

## CBTE: WHAT DOES THAT MEAN?

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All over the United States competency-based education programs are being talked about, debated and argued. Questions such as these are at the center of the controversy: What are the necessary and sufficient competencies for teachers to have? Does competency mean ability to perform in a certain way or to produce certain pupil outcomes? Who is to decide on the competencies and their evaluation? What about technical skills?

Answers to these questions may be found in a discussion of three related topics. The first topic is the competency-based education concept itself. A dictionary definition and an examination of inherent program elements will be used to explicate the concept. The next topic is how to get at the pedagogical and technical competencies themselves. Finally, the implementation of competency-based programs, both the problems and promises, will be discussed.

What is CBTE? Webster's New World Dictionary defines competency as the condition or quality of being competent (i. e. sufficient, adequate, or legally qualified). A competency is synonymous with an ability or fitness. This implies that competency-based teacher education (CBTE) would have as its goal the development of certain abilities or fitnesses that are deemed to make a person legally qualified to teach. A definition of this type does not, however, help to distinguish a CBTE program from other current programs which strive to prepare legally qualified teachers. Perhaps a more enlightening way to define CBTE is to look at a list of "Essential Elements" as described in Stanley Elam's Performance-Based Teacher Education: What Is the State of the Art?<sup>1</sup> It may be just as well to side-step the controversy over the use of performance-based vs. competency-based as the most appropriate adjective to describe this movement by simply stating that competency-based will be used in this article because it is more broadly definable and therefore allows adequacy.<sup>2,3</sup> What follows is the list of Elam's Essential Elements:

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

2. Criteria to be employed in assessing competencies are:
  - 2.1 based upon, and in harmony with, specified competencies,
  - 2.2 explicit in stating expected levels of mastery under specified conditions, and
  - 2.3 made public in advance;
3. Assessment of the student's competency:
  - 3.1 uses his performance as the primary source of evidence
  - 3.2 takes into account evidence of the student's knowledge relevant to planning for, analyzing, interpreting, or evaluating situations or behavior, and
4. The student's rate of progress through the program is determined by time of course completion;
5. The instructional program is intended to facilitate the development and evaluation of the student's achievement of competencies specified. Many of these elements are found in current teacher preparation programs. However, only if they are all found in one program may it be truly called competency-based. This makes the concept of CBTE an evolutionary step in that it draws together many previously conceived innovations and combines them into a new, more flexible structure.<sup>4</sup>

It may be helpful to describe what Elam calls related and desirable characteristics of CBTE programs in order to identify the program components which will be referred to in the rest of this article. The idea of a field-centered program is of primary importance, and since so much emphasis is placed on real life experiences and a realistic conception of the teacher's role, decisions concerning those aspects of the program are shared by people in the field. That is, the decisions about competencies and experiences are shared by a wide variety of people representing diverse groups. This consortium, as it is called, of teachers, community people, and state department of education representatives is a unique feature of CBTE programs. Another outstanding feature of CBTE is the diversity of materials and experiences to which a prospective teacher is exposed. Of course, this involves the efforts of all groups in the design of the instructional program, including student teachers. Inherent in CBTE are reliable and efficient feedback systems both to the individual student and to the managers of the program. This necessitates a comprehensive research component designed to keep the program open and regenerative. Finally, the integration of the various competencies, as Elam indicates, is seen as a matter of "role integration (that) takes

place as the prospective teacher gains an increasing comprehension of teaching problems." This role integration takes place throughout the career of the teacher, not just during preservice preparation, and serves as the most cogent argument for including CBTE as part of inservice and continuing certification programs.<sup>5</sup>

Of course, all the components of a CBTE program are open to criticism. That is basic to any truly dynamic program. Allen Schmieder in the AACTE publication Competency-Based Education: The State of the Scene lists some of the often heard criticism and relevant retorts.<sup>6</sup> The title of a paper by K. Fred Daniels seems to sum it up as well as anything: "Performance-Based Doesn't Mean a Teacher Education Program Is Good -- It Just Means It Is Easier To Tell."<sup>7</sup>

