performances of behaviors that will enable a machine or the layman to make this judgment is about as futile as trying to make a layman into a connoisseur of fine wines by giving him a manual on viniculture.

The more the outcomes of schooling or teacher education are phrased in terms of personal qualities of mind, character, and personality the less applicable the formula $\text{Competence} = P_a + P_b + P_c + P_n$ becomes.

Accordingly, how far vocational teacher education can go with it depends on how broadly it conceives its outcomes to be--both for the teacher and for the pupil. It depends on how much it wants to invest in teaching with as part of the teacher education program, on the one hand, and how broad the outcome envisioned for the pupil, on the other.

Another set of reservations about CBTE has to do with styles of teaching. We can distinguish at least three very different types of teaching: didactics, heuristics, philetics. The first is used to transmit knowledge and to form skill directly. The goals are prespecifiable and the sequences for achieving them can be identified and to a large extent evaluated. The pupil in effect replicates the teaching input on demand, if the didactician is effective.

Heuristic teaching emphasizes discovery by the pupil either by induction from instances, Socratic dialogue, projects, etc. Here neither the goals nor the steps for reaching them can always be prespecified; very often the goals are intellectual operations and not specific products.

Philetic teaching aims at producing satisfying human relationships between teacher and pupil; pupil and pupil; and pupil and his concept of himself. The procedures for such teaching are more like those of psychological counseling than of instruction. The criteria for success in each of these three modes are different; the skills for each vary considerably -- almost radically -- and the chances for an individual teacher being equally talented in each type are small.

If vocational education intends to utilize all three types of teaching, the PBTE approach will be virtually useless for two of them. PBTE almost inevitably puts a premium on didactics and puts heuristics and philetics at a discount. Does vocational education and vocational teacher education need anything other than didactics?

I shall not presume to advise you on these matters of educational policy. It occurs to me, however, that as vocational education becomes more and more popular, either as career education or as training for specific occupations, it will have to take over more and more of two other functions of schooling that are now regarded as the province of general education, viz., civic competence and personal adequacy. Training for work may then have to include the education for how to live with one's work in the community and the family and with oneself, as well as forming the skill of doing one's work. If work should become the organizing core of education, as it so often is of life itself, then vocational education will have to broaden its perspectives; it will not be a matter of occupational training in the morning and work in the school subjects in the afternoon, but rather the implementing of a curriculum that is dictated by the demands of the job but also the life of the worker as a citizen and as a human being. This, in turn, will put a greater strain on the resources of the teacher of vocational education and on those preparing vocational teachers.

The complexity of the task is exacerbated if the job cannot be the center of the individual's life--if it is too routine, too undemanding, too depersonalizing and dehumanizing. This dissatisfaction, I dare say, is most vocal in assembly line jobs, but even in many service areas and professional fields such unhappiness is not wholly absent. Life in a technological society reduces the cognitive strain on the individual because it mass-produces so many goods, ideas, and

values for him. But such a culture makes genuine individuality, personhood, and satisfaction all that much harder to achieve. It can be done, but it takes a disproportionate effort of mind and will to do so. The current depression merely accentuates the lavish bounty that our culture has bestowed on so many of us with a minimum of labor and effort on our part.

In this connection one must also mention the sort of vocational education that provides the greatest flexibility for changes in national employment patterns. Whatever else it means, flexibility means breadth; it means providing the individual with knowledge and attitudes general enough to be adapted to a variety of circumstances. If vocational education takes flexibility of employability seriously, it broadens its goals for the students and their teachers. And as it does so, the difficulty of applying the competence-based approach in any strict sense of that term increases.

Finally, the usefulness of the CBTE depends on how far along and professional line the vocational teacher is expected to go. At one end is the model of the teacher as a technician training others to become technicians. Somewhat further along is the practitioner who has had experience in the occupation and is recruited for teaching. The world, so to speak--is asked to train others. Some of these men and women are not especially interested in schools or schooling; they may be persuaded to come and "do their thing" in the schools as some artists are persuaded to come to the university campus and "do their thing" in the presence of students. That they ever will become involved with curriculum, problems of instruction, guidance, valuation or the general structure of the schools is not a foregone conclusion; some do, many don't. Their home is the industry or the business, not the school, and often they return to it if the school climate turns out to be uncongenial.

The fully professional teacher is a member of the school establishment who may on occasion enjoy a sojourn in industry or business, but whose home is the school. For this type of teacher many aspects of educational theory, history, philosophy are relevant as context builders; necessary for teaching with. For the teacher as technician they are probably unnecessary, and for the teacher recruited from industry they be on the irrelevant side--tuned as he is to the practical considerations of the real world of work.

CBTE, therefore, is not good or bad simpliciter. If vocational teacher education programs are vague as to their goals, if there are overlapping outcomes and duplications, if they cannot make their mission clear to the public or the board of education or to the taxpayer or to the pupil, then CBTE offers an exercise in clarification and self understanding. Presumably those who are pushing the states into mandating such an approach must believe that the vocational teacher education programs suffer from these disabilities, and that those in charge of these programs must be forced to shape up.

The exercise, however, need not go to the extreme of trying to behavioralize every conceivable goal of teaching and learning to the point of trivialization and silliness--not to mention the nausea of those who have to try to write hundred of behavioral objectives.

The trouble arises when the competency--based approach is taken as more than a sensible device for clarification, but is elevated to a theory of instruction and of teacher education, When this is done, it automatically redefines the goals of schooling as well as the methods of instruction so that they will fit into the theory of behavior modification. It then has to withstand the theoretical and practical critiques that have been leveled against it, and it cannot evade those critiques by calling then quibbling or hair-splitting.

However, unlike general education, which must be broad in scope and complex in method, vocational education does have some choice as to breadth of outcome and can justify paths of various widths in its various programs and for various cadres of students.

These special circumstances, it seems to me, enable vocational teacher educators to scrutinize the competence-based drive more objectively and dispassionately than can other teacher education programs and, by dealing with it in this way, can do the whole educational enterprise a great service.

FOOTNOTES

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²PBTE, 3:7, January 1975.

³The Report goes on to list the possible disadvantages some of which will be incorporated in the following discussion.