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Factors related to special educators concepts of exceptional students, regular students, and themselves

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FACTORS RELATED TO SPECIAL EDUCATOR CONCEPTS OF EXCEPTIONAL STUDENTS, REGULAR STUDENTS, AND THEMSELVES

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FACTORS RELATED TO SPECIAL EDUCATOR CONCEPTS OF EXCEPTIONAL STUDENTS, REGULAR STUDENTS, AND THEMSELVES

A Dissertation

Presented to

The Faculty of the School of Education

The College of William and Mary in Virginia

In Partial Fulfillment

Of the Requirements for the Degree

Doctor of Education

---

by

Patricia Hubbell Harris

April 1983

FACTORS RELATED TO SPECIAL EDUCATORS
CONCEPTS OF EXCEPTIONAL STUDENTS,
REGULAR STUDENTS, AND THEMSELVES.

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Chapter 1

Introduction

The purpose of this study was to measure the affective meanings which special educators in Virginia public schools assign to their concepts of certain categories of exceptional students, regular class students, and themselves, and to explore how these attitudes and meanings relate to the age, sex, race, educational background and professional experience of teachers.

While the attitudes toward the handicapped held by regular educators and administrators, regular students, parents, and potential employers have been extensively studies, the attitudes of special educators have not been adequately delineated. Current evidence is mixed (Altman, 1981), and provides limited information concerning factors relating to the variations in attitude.

Some studies show that special educators hold more positive attitudes than regular educators (Algozzine, 1976; Efron & Efron, 1967; Harth, 1971; Jones & Gottfried, 1962; Jordan & Proctor, 1969; Parish, Dyck & Kappes, 1979). Other authors found no differences between the attitudes of regular and special educators (Gillung & Rucker, 1977; Green, Kappes & Parish, 1979; Kennon & Sandoval, 1978; Panda & Bartel, 1972). Still others provide evidence that professionals' attitudes toward the exceptional are not as positive as those of lay persons (Greenbaum & Wang, 1965; Harasymiw, Horne, Lewis & Baron, 1976; Smith, 1975). Thus, the

initial need was to clarify and elucidate the evidence concerning special educators' concepts of and attitudes toward exceptional children, and to examine possible relationships between these attitudes and meanings on the one hand, and certain demographic variables on the other hand.

Theoretical Background

As Altman (1981) noted in a recent review, most studies of attitudes toward the handicapped have been "atheoretical," (p. 323) and thereby have not provided as broad a base for interpretation as would otherwise have been possible. This lack of theoretical orientation is not due to a dearth of appropriate concepts. Psychological and sociological theories of social pathology, meaning, attitudes, self-fulfilling prophecy, expectation, and attributional judgments provide an appropriate theoretical context for the study of attitudes towards and meanings of the handicapped, and the possible effects of these attitudes and meanings.

Social Pathology

Lemert (1951), in his discussion of social pathology, stated that, "sociopathic behavior is deviation [from the norms or modalities of human behavior] which is effectively disapproved," (p. 23). Thus, handicapping conditions constitute social pathology, a deviance, overlaid with "cultural stereotypes which give the larger part of the social meaning to . . . handicaps," (Lemert, 1951, p. 29). The author further notes that, "If the deviant behavior persists for any length of time, stereotyped stigmas tend

to be attached to the deviant along with societal definitions of the deviant and his or her putative role. . ." (Lemert, 1951, p. 64). Finally, Lemert discusses the phenonmenon of secondary deviation, wherein the person employs "his deviant behavior, or a role based upon it as a means of defense, attack, or adjustment to the overt and covert problems created by the consequent societal reaction to him," (Lemert, 1951, p. 76). Clearly, this formulation of deviance as socially defined behavior involving stereotyped stigmas imposing further limitations on the deviant is applicable to consideration of exceptional students.

Goffman (1963) extended the theory of social pathology in his discussion of stigma.

> By definition, of course, we believe the person with a stigma is not quite human. On this assumption we exercise varieties of discrimination, through which we effectively, if often unthinkingly, reduce his life chances. . . . We tend to impute a wide range of imperfections on the basis of the original one, (p. 5).

