This paper defines competency-based teacher education (CBTE) and discusses relevant competencies, some problems and issues, and some assessment strategies. Competencies for all teachers and nine competencies for teachers working in a multicultural setting are listed. Problems discussed include the following: (a) professional educators ignore the problem of ethnic pupils' school achievement; (b) teacher behavior fosters pupil behavior that fulfills the culturally derived expectation; and (c) teachers hold biased stereotypical views of minority pupils. The discussion on assessment strategies includes the following topics: (a) assessment of cognitive and behavioral skills, (b) behavioral assessment strategies, (c) behavioral objectives, (d) instructional strategies on designing a learning environment, and (e) evaluation as a tool for collecting data to optimize the system. The author concludes that training institutions should facilitate an educational policy which promotes the following: (a) conducting scientific analyses of learning tasks and designing teacher functions to maximize the probability of achievement, (b) redesigning teacher function with the CBTE model, (c) instructing teachers in the pros and cons of reinforcement practices, (d) designing internships for teachers, (e) providing instruction on teacher expectancies of minority pupils and the ramifications of teacher behavior, and (f) instructing teachers in the evaluation of pupil performance on a pre-post performance continuum. (PD)
COMPETENCY BASED TEACHER EDUCATION:
TEACHER TRAINING FOR MULTI-CULTURAL EDUCATION

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Introduction

Traditional educational philosophy, methodology, and practices have tended to foster differentials in the achievement of ethnic minority and non-urban minority pupils. Those pupils who are of minority groups and/or low income status have been exposed to learning experiences in the urban classroom which lead to the development of social and cognitive behaviors counterproductive to positive educational achievement. The earliest and most fundamental lesson ethnic minority pupils in American schools learn is that they are second class citizens, the "inevitable" failures in the social and intellectual domains of American life. They are something less than their white, middle or upper-income counterparts. They are outsiders, beyond the mainstream of white, middle American rights, life, and luxury.

These are the unquestioned and dangerous assumptions held by many educators—their products of their social environment and training; assumptions which they take with them into the classroom. It is not difficult to perceive why many ethnic minority pupils learn to become rebellious, or even apathetic, to the educational system. The result, as made clear in the Kerner Report (1968) is that many more black than white students drop out of school, are pushed out, or at least psychologically insularize themselves from their aversive environment and from the defeatist expectations of the educational staff. The Kerner Report advises that in the metropolitan North and West, black students are more than three times as likely as white students to drop out of school by age 16-17. In 1972, the National Education Association reported that in 238 schools in the southern states, more than 33,000 black students have been expelled or suspended from predominately white schools. Even of those minority youngsters who graduate
from ghetto schools, many are unprepared to enter the normal job market, and have great difficulty obtaining employment.

In the urban educational setting, ethnic minority students are typically not reinforced for educational achievement. Their learning experience is one of alienation and the fostering of social and psychological distance from the majority culture which originally institutionalized the concepts and norms of difference and deficiency. The urban school, then, as a learning environment has not provided for the acquisition of competencies by ethnic minority pupils in the competitive marketplace of commerce. If educators are to structure a learning environment which facilitates both the acquisition of academic skills and the development of productive school-related behaviors in ethnic minority pupils, it is imperative that teachers recognize the influence they exert as a stimulus in the classroom.

The teachers' own attitudes and behaviors operate to shape the attitudes and behaviors of the children whom they instruct. This is especially apparent in the early grades where the social influence of peers is not as great as that of the teacher. Research data presented by Becker (1952), MacKennon (1962), Clark (1963), Katz (1964), Gibson (1965) and Rosenthal and Jacobson (1968), clearly indicate that children tend to exhibit those classroom behaviors which they believe their teachers expect. In a variety of school settings, it has been found that academic performance by pupils is importantly affected by teacher expectations. This phenomenon has significant implications for ethnic minority children. As recent research by Leacock (1969) and by Rist (1970) discloses, pupils of low income and/or minority group status are often expected by their teachers to be under-achievers or to be intellectually inferior compared to their majority, middle-income classmates. The researchers found that such negatively evaluated pupils, in fact, tend to be given less instruction, less
access to educational materials and resources, and less reward-directed, supportive behavior by teachers. Such a learning environment is destined to promote failure in pupils who are the object of the negativistic assumptions or expectations. Those pupils who are expected to be essentially uneducable tend to be treated as uneducable and consequently may fail to exhibit those competencies which it was assumed they could not learn. This is hardly surprising when no adequate provision has been made to structure a learning environment which explicitly fosters the acquisition of desired skills, as well as actively encourages pupil achievements by positively supporting and reinforcing the occurrence of appropriate behaviors. Teachers must have confidence in the ability and academic potential of all their pupils. They must carefully examine the conditions under which learning is to take place, and be aware that their own attitudes and behaviors can either help or hinder the pupil's progress in achieving those behavioral competencies which are taken as an index of learning.

Teachers must become more concerned about the differences and similarities between achievements and aspirations of the ethnic minority child and the advantaged majority child. Further, teachers must become more adept in the deliberate design of learning environments that will foster academic growth and achievement within a multi-cultural educational setting. In designing a learning environment, it is essential that the teachers consider the extent to which such an environment is structured to optimize the opportunity for all pupils to become equally educated. It is inadequate merely to provide equal educational opportunities for urban minority and low income pupils and expect them to manifest sudden breakthroughs in academic achievement. It cannot be reasonably assumed that all pupils equally possess the specific, prior learned responses necessary to take advantage of such opportunities. Such an assumption fails to consider that environmental experience may differentially influence the configuration of pupil behavior and progress in school.
To obviate this kind of assumption, teachers need to design a learning environment which is carefully planned to systematically build upon the existing competencies and accomplishments of each individual pupil in a stepwise manner. Such an environment is characterized by stability, derived from a program design explicitly structured and sequenced by the teacher to promote the acquisition and maintenance of cognitive skills and behaviors. Many educators call this system a "performance-based system" or a "competency-based system." In addition, such a learning system can be constructed to foster a variety of task-relevant social behaviors such as attending, writing, asking, answering questions and other participatory responses which are directly related to academic achievement. Classroom behaviors which are incompatible with the learning objectives are, by implication, prevented, reduced or eliminated in order to optimize educational attainments.

