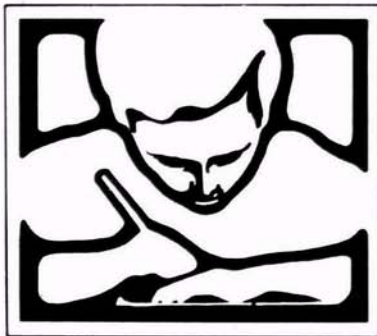


The Concept and Implications of Competency-Based Education

William G. Spady

"Competency-based education . . . could be an exciting and valuable concept. However, in order to be so, educators, policy makers, and the public will have to be willing to entertain some substantial departures from traditional educational assumptions and practices. The following offers a broader view of this concept and some of its important implications for school systems."

Competency-based education (CBE) ranks as one of the most misused and misapplied concepts in American education today. During the past five years, a major ground swell of policy action has emerged in over 30 states imposing some kind of "competency demonstration" as a condition for student promotion or graduation. In all but a few cases, what has come to be called CBE is no more than a testing and remediation program focused on basic literacy and mathematical skills. It misses the point in terms of the meaning and importance of competency in life role activities, what it means to base a program on competencies, and in what respects the term education extends beyond the boundaries of student certification alone. In short, competency-based education, if adequately understood and flexibly applied, could be an exciting and valuable concept. However, in order for it to be so, educators, policy makers, and the public will have to be willing to entertain some substantial departures from traditional educational assumptions and practices. The following offers a broader view of this concept and some of its important implications for school systems.



The Concept of Competency

As noted in an earlier paper (Spady, 1977), I share a viewpoint with many others who have worked with the CBE concept in institutions of higher education that competencies are ". . . indicators of successful performance in life-role activities" (p. 10). Framed in a slightly different way,

competencies involve the ability to create effective results in one's life. According to Block (1978), this means both succeeding in existing social role structures and having the ability to create new roles for oneself in response to changing social conditions. While there are small differences in the implications of these two definitions, their common elements are most important.

First, they suggest that the focus and context of competencies are real life and the various roles we occupy that require such a broad range of individual capabilities. To be competent in a life role (such as breadwinner, consumer, mate, parent, or political citizen) is to create the quality of experience and success you seek in that life role. This means that the curricula developed to facilitate competencies must take as their starting points an assessment of the demands and contingencies associated with major life roles, not the logic and substance of academic subjects. There are, for example, no life roles called language arts, mathematics, or social studies.

Second, life-role success fundamentally requires coping with the everchanging realities of social conditions. The environments, resources, regulations, and individuals that are an integral part of modern day life are often troublesome and continually changing, which suggests that one of the most essential attributes of a generally competent person will be adaptability in the face of difficult and shifting circumstances and demands.

Third, competencies are formed through the highly complex integration and application of

many discrete capacities. These capacities represent the essential building blocks or foundation on which competencies rest. Some of these capacities are, of course, quite apparent and measurable; others are extremely subtle or even invisible to many people. The essential point, however, is that competency requires tapping this reservoir of individual capacities, integrating them in complex ways, and applying them based on the contingencies present in specific social contexts. Competency rarely involves the simple mechanical application of simple cognitive or manual capacities.

Fourth, the integration and application of capacities that underlie competency clearly reflect both the cognitive and manual skills directly supported in most school instruction and a broad repertory of affective capacities, which may, on balance, actually be the attributes that most facilitate life-role success. That is, while knowledge, skills, and concepts are important components of success in all life roles, they do not ensure it. Successful role performance is at least equally facilitated by the attitudes, values, feelings, expectations, motivation, independence, cooperation, endurance, and intuition people possess. Affective capacities cannot be left implicit in a life-role oriented program as they now are in so many schools. In many life situations, these affective capacities may be both "the medium" and an essential component of "the message" itself.

Fifth, competencies ultimately require role performance, not just the acquisition of skills or knowledge of appropriate methods. They are, in other words, reflections of both what one is and what one can do. Competency-oriented programs should, therefore, develop assessment tools that focus on the more qualitative aspects of performance as well as the more concrete demonstrations of cognitive and manual skill tapped by conventional measurement devices.

When taken together these implications represent a major departure from the typical capacity-building orientations of most school programs. Social reality and enlightened projections about life in the twenty-first century become our guides to conceptions of life roles, competencies, curricula, appropriate instructional settings and agents, and assessment tools. The role of segmented school subjects taught in the generally sheltered environment of school buildings will have to be

altered substantially if we choose to foster and assess competency outcomes. Capacities must indeed be developed if competencies are to emerge, but the methods, contexts, and timing of their development could alter significantly if life roles were made a more central vehicle in curriculum and instruction.