This discussion of social pathology and stigma form the basis of an interactive view of deviance and social control, reviewed by Schur (1969), which is, indirectly, at the root of the current ecological view of handicapping conditions, in which special programs focus both on the child and on the environment (Algozzine, 1977a, 1977b; Fraser, 1979; Spencer, 1977).

Recent theorists (Gliedman & Roth, 1980; Hobbs, 1975; MacMillan, Jones & Aloia, 1974; Maurer, 1972) have noted that the

use of the present labels in special education predisposes professionals to rely on the social pathology model in interpreting handicapping conditions, and that this predisposition may in turn result in services which interact with and enforce deviance, promoting stigma and reducing the chances of the exceptional child by reinforcing the child's inadequacies. The effect of such reliance on the social pathology model is to develop in professionals, whose actual aim is to promote competence among the exceptional, an unconcious bias which interferes with this goal. Teachers, and other professionals become overly aware of areas of weakness, and fail to take into account and promote areas of strength. Should such automatic reference to a social pathology model of handicapping conditions be prevalent among professionals, special educators would be expected to define the exceptional child in stereotyped terms of limitation.

A Theory of Affective Meaning

Starting with the assumption that the meaning an individual assigns to situations, objects and persons has important psychological effects on that individual's behavior, Osgood, Suci and Tannenbaum (1957) developed a psychological theory of affective or connotative meaning and a means of quantitatively measuring such meaning. Meaning was defined as "that process . . . of a sign-using organism which is assumed to be a necessary consequence of the reception of sign-stimuli and a necessary antecedent for the production of sign responses, . . . a representational mediation

process," (Osgood et al, 1957, p. 9). This meaning is operationally defined as a point in a multi-dimensional Euclidean semantic space. It is sampled by using a semantic differential which is a series of bi-polar adjective scales, "each assumed to represent a straight line function that passes through the origin of this space," (Osgood et al, 1957, p. 25). Responses are made on a seven-interval scale from one (negative) through four (neutral) to seven (positive).

Messick (1969) applied the psychometric method of successive intervals to nine of the most frequently used scales in the semantic differential to investigate its metric properties, confirming the equality of intervals and the stability of the origin (or neutral point) across scales and concepts. This confirms the fact that the semantic differential satisfies the assumptions underlying the use of sophisticated multivariate statistics in the analysis of semantic differential data.

Research using the semantic differential technique to measure affective meaning of a variety of concepts across persons, settings, scales, and even cultures (Snider & Osgood, 1969; Osgood et al, 1957; Osgood, May & Miron, 1975), has repeatedly identified three major orthogonal factors of meaning: evaluation, potency, and activity. These factors are identified with bi-polar adjective scales, exemplified as follows: <u>evaluation</u>--good-bad, nice-awful; <u>potency</u>--strong-weak, powerful-powerless; <u>activity</u>--active-passive, fast-slow. Thus, the semantic space of a person or

group can be pictorially represented as a three-dimensional diagram. One extensive research project has explored cross-cultural universals of affective meaning of 620 concepts in 23 communities world-wide (Osgood et al, 1975). The means and standard deviations for the evaluation, potency, and activity factors for a representative selection of concepts of social deviants and concepts of self and school persons from the resultant atlas of meaning (Osgood et al, 1975, pp. 422-452) are shown in Table 1.

Table 1

Cross-cultural meanings of social deviance, self, and school person concepts, showing means and standard deviations for evaluation (E), potency (P), and activity (A) factors.

Social Deviant Concepts	E	P	A
Blind	3.4 0.9	4.0 0.4	3.4 0.3
Deaf	3.2 0.7	3.9 0.3	3.4 0.5
Beggar	3.2 0.7	3.5 0.5	3.5 0.4
Prostitute	3.2 0.7	4.0 0.4	4.4 0.4
Thief	2.8 0.3	4.3 0.5	4.7 0.6
Self and School Person Concepts			
Child	5.6 0.4	3.1 0.6	5.1 0.6
I (Myself)	5.3 0.4	4.7 0.5	5.0 0.7
Teacher	5.3 0.9	4.7 0.4	5.0 0.7
Professor	5.2 0.7	4.7 0.5	4.2 0.8
Student	5.4 0.6	4.5 0.4	5.0 0.7

Adapted from the Atlas of Cross-Cultural Universals of Affective Meaning, Osgood et al (1975, pp. 422-452).