Environmental determinants of school-related behaviors are the focal point of competency based teaching technology, for it is the environment which the teacher can control and manipulate in efforts to produce the desirable changes in pupil behaviors that we call learning. The teacher can alter and arrange conditions in the school setting to foster planned educational change. In this sense, the teacher is a manager of the learning environment and must be expert in the practice and use of arranging it to facilitate multi-cultural pupil achievement of productive social and academic competencies relevant to educational objectives. The emphasis here is upon effecting planned behavioral change in the form of desired learning. If teachers fail to adequately plan and program the environment for multi-cultural pupils, learning is left to chance and the results may well be counter-productive to educational achievement.

The Definition of Competency Based Education

Competency based education is defined as a learning environment in which explicit statements of desired competencies and criteria for evaluation are
designed and made public to all participants, e.g. learners, teachers, parents, etc. Competencies are those particular verbal and non-verbal skills, behaviors and attitudes which are held to facilitate the interaction of social, physical, emotional and intellectual growth of learners. Evaluative criteria are threefold: one, cognitive acquisition of concepts, principles, facts, ideas and postulates; two, performance skills in utilizing cognitive materials in teacher planning and performance; and three, product skills - learner growth - used to evaluate teacher performance.

Competency based methods emphasize planning, programming and control with respect to the environmental conditions in which pupils behave and learn. The focus is upon promoting the achievement of educationally relevant behaviors through positive control of the learning environment and its pupil participants. Teacher behaviors, with respect to designing and implementing instructional activities or strategies, are empirically evaluated, that is, tested in terms of the effects they produce. Those strategies that successfully promote educational attainment are selected for individual pupils on the basis of their demonstrated use and merit, not on the basis of what the teacher thinks is appropriate, useful or necessary for a given pupil. In this sense, the formulation and selection of operational strategies applied in the learning environment are based upon objective, scientific analyses of the observed effects of actual pupil behaviors, not on a pre-judged opinion.

The use of a planned learning environment such as above permits educators, as well as researchers, to adequately evaluate the effects of a multi-ethnic school setting on both majority and ethnic minority children. Data which could be acquired from such a situation would indeed be academic achievements as well as psychological correlates of academic achievement. In addition, data could also be acquired about teacher functioning and its contingent nature upon pupil behavior.
In the competency based education model, faulty learning is perceived to be a product of the classroom environment rather than a product of postulated incompetencies and incapacities of a faulty pupil. This construct contrasts with the paradoxical assumption implicit and prevailing in education that the schools cannot educate ethnic minority pupils due to the fixed effects of genetic heritages or early family experiences. The competency based system postulates that learning behavior change may be positively accomplished through exposure to efficient and effective learning environments. Barring severe physiological impairment, no pupil can legitimately be deemed to be limited in what and how much he can learn. Unfortunately, in our present urban school systems it is assumed that the opposite is the case.

The competency based education model, then, does not assume that the educational achievement of pupils is determined by some relatively constant level of abilities, aptitudes and characteristics identified, classified and labeled by tests or perceptions of subjective judgment by the teacher. Rather it suggests that the majority of overt behavior is environmentally determined and subject to change as the environment is changed. Behavior is understood to be experientially learned through interactions with the environment. To say that behavior is determined and fixed by forces beyond the school's influence is contrary to the principal thesis delineating the competency based model of education.

The competency based trained teacher uses behavior management techniques to design an appropriate learning environment and construct relevant learning strategies designed to promote planned educational achievement. Usually the program is intended to promote the acquisition and maintenance of behaviors which result in educational achievement. However, learning activities may also be designed to prevent, minimize or eliminate behaviors incompatible with positive educational achievement. In either instance the objective is the acquisition of a clearly defined category of observable and measurable behavior.
The assumptions underlying the competency based model are based upon empirically validated tenets of social learning. As described by Clark, Evans and Hamerlynch (1972), these tenets hold that:

1. Individual behavior occurs in the context of a social environment and in interaction with the environment.
2. Social behavior is learned in interaction with the environment.
3. Behavior is taught and maintained by the social environment.
4. Social learning is a process of reciprocal influence. Participants interacting in a social system mutually affect each other's behaviors.
5. The reciprocal influencing process may be explicit or implicit, planned or unplanned, but must be considered a factor in social systems.

In accordance with these principles of learning theory, the competency based model perceives individual pupil behavior as being:

1. Exhibited within the context of a social environment called a classroom.
2. Malleable and amenable to change in the context of interaction with the classroom environment.
3. Taught, maintained, reduced or eliminated as a function of interaction with the classroom environment.
4. Reciprocally influenced in form and frequency by those with whom the pupil interacts in the classroom—the teacher and pupils.
5. Continually subject to conscious or unconscious influence by others in the classroom.
Thus the competency based model is centrally concerned with effectuating explicitly defined and carefully planned effects on the learning behavior of pupils in the classroom environment. When, as in the traditional school setting, ethnic minority pupil behaviors are unsystematically changed in the classroom, it is not a competency based program of education.

The latter situation represents one of the most searing indictments against traditional modes of teaching in urban schools in which a significant number of ethnic minority students are frequently labeled "chronic non-achievers" or "unteachable" or "emotionally disturbed." In the traditional models of education, behavior is not perceived to be taught and changed in the classroom, and particularly not by events manifesting in the classroom, but rather to be essentially fixed and determined by factors beyond the realm of the school's (teacher's) influence. But, in fact, as the above-mentioned principles of learning indicate, behavior change occurs as a function of the events which occur within the pupil's social environment. Hence, pupil behaviors are shaped, maintained and/or eliminated through the unconscious, unplanned and unsystematic manipulation of environmental events in the classroom. It has been well documented (Bandura, 1969; Ramp and Hopkins, 1972; Skinner, 1956) that the events or consequences which follow behavior affect future probability of occurrence of such behavior. Desirable or reinforcing outcomes generate behavioral increments. Intervening variables such as the individual's history of reinforcement, differential efficacy of reinforcers, the temporal relationship between the response and reinforcement, importantly influence the form and extent to which behavior is modified. The implication is clear that teachers may shape pupils' responses which are counterproductive to educational achievement or social control in the classroom, but which may, in fact, be consistent with the teacher's own subjective expectations and assumptions about the pupils and/or their ethnic, racial or social referent group.
The teachers' behaviors, then, issuing from their own unconscious biases and beliefs, can effectively contribute to the acquisition of dysfunctional, as well as functional, classroom behaviors by pupils. It is the teacher who by verbal and non-verbal communications prescribes the social, emotional and academic conditions prevailing in the learning environment in which the pupil behaves. The question arises as to how often the teacher rewards "failure" and ignores (or extinguishes) successes. When a teacher places pupils who cannot work addition problems in a lower track and fails to reward them for and promote the accomplishments they do demonstrate, is this teacher not programming the pupils for failure? Since academic skills are representative of a complex of chained responses, if discrete desired responses are not systematically and contingently rewarded, the probability that final performance skills shall be manifested and that new behaviors shall be learned is very low. Learning of teacher negative expectations by pupils, though it may not immediately be recognized, can result in the acquisition of behaviors incompatible with desired learning, and in the reduction or elimination of those behaviors which promote positive educational achievement.