The issues on which all of this is focused are the transferability of school learning to life and the extent of the school's responsibilities for fostering the moral and technical socialization of youngsters. Although debates have raged over these two related problems for decades, some of the general domains of agreement will be explored in the following section.

The "Bases" of School Operations

School systems, like all formal organizations, must contend with two competing sets of forces: those focused on system productivity and those that stress maintenance and preservation of the organization. In general, the productivity subsystem of an organization requires adaptability, flexibility, and responsiveness to changing demands and technologies, whereas the maintenance system is concerned with ordering, routinizing, and stabilizing activities and procedures. The challenge to administrators is to manage and support both systems without impairing the impact and effectiveness of either. Given the inherent differences between them, this is an extremely challenging task. (See Spady and Mitchell, 1979.)

When we examine the actual organization and operations of schools more closely, we find elements of these two competing subsystems embedded in classrooms as well as administrative offices. To a large extent, these elements reflect two major bases of organizing school functions and activities: one is time and the other is outcomes (or results). CBE implies a major shift from time as the primary "base" of operations to outcomes (or competencies) as that base, and from vague-referenced standards of accomplishment to more specific criterion-referenced ones.

At present, schooling is time-based. Major procedures, operations, decisions, and opportunities for both staff and students are dictated by the clock, the schedule, and the calendar. Fixed periods of time such as class periods, grading

periods, semesters, and school years impose arbitrary constraints on the ways in which we organize instruction, and when and how often we evaluate and certify student performance. In the time-based system as we know it, time is fixed, students are usually given single opportunities to "pass," and the standards used are usually personal, subjective, variable, and vague. Grades represent a vague and unknown mixture of achievement, ability, motivation, deportment, attendance, "attitude," contextual, and background factors. The high school diploma is merely a certificate of attendance and an indicator of the student's willingness to "satisfy" the particular minimal expectations and standards of a series of teachers. Society's expectations for the year-by-year social promotion of students have reinforced the fixed time basis of schooling, even though we know that the achievement differences among our high school graduates are enormous (and their general standards of social and technical competency are quite disappointing). A time-based system stresses roles rather than goals, emphasizes maintenance rather than productivity, and encourages orientations concerning "having things run smoothly" and "getting through the day" rather than "creating results."

An outcome-based approach to schooling—which is what CBE represents—would reverse the relationships between time and standards. Goals and objectives take on new importance as they are made more explicit, defined in terms of the actual competencies and capacities students will develop and demonstrate, and made the basis of operations and decisions regarding student assessment and movement through the instructional program. In such a system, schooling will no longer be determined by time; instead time is used in more flexible ways, and multiple opportunities for instruction and assessment are provided. This means that much more small-group and individualized instruction is needed to foster student mastery of given outcome goals. In addition, courses, credit, report cards, and standards will be defined on a criterion-referenced basis so that actual levels of skill are known. "Promotion" is not from grade to grade with a total cohort of students at a fixed or final point in time, but a continuous movement through an instructional

program. Courses will be units of content representing levels of mastery, not units of time.

To use the term "competency-based" to describe a major approach to education is to treat the framing and attainment of outcomes as the primary base of school operations. But only a nodding acquaintance with the politics and sociology of schools is sufficient to suggest that there is considerable diversity and disagreement among both educators and segments of the public regarding which outcomes should be given priority in school programs. It is doubtful, therefore, that if schools actually wished to become outcome-based that a sufficient consensus could be obtained in most places regarding the particular outcomes around which they could really organize.

According to Mitchell and Spady (1978) who discuss these competing alternatives in some detail, there are four broad themes that characterize the expectations of educators and the public regarding the contributions schools make to the development and socialization of youngsters capable of entering and participating in a society that is orderly, productive, and attractive to its members. These themes include: (a) nurturing in students a sense of *social responsibility* regarding the consequences of their actions for the welfare of others and the society as a whole; (b) generating and supporting *social integration* among individuals from varying social and cultural groups through direct interaction and participation in collective activities; (c) stimulating and fostering the fullest possible *development* and expression of the individual's physical, affective, and mental capacities; and (d) promoting and certifying the achievement of necessary and important *technical competencies*. Each theme has had a major place in the historical evolution of American education, and each has its visible and vocal contemporary advocates as well.

What is particularly germane to this analysis is that each theme represents an alternative conception of what constitutes "real competency" for individuals, each has the potential for becoming the dominant outcome base for a given school or school system, and each represents an agenda to which every teacher and administrator must be sensitive, irrespective of the pressures imposed by the others. Attention given to one theme often

means overlooking others. Consequently, with staff attention divided in four directions at once, it is often true that none of the outcomes desired in each domain is fully realized. The result is both potential and actual staff vulnerability for failing to meet either someone's or everyone's expectations.