Osgood and his associates (1957) found that a difference of half a scale unit (.50 scale units between poles) or greater, between factor scores was significant with group data. Thus, the evaluation scores for the social deviant concepts are significantly lower than those for "normal person" concepts. The concepts of the two handicap conditions, "blind," and "deaf," are rated as significantly less potent than all the "normal person" concepts except "child," and significantly less active than all the "normal person" concepts. Judging from these results, one can predict that, if the special educators in the present study employ the social pathology model of handicaps deplored by Gliedman and Roth (1980) as their frame of reference, they will rate exceptional students significantly lower on all three factors (evaluation, potency, and activity) than regular class students, special educators, or themselves personally.

Attitude Theory

Despite variations, attitudes are commonly defined as learned, enduring predispositions to respond in certain ways to an object, person or group (Zimbardo & Ebbeson, 1970, p. 6). Attitude theorists proposing a tripartite model (Bagozzi, 1978; Insko & Schopler, 1967; Ostrom, 1969; Triandis, 1971), define attitudes as consisting of three components:

> affective, behavioral (conative), and cognitive. . . . The affective component is thought to represent the positive-negative emotional relationship or feelings

> one has toward an object or activity. The behavioral dimension is said to depict the action tendencies one has approach or avoid an object or perform some response. The cognitive component encompasses the content of one's thoughts as to beliefs of statement of fact (Bagozzi, 1978, p. 10).

Katz (1960) further refined two aspects of the tripartite model of attitudes:

> The intensity of an attitude refers to the strength of the affective component. In fact, rating scales and even Thurstone scales deal primarily with the intensity of feeling of the individual for or against some social object. The cognitive, or belief component suggests two additional dimensions, the specificity or generality of the attitude and the degree of differentiation of the beliefs. Differentiation refers to the number of beliefs or cognitive items concerned in the attitude. . . . A rather different dimension of attitude is the number and strength of its linkages to a related value system. . . . Finally, the relation of the value system to the personality is a consideration of first importance. . . .The centrality of an attitude refers to its role as a part of a value system which is closely related to an individual's self concept (pp. 168-169).

Since the attitudes of interest in this study apply to the

respondent's occupation or profession and self-image, and are based on extensive information and experience, Katz's formulation suggests that special educators' attitudes toward students and themselves will be highly differentiated and linked to a central value system.

Greenwald (1968) considered the pertinence of learning to the development of the three components of attitudes, suggesting that classical conditioning underlay the affective component, instrumental learning the behavioral component, and cognitive learning and information processing the cognitive component. This suggests that the affective, or evaluative component of special educators' attitudes toward exceptional students will vary with length of teaching experience, becoming increasingly positive or negative due to the nature of the majority of their classroom experiences with such students.

Based on their research into semantic space, Osgood and his associates (1957, pp. 189-190), have provided a modification of the definition of attitude: a learned predisposition to make an evaluative response. This predisposition is measured by the evaluative dimension of the semantic differential. The authors further postulate that attitudes are governed by the principal of congruity: that two concepts which are related will move toward congruity with the relationship in their position in semantic space (Osgood et al, 1957). This suggests that if special educators view exceptional students primarily as students, then they

will define them as similar to"regular students," but if they view these students primarily as "exceptional" they will place them at a distance from regular students in semantic space, confirming a reliance on the social pathology view of handicapping conditions by special educators.

Many authors (Heberlein & Black, 1976; O'Keefe & Delia, 1981; Triandis, 1971; Weigel & Newman, 1976; Wicker, 1969) have considered the link between attitudes and overt behavior, finding that the correlation frequently is not sufficiently high to permit prediction of behavior based on expressed attitude, though predictability was found to increase as the specificity of the attitude object increased (cf "mentally retarded," "an educable mentally retarded student"), (Heberlein & Black, 1976). As Triandis (1971) summarized the situation:

> attitudes involved what people think about, feel about, and how they would like to behave toward an attitude object. Behavior is not only determined by what people would like to do but also by . . . social norms, by . . . habits, and by the expected consequences of the behavior, (Triandis, 1971, p. 14).