Operating within the context of a competency based model in which desired behaviors are contingently reinforced, teachers have clearly demonstrated that a variety of educationally relevant behaviors are acquired by minority pupils in urban schools. Teachers have shown, for example, that they can efficiently and effectively improve reading, spelling, arithmetic and verbal skills by learners and increase productive social behaviors which foster educational achievement (Ramp and Hopkins, 1972; O'Leary & O'Leary, 1972).

Conversely, traditional teaching models see learning behavior as occurring within the context of a poorly defined mechanism called personality, with differential ability relatively determined and unchangeable. In traditional teaching models the objective of education is essentially reduced to identifying
capacity and ability, and implicitly classifying and labeling such attributes within the context of socioeconomic norms prevailing in the culture. Such a process encourages the allocation of pupils to differentiated "learning" programs or tracks with attendant teacher expectancies for success and failure which socially stratify and prepare the pupils for their role in society. The effects of this frame of reference upon the urban minority pupil are well documented (Green, 1969; Brookover, Gigliotti, Henderson and Schneider, 1973) and need not be further discussed at this point.

Competencies Relevant to all Teachers

The purpose of any planned program in teacher training should be to produce teachers and administrators who manifest skills and behaviors which will result in positive educational achievement for all children. Typically, prior and present day teacher training focus upon educational theory which does not necessarily result in specific teaching competencies other than verbal. Seldom does teacher training focus upon the basic premise that should underlie all theoretical considerations - that all teaching competencies should be defined within the framework of the definition of learning. Learning has been empirically defined as relatively permanent changes in behavior. (Hilgard & Marquis, 1961; Gagne, 1965). Learning, then, is inferred rather than observed, and those behaviors that are defined as learning may be called performance behaviors.

The statements above explicitly lead to the conclusion that those persons who aspire to be teachers must be able to bring about changes in behavior in their pupils in order to postulate that learning has occurred. In addition, those persons who aspire to be teachers must bring about changes in behavior in a specific direction in order to promote desired educational achievement. If teachers are to be change agents, then it follows that they must acquire the skills in changing behavior that exist in the bodies of knowledge - both educational and
psychological - and they must be able to apply those skills in an educational setting.

Traditional teaching methods have been based upon an assumption that children - given an average environment - will learn when they are "ready." If a child does not learn, according to a mechanism called intelligence, indirectly the child, and frequently his ethnic group association, are held to be responsible. It is assumed that the mechanism (intelligence) and the child are deficient and not capable of an adequate performance, and that the ethnic group has genetic deficiencies which affect the development of intelligence. To counteract this assumption, teaching should involve establishing a learning environment in which there is a predictable relationship between a pupil's classroom performance and the classroom environment. Should a pupil fail to learn what is desired, the classroom environment should be explored and analyzed to determine those ways of modifying it to promote the desired learning. In this manner, teaching is based upon the idea that faulty learning is the product of a classroom environment rather than a faulty student. This particular approach counteracts or prohibits the association of ethnic group membership with school performance and in addition counteracts the assumption that minority children cannot learn.

Teaching is concerned with observable activities. When a pupil is reading, you are observing "reading behavior" with all of its correlate behaviors, i.e. eye movements, lip movements, etc. When a pupil is talking, we speak of his "verbal behavior," (Meacham & Wiesen, 1969). The use of observable behavior as the relevant source of information in designing teacher training experiences permits better description of student performance and diminishes the effects of subjectivity in assessment and evaluation. Subjectivity is one of the principal sources of racist assumptions and attitudes about minority students and can be counteracted effectively through the use of less subjective data for teacher decisions.
Meacham and Wiesen (1969) have named the methods used in the competency-based model as precision teaching. They suggest that in such teaching the teacher is not merely a conveyor of information as traditionally conceived, but is also a scientist whose area of study is the behavior of pupils in school. Such a framework provides an ideal opportunity for continuous evaluation of presented educational materials and teacher techniques. If a certain type of material does not result in successful learning, it may be modified or even rejected. If a particular pupil does not respond correctly to given material, material more appropriate for that pupil will be tried or other factors will be examined. In this situation the teacher must be prepared to assume the basic attitude of the scientist and be ready to abandon his or her method if it does not prove effective, for it is the data about pupils which determines the next move, not assumptions about pupils.

Teaching in the proposed model provides an atmosphere in which the individuality of each pupil - his or her uniqueness as a human being - can be truly actualized. The approach requires that the teacher have some knowledge of the particular likes and dislikes of each pupil, his or her present level of performance and his or her specific preferred activities. The teacher cannot make assumptions about the pupil but must actually conduct scientific observations of he or she in action to obtain accurate data. Above all, this type of teaching emphasizes a pupil's present performance without excessively dwelling upon his past. This is not to say that the past has no influence on present behavior, but merely that only certain past events are really meaningful in understanding a student's present behavior. By questioning many of the unfounded ideas about how pupils are supposed to behave, the teacher in this system automatically eliminates ethnic group membership as a correlate of intellectual performance.