It is also important to note that there are major philosophical differences among the advocates of each major theme that further contribute to policy and operational strain in school systems. For example, to some social responsibility means developing loyalty and respect for social institutions and adjusting one's moral and legal conduct to prevailing rules and norms. For others it means showing sensitivity to others, and being willing to serve and support those in need. Similarly, to some social integration means learning appropriate social roles, fostering a sense of belonging, and appreciating and participating in existing social structures and groups. To others it means exercising leadership and initiative in promoting group cohesion and purpose, or establishing close and significant ties to other individuals or cultural groups.

There are also differences among the advocates of personal development. Some would concentrate on intellectual and physical development, others on affective capacities. Within each group, some would stress "trainable and proven" capacities, others would advocate "discovering" emergent capacities and promoting creative expression. Similarly, some advocates of technical competency are primarily concerned with basic language and mathematical proficiency; others with a broader range of technical skills. Among each of these, some stress the utility and minimum standards of competencies, while others seek high standards of excellence and innovative performance capabilities.

Given the tremendous range of qualitative and quantitative differences sought by various groups in terms of school outcomes, it is not surprising to find most state "CBE" policy initiatives reflecting a "lowest common denominator/basic skill" orientation to required student outcomes. The major exceptions, such as Maryland, Oregon, and Pennsylvania, have emerged largely as the result of strong state board of education/state department of education leadership rather than

legislative mandate. Yet it is these nearly three dozen other "testing bills" that have substantially turned an educational effectiveness issue into a potential accountability nightmare.

Implementing Competency-Based "Education"

To many of its advocates, imposing new performance requirements for high school graduation is an attempt to re-establish "the credibility of the high school diploma." Now that over 90 percent of an age cohort stays in school a full twelve years and "social promotion" within an age-graded system is accepted policy, we have a large proportion of "graduates" today who would have not finished school in previous eras. However, a distressing proportion of these graduates are conspicuously deficient in basic literacy skills as well as in more advanced aspects of development and achievement.

What lies at the heart of this dilemma is not the diploma or social promotion, it is the system of teacher-referenced standards that we use along with time as the basis for establishing grades and Carnegie units of "credit." As noted earlier, the combination of individual subjective judgment, mixed criteria, and floating standards leads to a labelling and credit system that is best described as vague-referenced. That is, the letter or numerical grades dispensed by teachers convey far more symbolic value than actual content. Twelve years of vague-referenced symbols provide one with a transcript and diploma, but not necessarily a good education.

The paradox in all of this, of course, is that employers and college admission officers—the people who need to make selection decisions about graduates based on what they know, can do, and are like—are generally staunch opponents of abandoning the Carnegie unit credit system even though it contributes to the problem of applicants with only paper qualifications. They are "getting stuck" with the same evaluation-certification system they continue to perpetuate by using time and letter grades as the primary criteria for graduation.

There are, of course, alternative approaches to setting and defining standards that could be considered, two of which could be made criterion-referenced rather than vague-referenced. They

are curriculum-referenced and societal-referenced standards.

Curriculum-referenced standards would apply to the acquisition of specific kinds and levels of subject matter mastery. The content and criteria of the standards would be based on the logic and content of the subject, and would be set by experts in each respective field. We could expect the outcomes in such a system to reflect cognitive and psychomotor capacities.

Societal-referenced standards would reflect the judgments of a broader array of citizens regarding the competencies needed to facilitate success in life roles. In this case, the social, political, and economic demands of life would constitute the frame of reference for both curriculum building and standard setting. Mastery of individual capacities could be included among the array of competency standards selected.

The third major alternative, norm-referenced standards, has been the popular choice of nearly every state that has chosen to implement a standardized testing program. Depending on how measurement is actually done and reported, the advantages of norm-referenced testing may be little better than teacher-referenced. In this system, standards are fundamentally comparative and peer-based, and performance in many different knowledge and skill areas is usually reduced to a single numerical score. While you may know that a student scored at the "eighth-grade level" in reading, you may still not know what the student can and cannot read, or what his or her particular strengths and deficiencies may be.

The use of norm-referenced testing to create an accountability system for students will not solve the problems of educational effectiveness that lie within the instructional system. The basic orientation of accountability approaches is to use some reliable form of student performance data as the basis for making judgements and decisions about either students or staff. This often means reward, placement, or promotion decisions. While remediation for "substandard" performers may be required, that remediation generally consists of providing these students with the content and approaches that have not worked for them in the first place. Nearly every example of current state "CBE" policies either declares or presumes that

the existing time-based, age-graded structure of schooling shall remain unchanged.