This implies that a negative evaluation of exceptional students by special educators will not find expression in overt rejection which would violate social norms. However, low activity and potency ratings of such students might result in the presentation of only limited learning experiences, and this behavior would be

supported by the social pathology model of handicaps.

Attitudes Toward the Handicapped

Initial efforts to assess the attitudes toward the handicapped consisted largely of rating devices on which respondents were asked to rank order exceptionalities on such factors as "most preferred to teach," (Badt, 1957; Jones & Gottfried, 1962; Kingsley, 1967; Kvaraceus, 1956; Orlansky, 1979; Warren, Turner & Brody, 1964). The results were fairly consistent in that all subjects preferred teaching the gifted, the emotionally disturbed and the crippled, and were least willing to teach the severely retarded. Only one of these studies included practicing special educators (Jones & Gottfried, 1962), who differed from others only in rating their own students, the educable mentally retarded, first in preference to teach. These rating devices provide only a global view of comparative evaluations of various categories of exceptionality.

Haring, Stern and Cruikshank (1958) developed instrumentation to measure information about the handicapped and acceptance of classroom integration. This instrumentation was used by Jordan and Proctor (1969) to confirm the correlation between knowledge and acceptance. Although these instruments do provide a comparative index between exceptionalities, they are situation-specific in measuring only acceptance of classroom integration, and are not very applicable in sampling the attitudes of special educators.

The Attitude Toward Disabled Persons (ATDP) Scale, (Yuker, Block & Campbell, 1960; Yuker, Block & Young, 1966), a twenty-

item Likert scale, provides a measure of attitude toward the handicapped across settings, but was found to have limited sensitivity to changes in attitude (Speer, 1976; Wilson & Alcorn, 1969), and to have inadequate psychometric properties (Antonak, 1980a). Lazar and others (Lazar, White & Sengstock, 1975; Lazar, White, Sengstock & Gaines, 1976) developed a variation, the Attitude Toward Handicapped Individuals (ATHI) Scale, to overcome defects in the ATDP due to changes in terminology, but no changes were made to deal with the criticisms leveled by Antonak (1980a). Both of these instruments produce only a single score covering attitude toward all handicapped persons, although the rating studies (Badt, 1957; Jones & Gottfried, 1962; Kingsley, 1967; Kvaraceus, 1965; Orlansky, 1979; Warren et al, 1964) found that the different categories of exceptionality evoked different evaluative responses.

Efforts to develop an instrument sensitive to various cognitive factors in attitudes toward the handicapped have included Efron and Efron's (1967) factor analysis of a Likert scale concerning mental retardation, and Harth's (1971) adaptation of a scale to measure attitudes toward the retarded from Woodmansee and Cook's (1967) multidimensional scale measuring attitudes toward the Negro. Both Efron and Efron's (1967) and Harth's (1971) scales provide valuable information concerning the cognitive content of attitudes toward the retarded, but do not permit comparisons across categories of exceptionality.

Guskin (1963), Jones (1974), and Antonak (1980b) used multivariate procedures to confirm the need for a differentiated

measure of attitudes across categories of exceptionality and degree of severity. MacDonald and Hall (1969, 1971) found differences in the perception of disability by the non-disabled across various situations, confirming Major's (1961) hypothesis that acceptance varied with the situation.

Several authors (Gottlieb & Corman, 1975; Gottlieb & Siperstein, 1976; Greenbaum & Wang, 1965; Panda & Bartel, 1972) used a semantic differential (Osgood et al, 1957) to measure attitudes toward the exceptional, confirming different responses to different categories of exceptionality and degrees of severity.

Sigler and Lazar (1976) found positive but not significant correlations between attitude toward the handicapped and sex, age, educational level, teaching experience, self-esteem and locus of control. Efron and Efron (1967) also found correlations between such attitudes and social status and contact with the exceptional.