In order for all teachers to be able to design and conduct a competency-based learning environment, they must be able to manifest the following teaching
Behaviors:

1. Design behavioral objectives for pupils, i.e., performance, cognitive, and expressive.
2. Design diagnostic pre-test instruments for pupils.
3. Administer diagnostic pre-tests to pupils.
4. Evaluate diagnostic pre-tests in behavioral terms for pupils.
5. Communicate strengths and weaknesses of pupils to parents and pupils.
6. Design teaching strategies in behavioral frameworks that will implement achievement of stated objectives that are based upon diagnosed strengths and weaknesses.
7. Conduct teaching strategies in behavioral frameworks that will result in achievement of objectives.
8. Select instructional materials that are necessary for the achievement of objectives.
10. Re-cycle pupils who do not reach the necessary mastery level for attainment of objectives.
11. Design post-test instruments to acquire data about achievement of objectives.
12. Evaluate post-test instruments data in conjunction with pre-test instruments data to assess effectiveness of instructional materials and strategies.
13. Evaluate total learning environment in terms of its effects on pupil learning.

In addition to the above competencies, teachers, regardless of the cultural make-up of the school, must be able to manifest the following teaching
behaviors:

1. Categorize behaviors which have led to negative assumptions about minority pupils and their cultures.

2. Categorize societal beliefs which have led to negative assumptions about minority pupils and their cultures.

3. Examine curriculum materials and specify how such materials have contributed to negative assumptions about minority pupils and their cultures either by omission of data or inclusion of data which promotes a less than positive view of minority peoples.

4. Redesign curriculum materials that will promote a positive set of assumptions about minority students and their cultures.

Finally, teachers who work specifically in a multi-cultural school setting must manifest the following competencies in addition to those listed above.

1. To conduct an inquiry-oriented science and social studies program which is culturally relevant to all pupils.

2. To conduct a modern math program which emphasizes structure without losing proficiency in computation, and which can be applicable to all children's experiences with numerical variables.

3. To develop in the pupils the social skills and values necessary for survival in the dominant culture without denying the existence of other values equally appropriate in minority cultures.

4. To assess his/her impact on pupils and to modify that impact by modifying teaching style.
5. To differentiate between interpersonal relations with other staff members which have a negative effect on the teaching-learning process and those which lead toward positive change.

6. To effectively use audio-visual equipment in the instructional program to develop instructional modules which relate to the life-styles of all pupils.

7. To develop and involve community resources as integral parts of the teaching-learning process.

8. To interpret the school's program to the community in terms both understandable and acceptable.

9. To design curriculum modules which relate to the multi-cultural population of the school and which provide ways for positive identification of self-images by all pupils.

Teacher training procedures should concentrate on developing all of the above listed competencies in all future and in-service teachers, not just those who plan to teach or are teaching in multi-cultural schools.

Problems and Issues

Perhaps the most serious detriment of the achievement of a truly multi-cultural system of competency based education is the present professional attention to the multi-cultural aspect. While little apparent negativism has developed in relation to the concept of multi-culturalism, a very real concern is that professional educators of all ethnic groups will spend much of their time attempting to achieve a truly multi-cultural society, while ignoring the more visible problem of ethnic pupil school achievement. There is no empirical evidence that the development of a multi-cultural school system has any direct relationship on minority pupils' achievements. In addition, multi-culturalism focuses its concepts on behavioral differences exclusively rather than on both similarities
and differences between and among all segments of the society. To continue to focus on differences is perhaps to subtly continue to support the inferiority-superiority hypotheses while at the same time postulating an acceptance on a level of parity of differential behavioral manifestations from all cultures. There is an inherent conflict in this approach since it tends to reinforce the seldom verbalized, but currently accepted belief that ethnic minority pupils cannot manifest an achievement level equal to that of majority white pupils and at the same time it proposes that all cultural values and their resultant behavior are equal. Such a conflict will inevitably at worst promote the continuation of teacher training practices which behaviorally reinforce the negative attitudes about ethnic minority children and at best increase the patriarchial condescending view of ethnic minority persons held by the white majority that exists in America today.

Presently, it is more feasible for professional educators to concentrate their efforts on the development of competency based teacher training procedures which can minimize the negatively stereotyped attitudes about ethnic minority children, and concurrently promote the development of a multi-cultural society.

The teacher's stereotypical thinking, whether or not she or he is sympathetic to the plight of ethnic minorities or low income pupils, can itself engender a cycle of defeatist or aggressively counteractive behavior by pupils which fulfill negative expectations. In other words, the teacher's behavior vis-a-vis certain pupils, which follow from unfavorable attitudes and expectations of what such people are "really like," foster those behaviors by pupils which fulfill the culturally derived expectations. They tend to react against teachers and the system which tells them that they are inferior, primitive, dull or unstable. Overt or covert stereo-types in which ethnic minority youngsters are seen as intellectually inferior, immoral, emotionally unstable, lazy, boisterous,
overassertive, lawless, superstitious, happy-go-lucky, untrustworthy, etc. prevail in American society (Allport, 1958) affecting the way in which a teacher interacts with pupils perceived in such a light. This in turn influences how pupils will not only react toward the teacher and the learning environment which she or he structures, but also how they will view themselves. This insidious cycle describes the concept of the self-fulfilling prophecy in which the expectancy of certain behaviors in others tends to evoke that very behavior (Rosenthal, 1966).

Those educators who believe that the problem of education in the urban school lies in the disadvantaged child are likely to harbor beliefs which breed lowered expectations of performance, promote differential and unequal treatment in the form of instructional quality and process and thereby lower educational results. Such beliefs lead to futile attempts to restructure the pupil, often simply to make he or she behave according to the teacher's notions of proper conduct, rather than structuring the environment to effectively produce desired learning. To the extent that teachers' notions of minority pupil inferiority represent the rationale underlying the quality and process of instruction in urban schools, minority pupils may be expected to exhibit differential and inferior achievement when compared to those who are not subjected to the same kinds of negative evaluation.

Consistent with the several points emphasized by Clark, Johnson points out that black pupils are readily labeled delinquent and retarded. The labeling process, he suggests, connotes deficits of ability or lack of values and behaviors which are acceptable to the school. Terms of recent currency such as "learning disability," "slow learner," "learning and adjustment problem" and "conduct disorder" merely replace such cliches as retarded and emotionally disturbed as applied to black pupils. The standard educational stereotype for black pupils, Johnson contends, is that if they have an IQ below 75 they are
"stupid" and they can be expected to have learning problems, and if their IQ is above 75 they can be seen as having behavior problems.