How may the competencies relevant to Agricultural Education be ascertained? In Agricultural Education, as in all other teaching areas, there is a blend of one's technical specialty and teaching area. Concern about the specification of competencies and about proficiency must focus on both. In the larger area of Vocational and Technical Education and more specifically in Agricultural Education there has been some very interesting work done lately. The Cotrell work at the Center for Vocational and Technical Education at the Ohio State University has produced a list of performance elements rated in importance. The rating is in relation to teachers in cooperative secondary programs and to those involved with in-school secondary and post-secondary programs.<sup>8</sup> This list may be used to form a basic core of competencies. The Ely "Survey of Perceived Inservice Needs" developed at Cornell University was derived from the Cotrell work and provides a tool that may be used to arrive at those competencies which are most important to a local consortium.<sup>9</sup> Both of these lists are concerned primarily with teacher behavior which demonstrates school related abilities.<sup>10</sup> On the other hand, work being guided by Professor Art Berkey at Cornell is beginning to get at the technical competencies that one needs to perform particular jobs well.<sup>11</sup> Professor Berkey's work is based on a functions-task analysis which delineates those aspects most important to the proper execution of a task. From the results of his analysis, technical competency statements may be drawn up.

There are a number of problems that have to be faced before a CBTE program can be implemented. There is also great promise in this approach. The problem that looms largest is the specification of competencies and the subsequent evaluation of an individual in relation to them. Every other concern involved with implementing a CBTE program centers around this one. The promise is that we will have, as time goes on, a more and more reliable way to predict which prospective teachers will be most effective.<sup>12</sup>

The management system that has been suggested to facilitate the delineation of competencies and then to co-ordinate the instructional and evaluation systems is the consortium. CBTE, because of its emphasis on the analysis of the teacher's role as the basis of competency specification, places particular importance on the involvement of teachers and administrators, those who know the role of the teacher best. Further, it is in real life settings that a prospective teacher's competence is to be measured.

This, of course, necessitates a strong field-centered orientation. In Agricultural Education there has always been a great deal of interest in the improvement of the teacher preparation programs by both administrators and teachers as well as local community leaders, businessmen, labor leaders and others. There is also a sound student teaching field experience incorporated into current teacher preparation programs by both administrators and teachers as well as local community leaders, businessmen, labor leaders and others. There is also a sound student teaching field experience incorporated in current teacher preparation programs. This active support and established field experience provide a good base for drawing together a consortium and for building an even more experience-oriented program. The objective of an extensive field-centered program is to assure that the prospective teacher will be able to demonstrate competence in a real setting by giving him ample opportunity to develop competency gradually through numerous and varied interactions. Another reason for having a program predominately field-centered is to afford the evaluator an opportunity to see the prospective teacher's performance in many settings which closely approximate actual classroom conditions. As Turner has indicated, there are six criterion levels upon which we may judge the outcomes of a teacher's preparation.<sup>13</sup> Levels 6, 5, and 4 (teacher knowledge and understanding, pedagogical skills as demonstrated under laboratory conditions, and under simplified training conditions) are similar to those which make up the bulk of most current evaluation systems. Level 3 criteria which focus on teacher behavior under actual classroom conditions are like those found in most student teaching evaluation systems. Levels 2 and 1 deal with short term changes in pupil behavior and long range effects on pupil achievement and well-being, respectively. There is very little empirical evidence that tells us which teacher behaviors will measure up to level 1 and 2 criteria. Therefore, competence should be judged primarily by level 3 and 4 criteria. That is, the focus should be on the behavior of the student teacher and its consistency with the behaviors we currently feel are most appropriate and effective. As research and developmental findings bring new insights into the effect of teacher behavior on student outcomes, those behaviors which are found to have a positive influence on desired pupil outcomes should be incorporated into our lists of competencies.

The emphasis of CBTE evaluation is also away from level 5 and 6 criterias. The shift is not complete, but criteria based on knowledge and understanding as well as the demonstration of skills under laboratory conditions are justifiable only if the basis of the criteria can be shown to have a significant influence on the performance of the prospective teacher in more realistic situations. The promise of this emphasis is that beginning teachers will be more effective because their preparation has given them those competencies that are at the heart of the teacher's role.<sup>14, 15, 16</sup>

One other aspect inherent in CBTE is individualization. One way it is manifested is in the amount of time one spends developing a competency. It may be no time at all if a person enters the program with the competency or it may be a year or more if that competency is especially difficult for an individual to master. Evaluation may also be individualized. A person may ask to be evaluated under certain circumstances such as with a particular group of children participating in a lesson. There is ample opportunity for negotiation so that the evaluator feels it is a true test of competence and the student feels it is a fair test. The major problem with individualization of instruction and evaluation is that it makes it necessary for the entire program to be very flexible in both the structure of the learning experiences and the allocation of staff time.<sup>17</sup> Since the common denominator of successful beginning teachers is the ability to "get things under control," a program which is based on the learning style and pace of the individual and the development of realistic competencies will foster the self-confidence a beginning teacher needs to get and keep things under control.