The studies reviewed provide evidence that attitudes toward the handicapped vary across categories of exceptionality and are more negative than attitudes toward the normal or gifted. Only six of the studies (Efron & Efron, 1967; Greenbaum & Wang, 1965; Harth, 1971; Jones & Gottfried, 1962; Jordan & Proctor, 1969; Panda & Bartel, 1972) included special educators. In most cases, the special educators followed the attitude pattern demonstrated by regular educators, except in being more positive toward the particular type of exceptional students they taught. However,

Greenbaum and Wang (1965) found that the professionals (special educators, vocational counselors, school psychologists, physicians) were significantly less positive than paraprofessionals and parents. In addition, Harasymiw and his associates (1976) found that special educators were consistently less open to social closeness with the handicapped than either regular educators or special education teachers-in-training. Smith (1975) found that South Carolina teachers of the educable mentally retarded held significantly less positive attitudes toward the retarded than a normative group of Fellows in the Education Division of the American Association on Mental Deficiency. As these studies finding poor attitudes among special educators were conducted with different groups, different instrumentation, different methodology, and at different times, the need for concern is strengthened.

The importance of special educators' attitudes was addressed by Blackwell (1972) who demonstrated a strong correlation between teacher attitude and rated teacher effectiveness. Stodden, Ianacone and Lazar (1976) found a correlation between accepting-rejecting attitudes toward the handicapped and accepting-rejecting nonverbal behavior by educators with special students. Goldberg and Mayerberg (1973), in a study of student reaction to nonverbal teacher behavior, found that students evaluated the positively behaving teacher more positively. Veldman (1973) offers confirmation in finding that special education students were aware of their teachers' attitudes. Thus, the nonverbal behaviors of special educators correlate with attitudes and become an important

factor in the classroom.

Self-Fulfilling Prophecy and Teacher Expectations

Brophy and Good (1974) defined teacher expectations as "inferences that teachers make about the present and future academic achievement and general classroom behavior of their students," (p. 32). The importance of the attitudes and expectations special educators hold for their students stems from the possibility that these attitudes and expectations may form the basis of a self-fulfilling prophecy, defined by Merton (1949) as an intial "false definition of the situation evoking a new behavior which makes the originally false conception come true," (p. 181). This, clearly, is the concern underlying Gieldman and Roth's (1980) objection to the social pathology model of handicapping conditions.

Brophy and Good (1974) developed a model of teacher expectations:

> 1. . . . All teachers form differential expectations regarding the achievement potential and personal characteristics of the students in their classrooms. Some of these initial expectations are inappropriate, and some are relatively rigid and resistant to change even in the face of contradictory student behavior.
> 2. Teachers begin to treat students differently in accordance with their differential expectations for them. Where teacher expectations are inappropriate and rigid, treatment of students will be inappropriate.
> 3. Students treat teachers differently because of their

different personalities, and they also respond differentially to the teacher because the teacher treats them differentially. . . .

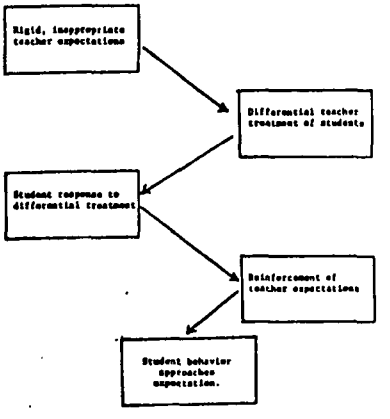
4. Thus, in general, each student will respond to the teacher with behavior that compliments and reinforces the teacher's particular expectations for him. . . .

5. If continued indefinitely, this process will cause the students toward whom the teachers hold inappropriate and rigid expectations gradually to approximate those expectations more and more closely. . .(p. 39).

A flow chart of teacher expectations which become self-fulfilling prophecies, based on this model, is shown in Figure 1.

Figure 1

Flow Chart of the Self-Fulfilling Prophecy in the Classroom, Based on the Model by Brophy and Good (1974)



Thus, inappropriate and rigid expectations on the part of teachers will become self-fulfilling prophecies.