Johnson observes that special education programs, created for such groups as the "disruptive child" and the "slow learner," are little more than "window-dressing." Such programs allow the educational establishment to superficially maintain its institutional sense of power, purpose and identity as the system responsible for effectively educating the young.

Such labels as "emotionally disturbed" and "socially maladjusted," Johnson states, are merely euphemisms for aggressive black male pupils. Such pupils are often seen by whites as needing special treatment and/or therapeutic counseling to blot out the deviancy. In contrast, white male pupils who live up to the cultural stereotype prescribing aggressiveness are perceived to be developing appropriately masculine behaviors. Black male pupils who exhibit this same response pattern are held to be "deviant." Clearly a double standard exists. Indeed, Johnson reports on research showing that when black "deviant" pupils are rated by white teachers, there is a tendency for their behaviors to be classified more often as "aggressive" and "acting out."

Pupils who hold membership in groups which are the objects of ethnic stereotypes can be readily submitted to negativistic responses grounded in that stereotype. In a study of white adult behavior toward black and white children, Coates (1972) assumed that the generally negative attitudes of white adults toward black adults documented in the literature on interracial attitudes, would be generalized to pupils and would be expressed in the verbalizations used by adults in training a black pupil on a learning problem.

The results indicated that white adult males were significantly more negative in their statements to the black pupils than to the white pupils, whereas white adult females did not use negative statements differently for the two racial groups. Analyzing trait ratings of personality according to race of child and sex of adult,
the author found that both the males and females rated black children more negatively (e.g., dull, passive, unfriendly) than white children. Importantly, the author emphasizes that the experimental procedures and findings of the study provide evidence that the adults were not responding to behavioral differences in children of the two races.

Stereotypes of socioeconomic status as well as ethnicity have significant implications in the learning situation. In their study investigating the effects of socioeconomic class and teacher bias, Miller, McLaughlin, Hadden and Chansky (1968) found that for college students preparing for careers in education, pupil records containing cues concerning lower-class status resulted in lower estimates of academic achievement, classroom citizenship and life attainments. This indicates that teachers tend to negatively evaluate the achievements of pupils who are identified as coming from a lower-class background.

These findings are consistent with those of Mazer (1971) who studied the effects of social class stereotyping on teacher expectation. Mazer found that designations of social class (i.e. "disadvantaged," "deprived," and "middle class") differentially affected teacher expectations of pupil performance. Teachers rated lower status pupils as linguistically inept, undependable, unkempt, inattentive, unmotivated and uncooperative, while their middle-class counterparts were expected to exhibit tendencies in the opposite direction. The disadvantaged pupil, Mazer suggests, was apparently perceived as an educational underachiever and misfit who fails to maintain average grades and leaves school at a relatively early age. The author notes that these results are consistent with a number of studies conducted on teachers at various levels and in several regions of the country.

Several researchers have shown that biased stereotypes of minority pupils are commonly held by teachers. Becker (1962) studied teacher perceptions of inner-city pupils by standard interview. He found that his sample of teachers reported urban pupils to be difficult to teach, uncontrollable, violent and
morally unacceptable on all criteria. Clark (1964) reported that fifty percent of white teachers sampled in the New York inner-city area believe that black pupils are inherently inferior in intelligence and therefore cannot be expected to learn. They are reported to believe that schools should essentially operate as custodial institutions for such pupils.

Consistent with these findings, Gottlieb (1964) reported that white teachers in a Northern urban community typically viewed black pupils in a simplistic stereotypical context, seeing them as talkative, high-strung, lazy, rebellious, and fun-loving, while black teachers viewed the same pupils as happy, cooperative, energetic, ambitious and fun-loving. Similarly, Hogan (1969) reports that the findings of the Michigan Public School Racial Census conducted in 1967 for the Michigan State Department of Education revealed that teachers' attitudes toward pupils were negative in classes with a large proportion of black pupils. She quotes the report: "It appears that the greater the proportion of Negro pupils in a class, the lower the teachers' rating of their pupils' academic ability and motivation" (p. 157).

Thus perhaps one of the most crucial issues that influences the education of ethnic minority pupils is a conglomerate of expectancy factors: First, the expectation that minority pupils in urban settings are part of a lower caste system which is to be distrusted and feared; second, that ethnic minority pupils are supposed to be different, interpreted to mean deficient, stupid and inferior; third, such pupils can at best have a marginal place in the American population; and fourth, that such pupils are difficult to instruct and have little capability to learn the required academic concepts. Such expectancies when operative have resulted in a circular effect. Ethnic minority pupils in general manifest a significantly lower achievement level than other pupils, grow up and are employable in marginal positions, if at all, have children who in turn meet the same set of expectancies and who in essence demonstrate the same achievement level in
school and work as their parents. Attempts to counteract this cycle have been for the most part inadequate. The primary mode of counter-attack has been conducted through programs call compensatory education. Significant sums of money have been channed into "innovative, special educational programs for disadvantaged pupils," yet a recent analysis (Rand, 1972) of the research on these programs indicates little if any significant improvement in the educational outcomes for minority school children. None of the research presents any empirical evidence about the effects of negative teacher expectancies on pupils' performances. Without the latter kind of evidence, the evaluative conclusions about compensatory and other innovative educational programming are less than valid and provide little real direction for future programming.

What seems to be needed is a conceptual framework of educational practices and procedures that counteracts and minimizes the effects of negative teacher expectancies as such impinge upon urban minority pupils. I propose that the concepts of competency based education have the potential to act as an effective force in the formation of positive teacher expectancies, and reciprocally minimize the impact of negativistic assumptions about pupils.

The role of teachers' negative attitudes and assumptions about pupils can be largely controlled in competency based programs through the systematic development and implementation of the competencies defined earlier. A brief consideration of issues and specific operations relevant to the design and implementation of these competencies will indicate the means by which a learning environment can be structured to foster positive educational achievement for all pupils, irrespective of their ethnic and/or social class membership.

