COMPETENCY-BASED teacher education describes a teacher training program in which there are specific competencies to be acquired, with corresponding explicit criteria for assessing these competencies. According to Arends, Masla, and Weber (1971) there are three criteria—knowledge, performance, and product—which are used respectively to assess the student's cognitive understandings, his teaching behaviors, and his teaching effectiveness.¹

This curriculum design for teacher education may well be one of the major transitional forces reshaping professional education training programs in the United States. The design provides the one avenue presently available to implement the increasingly sophisticated technical knowledge that has evolved from the impetus provided by federal funds. The hardware is presently available, and all that remains is the educator's synthesis of this equipment into the curricular design so that the newest developments are balanced equally between the hardware and the software within carefully designed programs.

Even more important is the fact that competency-based teacher education is a vehicle that can provide clearly discernible results. This is a clear response to the public's demand for accountability in education. However, despite their importance, these forces are destined to remain auxiliary to the main emphasis in this concept of teacher education program development, because the primary thrust will derive from the process rather than the product! Not very visible or dramatic, this emphasis is on program design and modification.

The rationale for competency-based teacher education forces educators to take a hard look at what their teaching is designed to accomplish and to review carefully the way they go about accomplishing it; then, based upon the teacher trainee's responses, it compels educators to modify the program to elicit more efficient learning. This process of design, field test, and redesign can only result in improved teacher training, and improved teacher performance.

There are prototypes of competency-based teacher education programs on many campuses in the United States, but with the flux in program development at the College of Education in the University of Houston, the South has a comfortable niche in the van-


* F. Douglas Bowles, Professor of Education, State University College, Oneonta, New York.
guard of these programs. Recently quartered in an innovative, open space concept building, the University of Houston's staff is in the ferment of massive change. With a nucleus of knowledgeable young professors, Robert Houston, Howard Jones, Wilford Weber, and James Cooper, supplemented by senior members of the staff, such as John Creswell and Loye Hollis, who developed a prototype proficiency-based program in mathematics teacher education at Houston, there is a core of experienced personnel to assist with the change process.

The roster of graduate students may very well carry the names of individuals destined to make significant contributions to competency-based programs in the next decade. One cannot say that the students are clustered at the feet of the masters; hard-headed, hardworking action research and development team leaders, yes, but there are no masters of this approach. It is even conceivable that the master may learn from the student.

**Specific Abilities as Terminal Behaviors**

Combining the familiar unit lesson plans of the 1950's with the behavioral objectives that were first emphasized in the later 1960's, competency-based teacher education is a refinement that will permit individualization and personalization of teacher training programs and still provide structure for these programs. This is a radical departure from the program development of the past two decades because the estimates of student performance or the competencies to be measured are specific; therefore, the completion data are criterion referenced. The change from normative measures of student behavior as represented by a letter grade will result in more precision in the measurement of student behavior and will eventually replace the umbrella effect of present education degree descriptors, while simultaneously providing the empirical data base so necessary for valid program modification.

In the competency-based teacher education program, the developer attempts to isolate the specific abilities that appear requisite to effective teaching, then designs instructional packets, described as learning modules, to elicit these specific abilities as terminal behaviors. According to Robert Houston et al. (1971), learning modules include a rationale, a specific objective or set of objectives, a pre-assessment of the learner's abilities to complete the objective(s), activities designed to help the learner meet the objective(s), and, finally, a post-assessment of the learner's competency relative to the objective(s). At one important step within the module, pre-assessment, if the learner is able to demonstrate the competencies listed, he is permitted to bypass the learning module. Thus the emphasis is focused on a demonstrated competency and not upon a timed exposure to a learning setting.

Despite all of these positive characteristics, the module developers still lack a sufficient data base to answer several pertinent questions:

1. What behavior is truly terminal?
2. At what stage of development is the student motivated toward the terminal behavior with maximum effectiveness?
3. Do the learning modules exhibit consequence validity?
4. Can or should a module be developed that is teacher proof?

Many certification specialists, such as Vincent Gazzetta, Director of the New York State Bureau of Certification, are serious about utilizing competencies for teacher certification. Public school administrators will use this same vehicle for a partial solution to the dilemma of accountability and as one of the bases for compensation. Educators may yet see the implementation of salary schedules that reflect an emphasis on the competencies at the entry stage into the profession, followed by a pre-professional or intern stage, and, finally, at a professional or master level of competency; each of these levels to be determined by a set of clearly defined and demonstrable terminal behaviors.

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It is partially because of these benefits and partially because of a belief in the massive technique as an effector of change that the University of Houston’s staff members have thrown all of their resources into the fray. This strategy is not without the insecurities that typically appear whenever the status quo is threatened; but since this rationale for massive change is based upon a systems theory of management and the systems theorists hold that the elements of an organization are interdependent, it is theoretically possible first to identify a major problem, and second, to locate and redesign the interlocking elements to arrive at a solution more efficiently and effectively.

One may further posit that since frustration is an inevitable by-product, it might be better to deal with this reaction at all levels in concert. If this manifestation is episodic in the process, handling it within the system will alleviate the frustration at all levels of the organization simultaneously. Hence, even though members may perceive the organization as literally falling to pieces, this process permits the systems to operate. In this situation, a high degree of frustration becomes a prime motivator for change.

Program development in the College of Education offers no panacea for progress in changing teacher education practices. Retooling during a period of economic stringency is not easy. There are cost data available from several federally funded feasibility studies, but the staff at Houston has not yet completely established local data; there is the credit-fee problem; there are faculty-load concerns, and with the dearth of expertise in CBTE, the University of Houston’s team is constantly on call: their itineraries read like a continental plane schedule. Some staff members on the periphery of all of this activity react with cynicism, some remain inert, and some react with lively jealousy; nevertheless, there is a tremendous outpouring of energy. With 64 students actively engaged in the first semester of an experimental CBTE undergraduate program, the staff of the Teacher Center is striving to develop and prepare learning modules according to self-imposed deadlines. The Sixth Cycle Teacher Corps staff, with approximately 46 master’s candidates enrolled, is resolving everyday exigencies while continuing program development with a commitment to encourage competency-based teacher education.

If a few staff members appear overwhelmed by the complexity of the task, and others do not yet fully ken the historical perspective, this may be a reflection of the marked growth and change effected during Dean Robert Howsam’s administration. To an observer, it is very obvious that competency-based teacher education program development is in high gear at the University. Despite the selective modesty of some faculty members who remain uncertain, even somewhat hesitant, about the college’s role in the future of teacher education development, the majority of the staff members are committed and concerned about whether or not they can handle this massive change. More important, they are concerned about whether they will be ready for the changes to come.

At Houston, there is a sense of urgency in teacher education development. Faculty members know that competency-based teacher education is just one of the necessary changes, and that they must be capable of responding to the urgent demands that will shape education for tomorrow.

### Future ASCD Annual Conferences

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