If the problem was seen as an effectiveness issue, two complex, but more valuable, activities would have to be undertaken. The first is examining and improving the nature of and interrelationship between two major factors that affect instructional effectiveness. One factor is the bearing that school structures—that is, the organizing principles for school activity—have on the techniques, procedures, mechanics, and content affecting student involvement, learning, and performance. The other has to do with the quality and character of expectations and social process that characterize the interaction between staff and students. These factors lie at the heart of school effectiveness and cannot be ignored.

The second activity that needs to be undertaken in order to improve school effectiveness is to create *close articulation* between student assessment and instruction. This means continual diagnosis, monitoring, feedback, and correction of student progress based on regular contact. This does not mean the once-a-year administration of "the big standardized test" that may not correspond with the curriculum the students have been pursuing. It is not clear what we expect these tests to tell us about the levels of student achievement that the teachers who interact with them on a daily basis do not already know. If this information is missing, it is due to the inadequacies of the classroom assessment system, and that is what needs to be strengthened. If this information is available but not used effectively to improve student learning, the fault may lie in our typical use of classroom assessment to manage and control students rather than to manage and improve instruction. Also, in most states where such testing programs have been installed, it is the students who are penalized for program weaknesses by having promotion or diplomas withheld.

In a genuine competency-based program, the danger of poor articulation between assessment and instruction would be averted. CBE is built around the close integration of three essential components: (a) outcome goals; (b) instructional experiences that directly reflect those goals; and (c) assessment devices that represent the operational definition of the goal itself. To build maximum flexibility and responsiveness into such a

program, all three need to be *explicit* (that is, criterion-referenced and clear); be *known* (that is, public and visible—without secrets and surprises); be *agreed upon* by all those with a direct interest in the student's progress; *allow choice* (that is, be framed and developed with several equivalent alternatives to choose from); and be *adaptive*. Being adaptive means to use student performance data as the basis for modifying and improving four major things: (a) the student's subsequent performance, (b) the content and quality of instruction provided, (c) the assessment tools used to measure goal attainment, and (d) the content and sequencing of goals and curricula.

Since there are dangers of such a goals-means educational approach becoming inflexible and mechanistic, care must be taken to create as many choices and as much flexibility as possible. There are, as Spady and Mitchell (1977) point out, two distinctly different conceptions of how a goal-based (or outcome-based) approach such as this might work. One is to prescribe and delimit at the outset both the goals to be pursued and the role opportunities available to students. This has been characterized as the "whips and chains" approach to schooling. The other is to expand both the goal and role choices available, particularly when outcomes are defined in competency terms, and engagement in realistic life-role pursuits is desirable. In a goal-based program, the important and determining principle of operation is *reaching the goal*. The means, locale, resources, agents, time, and number of opportunities given for reaching the goal are open to far greater choice than in a role dominated program in which time and means are often taken more seriously than the outcomes attained.

From this perspective CBE can be fundamentally geared to improving student opportunities in several ways: (a) by dealing with time and opportunities for meeting goals more flexibly and realistically; (b) by articulating goals and the purposes of instruction clearly and openly; (c) by giving a specific content referent to assessment, evaluation, certification, and promotion criteria; and (d) by bringing schoolwork closer to the real factors affecting success and fulfillment in life.

What it does in the process is influence the entire range of accepted school structures and practices including the structure and use of goals and objectives; the meaning and bases of stan-

dards and credit; the definition, organization, and delivery of the curriculum; the criteria and methods of student evaluation, record keeping, and reporting systems; student grouping and promotion practices; the criteria and timing of "graduation"; methods of student supervision and control; role expectations and relationships between staff and students; and staff interdependence and cooperation.

In a phrase, CBE means a continuous progress approach to instruction and certification for all students. As a California school administrator recently remarked, "It makes perfect sense from an educational standpoint, but we'll all be afraid to try it. Instead, we'll keep giving kids standardized tests and ask teachers to grade tougher all twelve years." CBE does, indeed, ask both educators and the public to give up decades of habits and assumptions regarding the structures and methods of schooling, just at the time when accountability looks cheaper and safer than another version of school reform. The "CBE testing movement" has reached bandwagon proportions in just a few years, but CBE in practice may become this century's major nonevent in public education. [L]

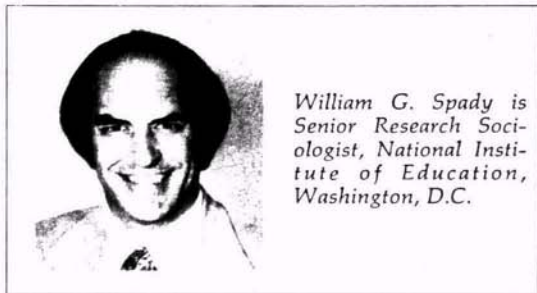
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