Assessment Strategies

Assessment of Cognitive and Behavioral Skills

The initial task in a competency based education program is to effectively assess the pupils' cognitive and behavioral strengths and weaknesses in academic
subject matter. Assessment must be conducted without any preconceived assumptions about expected pupil behavior due to race, ethnicity, age or sex. Assessment data must function as an empirical base for the design of learning environments which significantly increase the probability that pupils will develop desired competencies in the academic and behavioral domains. Assessment procedures must succinctly state acceptable performance levels that indicate mastery of a given task or set of tasks in order to function as an empirical base. Expected performance levels are made public to pupils prior to the initiation of assessment procedures so that pupils will know exactly what is expected and how and by whom their responses will be assessed. More importantly, pupils can learn to determine their relative level of performance and begin to assess their own strengths and weaknesses.

Assessment procedures in a competency based model of education do not assume that a pupil who has undergone prior instruction is prepared to advance into a higher level of academic performance. Usually the latter assumption is based upon a required passing grade. A passing grade does not delineate the performance competencies a pupil can or cannot manifest and does not specify in precise terms the prerequisite competencies a pupil must be able to demonstrate before advancement to higher academic levels.

In summary, assessment procedures in a competency based program are designed to minimize the effects of negative teacher expectations about minority children, are basically concerned with the observation and measurement of academic strengths and weaknesses, are focused on clear, succinct public performance objectives, and provide a sound data base for the design of future learning environments in the school.

When constructing an assessment instrument in the competency based model designed to measure cognitive skills, teachers will not rely upon expectations but instead will design assessment instruments, sometimes called pre-tests, based
on their knowledge of the academic skills needed to perform another academic task.

Briefly, the guidelines for the construction of assessment instruments are characterized by four major phases:

1. Planning the assessment instrument.
2. Item writing.
3. Item analysis.
4. Establishing measures of validity and reliability.

Assessment Strategies: Behavior

Special emphasis is given in competency based programs to behavioral assessment strategies which may be used to measure correlates of many cognitive skills. At the present stage of development in psychological testing and theorizing, it is highly questionable whether any test score can be validly interpreted as an index of immutable or fixed characteristics, capacities or abilities. Within the context of its fundamental genetic endowment, behavior is a function of interactions with one's environment, and as such is modifiable. New patterns of response may be predictably instated, and current responses may be maintained or eliminated exclusively as a result of planned (or unplanned) environmental events. Moreover, new and existing behaviors may be maintained at differential levels of occurrence, duration or magnitude as a consequence of conditions present in the individual's environment.

The scores derived from appropriately constructed and reliable cognitive assessment instruments can yield only estimates of specific existing cognitive knowledge, interests or attitudes as expressed through verbal communication. Verbal responses represent only one mode of behavior and are meaningful only when a comparison is conducted with an appropriate reference population or with the same population following a period of instruction. As Wicker (1969) has clearly
shown, written verbal behavior may have little or no relationship to other overt behavioral responses. What pupils actually do or can do in terms of observable performance often cannot be predicted from their written and/or verbal productions. When techniques of assessment focus upon overt behavioral performances which are taken as evidence of learning, the role of interpretation by the teacher is minimized.

In behavioral assessment, factors of subjective judgment, biases, expectations and personal assumptions about urban minority pupils are largely controlled when evaluating educational achievement. In behavioral assessment, the teacher's personal disposition toward a given pupil with respect to his race, ethnicity or socioeconomic status is irrelevant. The pupil is assessed on the basis of what he can or cannot demonstrate in a given curricular domain. Overt behavioral performance is the sole criterion of achievement. Further, behavioral assessment holds that what does not presently exist in the pupil's behavioral repertoire is not as important as what does exist - what the student can actually do. This is the base upon which new behaviors are shaped and structured. The objective is not to isolate, identify and label judgmental characteristics or attributes of the pupil for negative reports, but to determine the existence of current patterns of performance with the aim of building up new behaviors to demonstrate learning.

Thus the major objective of behavioral assessment is not to evaluate behavior within the implicit context of a judgmental scheme; rather, it is to provide descriptive, reproducible data on quantitative measures of directly observable samples of behavior. This approach attempts to minimize the imposition of negative subjective perceptions, expectancies, assumptions and biases in judgment by the assessor, in both the collection of and analysis of the data, and curbs the further development of negative teacher expectations.

As suggested by Kanfer and Phillips (1970), behavior assessment attempts to provide empirical information that allows the teacher to define objectives for
instruction, to identify conditions maintaining undesirable behavior as well as desirable responses, and to permit the selection of the most efficient strategy designed to promote desired learning.

Quantitative evaluation of change in learning responses should be a continuing and integral part of educational programs. Continuous monitoring of progress toward achievement of educational objectives allows the classroom teacher to restructure and adapt instructional activities as needed to optimize conditions for attainment of educational goals, defined in terms of directly observable behaviors. In addition, pupils who are systematically apprised of their strengths and weaknesses relevant to specified performance objectives may contribute to the development of more salient programs, experiences, and procedures facilitating educational achievement. The latter feature could be used to enhance minority pupils options in learning to gain more control of their own lives.

Behavioral Objectives

A behavioral objective is an essential component in competency based programs. It is designed to provide explicit information allowing both teacher and learner to be made aware of the educational goals in a learning environment; it specifies what outcome behavior is to be achieved as a result of instruction, how the behavior is to be achieved, and how its achievement is to be demonstrated and evaluated.

Behavioral objectives represent a comprehensive statement (or series of statements) serving as the procedural guideline for the teacher as instructor, and the pupil as learner, specifying (1) substance (content), (2) structure (format or arrangement), and (3) process (methodology) characteristics of an educational program designed to produce learning in the form of planned behavioral change.

A large body of research has demonstrated that teacher attitudes, beliefs, values, and expectancies can function as major inputs in the learning environment which directly influence instructional quality, practices, programming, processes
of socialization, and educational achievement (Asbell, 1963; Gibson, 1965; Green, 1969, 1972; Katz, 1964; Kavaraceus et al., 1965; Leacock, 1969; Rist, 1970; Rosenthal and Jacobson, 1968; Wilson, 1963). When children are labeled, categorized, and allocated to curricula on the basis of inferences drawn from non-behavioral, and ambiguous sources of information, evaluations are often interpreted in the context of negativistic assumptions about their ability or capacity to learn (stemming from stereotypical conceptions about members of racial/ethnic/socioeconomic groups); such children are typically exposed to learning activities which are educational cul de sacs. When assumptions and inferences are the bases for setting educational goals and designing and implementing instructional programs, decisions follow which effectively program pupils for miseducation or academic failure. The pupil who is assumed to be able to function to some arbitrary level of criterion in a particular curriculum is denied access to those instructional experiences which he must undergo in order to determine if the "global" evaluations were accurate. Expectations tend to produce results which justify the assumptions.