One suggested possibility has been that label-induced stigma and stereotyping in special education may elicit rigid and inappropriate expectations among special educators. Research has

confirmed the stereotyping based on special education labels, and demonstrated that such stereotypes effect even special educators' expectations and subsequent ratings of pupil behavior (Algozzine, Mercer & Countermine, 1977; Combs & Harper, 1967; Foster & Keech, 1977; Foster, Schmidt & Sabatino, 1976; Foster & Ysseldyke, 1976; Foster, Ysseldyke & Reese, 1975; Gillung, 1976; Gillung & Rucker, 1977; Jacobs, 1978; Jones, 1972; Salvia, Clark & Ysseldyke, 1973; Young, Algozzine & Schmidt, 1979; Ysseldyke & Foster, 1978). In addition, two studies (Frank & Buttgereit, 1979; Meichenbaum, Bowers & Ross, 1969) provide evidence that expectancy effects do occur in special education field settings.

Attributional Judgments

Weiner and his associates (Frieze & Weiner, 1971; Weiner, Frieze, Reed, Rest & Rosenbaum, 1971) have studied the attribution of success or failure to four causal factors: ability and effort (internal), and luck and task difficulty (external). Success was found more likely to be attributed to internal factors while failure was usually attributed to task difficulty. Research into attributions for exceptional students by educators (Frank & Buttgereit, 1979; Severence & Gasstrom, 1977; Stoller, Algozzine & Ysseldyke, 1981) suggests that a different pattern of attributions for success and failure may be used when the actor is a labeled exceptional student, with luck and low task difficulty being associated with success and lack of ability forming the attribution for failure. This again would reflect the reliance on a social pathology model of handicapping conditions and would affect

teachers' expectations for exceptional students.

Need for the Present Study

As previously discussed, presently available evidence concerning the attitudes and meanings special educators assign to their concepts of exceptional students is mixed. However, Gliedman and Roth (1980) postulated that special educators tend to accept the social pathology model of handicapping conditions, and that this model has insidious effects in the stereotyping of the handicapped and subsequent limitation of their life's opportunities. Some research (Greenbaum & Wang, 1965; Harasymiw et al, 1976; Smith, 1975) has confirmed the possibility that special educators hold negative attitudes toward exceptional students. Research has also confirmed that stereotyping of exceptional students does occur among special educators (Gillung, 1976; Gillung & Rucker, 1977; Ysseldyke & Foster, 1978). Various means whereby such negative attitudes and stereotypes would impact on special students, producing the limitations discussed by Gliedman and Roth (1980) include nonverbal communication (Stodden et al, 1976; Goldberg & Mayerberg, 1973), teacher expectancy effects (Brophy & Good, 1974), and attributional judgments of students' successes and failures (Stoller et al, 1981).

In addition, the attitudes of special educators have been found to relate to those of the regular educators in the same building, providing a model which regular educators follow (Guerin & Szatlocky, 1974; Mandell & Strain, 1978). Thus, the attitudes of special educators will indirectly impact on special

students by influencing the attitudes of regular educators who receive mainstreamed students.

Concerns over attitudes toward and stereotyping of exceptional children have promoted the development and use of a variety of programs for improving these attitudes in preservice (Herr, Algozzine & Eaves, 1976; Lazar et al, 1975; Orlansky, 1979; Speer, 1976; Warren et al, 1964; Wilson & Alcorn, 1969) and inservice teachers (Gay, 1976; Haring et al, 1958). Evaluation of these programs supports the efficacy of active learning and experience procedures, though it is not clear that any of these programs actually address the social pathology interpretation of handicap as a foundation to be changed.

The immediate problem, however, was to establish whether, and to what extent, special educators do assign stereotypic meanings to their concepts of exceptional children, meanings in keeping with the social pathology model, and to identify factors which may relate to differences in these attitudes and meanings. Such evidence would then be important in terms of planning preservice and inservice education for special educators to promote delivery of quality education to exceptional students.

Statement of the Problem

The purpose of this study was to explore the affective meanings, as defined through use of a semantic differential instrument, that special educators in Virginia public schools assign to their concepts of certain exceptional students, regular class students, special educators and themselves personally, and to identify

relationships between these affective meanings and the age, educational backgound, and teaching experience of teachers.

The specific questions addressed were as follows:

1. What affective meanings, as measured with a semantic differential instrument, do special educators serving the educable mentally retarded, learning disabled, and emotionally disturbed in Virginia public schools assign to their concepts of the educable mentally retarded, learning disabled, emotionally disturbed, and regular class students, and of special educators and themselves personally?