In conclusion, it may be noted that many institutions and state departments of education are moving toward competency-based education.<sup>18</sup> For example, New York State has set February 1, 1979 as the deadline for Vocational Education teacher programs to be fully competency-based.<sup>19</sup> All of the problems and promises may be dismissed as merely part of another educational fad, but to those who take the challenge there will be rewards. There will be the professional satisfaction of having an influence on the quality and nature of the preservice preparation and on initial and continuing certification requirements of members of the profession. There will be the personal satisfaction of being involved in an exciting and significant educational innovation.

#### FOOTNOTES

<sup>1</sup> Stanley, Elam, Performance-Based Teacher Education: What Is the State of the Art?, Washington, D.C.: American Association of Colleges for Teacher Education, 1971.

<sup>2</sup>For further discussion of this point see: Margaret Lindsey, "Performance-Based Teacher Education: Examination of a Slogan," Journal of Teacher Education, Vol. xxiv, No. 3, Fall 1973, p.p. 181-187; and

<sup>3</sup>Allen A. Schmieder, Competency-Based Education: The State of the Scene, Washington, D.C.: American Association of Colleges for Teacher Education, p.p. 2, 51-53, 63.

<sup>4</sup>Elam, op. cit., p. 6.

<sup>5</sup>Ibid., p.p. 9-11.

<sup>6</sup>Schmieder, op. cit., p.p. 25-27.

<sup>7</sup>Ibid., p.p. 8-9.

<sup>8</sup>Calvin J. Cotrell, Shirley A. Chase, and Marilyn J. Molnar, Model Curricula for Vocational and Technical Teacher Education: Report No. IV; A Foundation for Performance-Based Instruction, Columbus, Ohio: The Center for Vocational and Technical Education, 1972. See the other reports in this series (No. 74) for further details of the Cotrell work.

<sup>9</sup>Ron H. Ely, A Resume of the Performance-Based Professional Education Inservice Needs of Secondary Level Occupational Teachers in New York State, Ithaca, New York: Cornell Institute for Occupational Education, 1973.

<sup>10</sup>For example: Cotrell #31-Determine the occupations for which training is to be offered in the vocational education program; #259-Maintain liaison with community . . . organizations; or Ely #47-Present a concept or principle through a demonstration; #100-Uphold acceptable standards of student behavior in occupational classrooms and laboratories.

<sup>11</sup>Arthur L. Berkley, William E. Drake, and James W. Legacy, A Model for Task Analysis in Agribusiness, Ithaca, New York: New York State College of Agriculture and Life Sciences, Cornell University, 1972.

<sup>12</sup>Through a comprehensive research program designed to validate empirically the specified competencies a sound basis for predicting teacher effectiveness will emerge. That is the greatest promise of CBTE.

<sup>13</sup>Elam, op. cit., p.p. 15-16.

<sup>14</sup> For further discussion of the problems of measurement and evaluation see: W. W. Charter, Jr. and John E. Jones, "On the Risk of Appraising Non-Events in Program Evaluation," Educational Researcher, Vol 2, No. 11, November, 1973.

<sup>15</sup> Jack C. Merwin, Performance-Based Teacher Education: Some Measurement and Decision-Making Considerations, Washington, D. C.: American Association of Colleges for Teacher Education, 1973; and

<sup>16</sup> John D. McNeil and W. James Popham, "The Assessment of Teacher Competence," The Second Handbook of Research on Teaching, Robert M. W. Travers, ed., Chicago: Rand McNally and Company, 1973, p. p. 218-244.

<sup>17</sup> Herbert Hite, "The Cost of Performance-Based Teacher Education," Journal of Teacher Education, Vol. xxiv, No. 3, Fall 1973, p. 245.

<sup>18</sup> Schmieder, op. cit., p. p. 10-14.

<sup>19</sup> "Format for the Submission of Teacher Education Program Proposals," Albany, New York: New York State Department of Education, April 18, 1973.