Conversely, behavior based objectives do not rely upon methods of assessment designed to produce labels and generate inferential speculations about performance skills. Rather, objectives are set and modified on the basis of data derived from direct and systematic application of assessment criteria.

**Instructional Strategies on Designing a Learning Environment**

In designing a learning environment it is essential that the teacher consider the extent to which it is structured to optimize the opportunity for all pupils to become educated. The point to keep in mind is that the classroom is essentially a social situation—with a complex of interacting events, activities, and conditions impinging directly upon all participants in the milieu. To the extent that a social environment is improperly arranged, manipulated, and controlled, the opportunity for achieving predictable and desired outcomes is impaired.
In managing this social system the teacher must attempt to structure its components in a way that both his behaviors and those of the pupils he instructs interdependently operate to produce planned behavioral change in the sequential steps intended. This is largely an issue concerned with the design of physical, social, and temporal conditions which facilitate learning, and the manipulation of predetermined consequences to affect pupil behaviors. Basically, this concerns the formulation and implementation of a strategy or programmed procedure in which both teacher-pupil behaviors are to be exhibited in a certain sequence and under specific conditions of occurrence, followed by pre-selected consequences to regulate performance.

In designing a system in which physical, social, and temporal parameters of milieu are specifically arranged to expedite planned behavior change, it is the environment itself that is altered and programmed. There is no attempt to restructure the pupil in terms of personality or intra psychic characteristics according to the notions of subjective opinion. The teacher is responsible for identifying and implementing those environmental changes that have been empirically determined to help the individual pupil to learn new skills.

Competency based methods emphasize planning, programming, predictability, and control with respect to the environmental conditions in which pupils behave and learn. The focus is upon promoting the achievement of educationally relevant responses through positive control of the learning environment. Teacher behavior, with respect to designing and implementing instructional activities is empirically evaluated, that is, tested in terms of the effects they produce. In this sense, the formulation and selection of operational strategies applied in the learning milieu are grounded upon objective, scientific analyses of their observed effects on actual pupil behaviors, not on subjective judgment. If a particular strategy fails to produce desired results, it is replaced by alternative procedures which must prove their effectiveness in each individual case. This represents a
novel approach to teaching. It is not uncommon to find pupils exposed to learning programs which totally ignore their experiential background and existing competencies in curricular subjects. A given procedure may be adopted by the teacher simply because it is standard or traditional for certain populations of pupils, irrespective of their individual needs. But in such cases, failure and frustration are also traditions.

Within the competency based system the theme is to utilize positive behavioral control to increase successful performance, whether achievements be modest or notable. In its application the model explicitly fosters the development of positive expectations for successful performance by the pupil. Pupil behaviors are seen to directly reflect the competence of the teacher's performance -- in terms of designing and implementing an instructional program. Every pupil is perceived to possess some specific educationally relevant competencies which can be developed and firmly established to facilitate building up related performance skills. In this system, where positive expectations for pupils' growth and achievement prevail, and indeed, are provided for in the design of the instructional program itself, pupil achievements provide reinforcement not only for the individual pupil, but for the teacher who structures and implements the learning program. A model designed to strengthen and recognize existing and future accomplishments will produce outcomes for both teachers and learners that make education an enriching and productive experience. It is the manipulation of environmental variables which underlies learning. It is counterproductive to assume that the failure is a product of postulated incompetencies and incapacities of the pupil; rather, the teacher must examine the classroom environment (and program) he or she structured in order to identify those conditions or elements which interfered with or inhibited the emergence of criterion behavior, and rearrange the situation accordingly.
Evaluation

Evaluation in competency based programs is a continuous process of collecting and interpreting quantitative information which is used to make decisions about the learning environment in terms of its resources (inputs), instructional activities (process) and resultant pupil performances (output). Evaluation should provide quantitative information about the level of competencies of pupils entering a learning system, the level of competencies of pupils leaving the system, and the quality of instructional design in operation utilized in the learning system. As such, evaluation is a tool and a means and process of collecting data which may be used to optimize the system.

Pupil performance on various specific criteria is evaluated regularly and frequently as a basis for decisions related to pupils' progress through the program. This serves a diagnostic or guidance function. Performance of pupils and teachers involved in the program can be assessed for the purposes of evaluating the program itself. This serves an evaluation and research function. The teacher must determine which behaviors and activities are effective in facilitating desired pupil outcomes. It cannot be assumed that a program or mode of instructional practices is effective. It must be empirically demonstrated. The program must be open to development or modification on the basis of objectively quantifiable information. The quality of an educational program is evidenced by what it produces in terms of pupil outcomes—assessed with respect to a specified objective and explicit criteria of both teacher and pupil performance.

Continuous evaluation provides feedback for empirically grounded decision making regarding the allocation of resources and the modification of instructional processes as may be needed. Competency based programs depend upon feedback for correction of errors identified in the system and for the improvement of efficiency as it relates to structuring functional learning environments. A system which provides ongoing information about itself regarding the efficiency and effectiveness
of its design and operations should provide a means to minimize the role of highly subjective teacher judgment and possible biases about pupils in determining what competencies pupils possess upon entering or leaving the learning system.

To properly evaluate the efficiency of assessment as a component in competency based programs, the teacher must utilize measures which allow him to answer three questions:

1. Were appropriate assessment procedures used to yield empirical information on pupil performance?
2. Were assessment data appropriately interpreted, such that the role of subjective judgment was minimized?
3. Does assessment data lead to specific statements about objectively measurable and demonstrable performances of pupils in terms of behavioral strengths and weaknesses?

To properly evaluate the efficiency of objectives as a component in competency based programs, the teacher must utilize measures which allow him to answer three questions:

1. Were appropriate behavioral objectives formulated, specified, and made public?
2. Were behavioral objectives clearly and precisely stated in terms of explicit classes of measurable and demonstrable behavior?
3. Have behavioral objectives led in step-wise sequence to the terminal goal of instruction?