2. Do special educators hold more positive attitudes, as measured by the evaluative factor of a semantic differential, toward the category of exceptional students they teach than toward other categories of exceptionality?

3. To what extent do the variables of age, level of education, length of teaching experience, type of service delivery (itinerant, resource, or self-contained class), teaching at the elementary or secondary level, and size of employing system correlate with these affective meanings?

Definition of Terms

The following terms represent the predictor and criterion variables in this study:

Affective Meaning

Following Osgood and associates (1957, p. 25), affective meaning is defined as the location of a concept in a multidimensional Euclidean semantic space primarily involving orthogonal

evaluative, potency, and activity dimensions.

Attitude

Attitude is defined as the evaluative dimension of a response predisposition, defined within the context of the meaning the attitude object holds for the respondent, as measured through the use of a semantic differential.

Exceptional Children

Exceptional children are those children who are eligible for service under the provisions of PL 94-142, the Education for all Handicapped Children Act, and the Virginia Regulations (Regulations, 1978). For purposes of this study, three categories of exceptional children will be used as referents: the educable mentally retarded, emotionally disturbed, and learning disabled. It is assumed that the teachers responding to this study serve children who have met the legal criteria for such services, but the interest in the present study focuses solely on the personal affective meanings special educators assign to their concepts of these categories, not legal definitions and criteria for exceptionality.

Regular Class Students

Regular class students are those students receiving their education in regular classes, who have not been identified as eligible for special education under the provisions of the law.

Special Educators

Special educators are those teachers holding Virginia certification who are teaching handicapped children.

Approximately 7200 special education teachers provide service to students in twelve categories of exceptionality in Virginia public schools. Fifty-five percent of these teachers serve the three major categories of exceptional students: mentally retarded students (30.66% of the teachers), the emotionally disturbed (10.3% of the teachers) and the learning disabled (14.3% of the teachers), (Special Education, 1980, pp. 169-170). As these teachers represent the majority of Virginia's special educators, they and their students will be the focus of this study.

Type of Service Delivery

Three major types of service delivery used in public schools--itinerant teacher, resource, and self-contained class teacher--will be studied.

Itinerant teachers provide service to students in several schools within a system.

Resource teachers provide service to students who receive 50% or more of their education in the regular classroom from the regular teacher.

Self-contained class teachers provide more than 50% of the special student's education to him/her within the special education classroom.

Level of Service Delivery

Two major levels of service delivery--elementary and secondary--will be considered.

Elementary school will be taken as pre-school through the

elementary grades (Grade 5 or 6, depending on the school system).

Secondary school will be considered as including the middle or junior high school and high school.

Length of Experience

Two experience factors will be considered: number of years in the present position, and total number of years of teaching experience.

Educational Background

Educational background is defined as the degrees held by a teacher: Bachelor of Arts (B.A.) or Bachelor of Science (B.S.), Master of Arts (M.A.), Master of Science (M.S.), Master of Education (M.Ed.), Master of Arts in Teaching (M.A.T.), Certificate of Advanced Study (C.A.S.), Doctor of Philosophy (Ph.D), and Doctor of Education (Ed.D.).

Size of School System

The size of a teacher's employing school system is defined as the total number of pupils in average daily membership (ADM) in that system during the 1980-1981 school year, as reported by the Virginia Department of Education (Facing Up, March, 1982).

Research Hypotheses

The following research hypotheses served to guide this study:

1. There are significant differences among the affective meanings special educators assign to their concepts of educable mentally retarded, learning disabled, emotionally disturbed, and regular class students, and special educators and themselves personally, as measured by a semantic differential.

2. Special educators hold significantly more positive attitudes (evaluation factor scores) for the category of exceptionality they teach than for the other categories.

3. There are significant correlations between the affective meanings measured and age, level of education, length of teaching experience, type of service delivery, level of service delivery, and size of employing school system.

Overview of the Study

As a part of a study of the affective meanings special educators hold for several concepts related to their profession, and variables related to these affective meanings, various instruments used to measure attitudes toward the handicapped, results obtained using these instruments, and programs for improving these attitudes are reviewed in Chapter 2. The effects of special education labels, and of time, education, and experience on educators' attitudes will also be considered, as will appropriate research on teacher expectancy effects.