To properly evaluate the efficiency of instructional strategies as a component in competency based programs, the teacher must utilize measures which allow him to answer three questions:
1. Has the teacher designed a learning environment which facilitates the production of measurable behaviors indicative of positive educational achievement?

2. Were strategies appropriate (i.e. selection and organization of curriculum content, selection of learning experiences, positive reinforcement procedures, development and implementation of evaluative procedures) to facilitate learning by individual members of the given pupil population?

3. Were strategies effective and efficient in implementation, and modified as necessary on the basis of empirical data to produce desired outcomes?

To the extent that these questions, in total, can be answered affirmatively, it is likely that a functional learning environment has been formulated and established to promote positive educational attainments by all pupils exposed to it.

Summary and Recommendations

The competency based model of education, applicable to the training of prospective teachers is concerned with behavior change wherein the pupil acquires a specified level of competency in cognitive, social-emotional and performance domains. Within the competency based model, learning programs are designed so that pupils and their objectively identified needs are met, in contrast to the restructuring of pupils to fit into a program. Race, ethnicity, sex, income level and other demographic characteristics of the pupil have bearing in competency based programs only to the extent that they describe facets of the pupil's social history and prior learning experiences in the culture. Knowledge of these variables is used to the extent that such may contribute to developing relevant learning activities which build upon, and do not negate, pupils' previous
learning experiences. Thus, variables of race, ethnicity, income level, social status and sex reflect the cultural plurality, history and attendant learning experiences of the pupils. They are not, as many educators and test interpreters believe, indicants of intellectual capacity, aptitude and ability which may be used to allocate pupils (invariably lower income and ethnic minority persons) to educational tracks or problems which reduce the likelihood of high achievement and social mobility in American society.

In competency based programs measures designed to assess the individual's present level of functioning in a given domain represent objective indices of observable measurable behaviors. Such measures are not designed to provide labels for categories of inferential, subjective constructs which reflect the test constructor's and/or interpreter's own personal experiences, attitudes, value orientation, assumptions and biases. It is strongly suspected, as Brookover et al. (1973) suggest, that these culture-based tests, which label, classify and are used as an "objective" basis for placement of pupils in different educational categories and programs, function to stratify and allocate individuals to different social positions in society. That such tests are used to identify, label and allocate children to different educational programs where their preparation for the positions in the social strata is implicit, represents institutionalized discrimination and bias in its more subtle form.

Such an approach contrasts sharply with the competency based method by which the teacher determines what skills the pupils need to strengthen and/or expand. The teacher recognizes that pupils' behavior reflects both ideographic and nomothetic characteristics, i.e. some of their behaviors are unique products arising from their own personal learning experiences, while other behaviors are common to their social group, community, geographical region, and the larger culture. Therefore, the unit of analysis by which the pupils' educational needs are assessed in overt behavior. Constructs mired in postulations of personality,
values, intelligence quotients, attitudes, etc. are irrelevant to a competency based model of education. Rather, objective data describing observable, measurable occurrences of specifically defined behaviors tell the teacher/observer what the pupils actually do in terms of functioning in a given domain. The emphasis is clearly upon present behaviors. What does not presently exist in the pupils' behavioral repertoire is not as important as what does exist. What the pupils can do represents the base upon which subsequent new behaviors can be built, broadened and synthesized with other relevant responses in a given domain to produce a constellation of chained behaviors which represent performance skills.

Parenthetically, the analogy of the half-full/half-empty water glass is pertinent. A pupil may correctly read and define 50 out of 100 words in his lesson book. Is he really "dull," "stupid" or "inferior" because he "fails" to correctly answer the other 50 items? Or has he demonstrated "success" by correctly answering half of the items, which is the foundation for learning the correct response for the other 50 items? The latter situation epitomizes a major issue in education of ethnic minority pupils. The teacher who expects less of the ethnic minority pupil will see him as failing; the more objective, behaviorally based teacher sees him as learning, with opportunities abounding for structuring situations to foster further learning and achievement.

The pupils who are exposed to a competency based program know exactly what is expected of them. The instructional activity is designed so that the pupil builds a chain of successive correct responses which culminate in the criterion performance skills. If pupils falter at some point, procedures allow for them to re-cycle and build upon existing competencies. The criterion by which pupils can identify successful accomplishment of the learning objective is a specified level of observable behavior which the pupils can assess as objectively as the teacher. Because the emphasis is upon exit rather than entrance requirements, pupils of diverse backgrounds and levels of competency may participate in the
learning activity as long as they can demonstrate the minimal skills upon which
future behaviors are based. The instruction modes in a competency based model
provide a mechanism for specific guidance, feedback and evaluation which promotes
educational achievement.

Chief among the important implications of competency based education in multi-
cultural schools is the limitation and minimization of subjective variables in
terms of testing and evaluational judgments which have connotations of good and
bad. Explicitly specifying objectives in terms that have observable and measure-
able physical referents minimizes the intrusion of such intervening variables as
subjectivity and bias which have so often functioned to the disadvantage of ethnic
minority pupils. Similarly, the role of these intervening variables is minimized
in designing learning activities, assessment of competency prior to the learning
activity, assessing achievement of learning objectives, and setting criteria for
achievement and advancement to new learning programs.

If teacher training institutions are to provide pre-service and in-service
training which will significantly increase the probability (1) that ethnic minority
pupils improve their academic achievement levels and (2) that a multi-cultural
philosophic structure will undergird broad educational goals, then they must
facilitate the development of educational policy which will foster the following
processes in teacher training:

1. Conduct scientific analyses of learning tasks and design teacher
   functions to maximize the probability of the achievement of those
tasks.
2. Redesign teacher function within the competency based teacher
   education model.
3. Instruct teachers in the pros and cons of reinforcement practices.
4. Design internships (rather than student teaching) for pre-service and in-service teachers which will allow them to test their own competencies in all the areas of the competency based model.

5. Provide instruction for pre-service and in-service teachers in the curriculum area of teacher expectancies of ethnic minority groups and the ramifications in teacher behavior of such expectancies.

6. Instruct pre-service and in-service teachers in the evaluation of pupil performance on a pre-post performance continuum.

If teacher training institutions could achieve just the above items, many of the negative results of the education of ethnic minority children could be obviated and the development of the multi-cultural concept could be realized.
References