The design of the study is described in Chapter 3. A ten percent stratified random sample of Virginia public school systems will be drawn. With consent of the directors of special education in these systems, research materials will be distributed through these directors to all the teachers of the learning disabled, educable mentally retarded, and emotionally disturbed teaching in these systems during the 1982-1983 school year. Instrumentation consists of a personal information sheet and semantic differential rating pages for the six concepts of

interest.

The analysis of the results is presented in Chapter 4, consisting of the semantic spaces of special educators in the three groups considered, analyses of variance to test for differences between concepts, and between the semantic spaces of the three groups of teachers, and multiple regression analysis of relations between the affective meanings measured and the demographic variables used as predictors.

In Chapter 5 the present findings are discussed, and placed in perspective in terms of the theory presented in this chapter, and recommendations for future research and for administrative consideration of current attitudes of special educators are presented.

Limitations of the Present Study

In the present preliminary investigation of the affective meanings assigned by special educators to concepts associated with their profession, and of variables correlated with these attitudes, conclusions are limited to the three categories of exceptionality studied, and to teachers certified and working in Virginia public schools with these three categories of students. Generalization of conclusions to teachers not employed in public schools, or employed in public schools in other states will not be included. Evidence of correlation between the affective meanings studied and the variables of educational level, length of teaching experience, type and level of service delivery, and size of employing school system will provide information needed to plan extensive longitudinal

studies needed to support conclusions concerning causality. The specific instrument used to assess meanings and attitudes is chosen as being the most suitable for the measurement and comparison of affective meanings across a variety of concepts, not the cognitive or behavioral components of attitudes. It is recognized that this study is limited by use of a paper-pencil measure of attitude, and that use of unobtrusive measures might provide differing results. Finally, a mailed survey procedure is chosen to ensure an adequately large sample to account for a number of demographic variables despite possible experimental mortality (Cook & Campbell, 1979, p. 53). No measure of differences between those participating in this research, and those who did not return data was possible in the present study.

Chapter 2

A Review of Literature

In this chapter, current descriptive evidence concerning the attitudes and expectations special education teachers hold toward exceptional students is reviewed. Methods of measuring these attitudes and expectations, factors shown to affect them, and attempts to produce experimental changes in attitudes and expectations are discussed.

For present purposes, attitude is defined as the evaluative or affective dimension of a response predisposition, defined within the context of the meaning the attitude object holds for the respondent. Expectations are defined as the part of the cognitive component of a predisposition in which the holder of an attitude assigns probability values to the demonstration of certain behaviors or traits by the person, group, or object to whom the attitude applies.

The importance of the attitudes and expectations special educators hold for their students stems both from the influence of these attitudes on those regular educators (Guerin & Szatlocky, 1974), and from the possibility that these attitudes and expectations may form the bases of self-fulfilling prophecies (Merton, 1969). The investigation of self-fulfilling prophecies is based on Thomas's theorem that, "if men define situations as real, they are real in their consequences," (Thomas & Thomas, 1928, p. 1104).

The implication is that what teachers believe of and expect from their students will have real consequences in terms of what students achieve and become. Thus, teachers whose attitudes are positive and whose expectations are high will influence their students toward high achievement and the development of positive traits and behaviors.

Measuring Attitudes Toward the Exceptional

The initial problem in studying the attitudes of educators has been to develop measuring devices which are valid, reliable, and which will provide an adequately refined description of the attitude in question to account for specificity, differentiation, and linkages to a value system.

Rating Scales

Initial efforts to measure attitudes toward the handicapped consisted largely of rating devices on which respondents were asked to rank order exceptionalities on such factors as "most preferred to teach," "least preferred to teach," "most in need of services," or "know most about," (Badt, 1957; Jones & Gottfried, 1962; Kingsley, 1967; Kvaraceus, 1956; Orlansky, 1979; Warren et al, 1964). These studies drew their subject samples from student populations, sampling primarily from among preservice teachers. Table 2 presents a summary of the samples and methods involved. The effects of attempts to influence or change subjects' attitudes toward the exceptional in some of these studies (Orlansky, 1979; Warren et al, 1964) will be considered in greater detail later.

Table 2

Summary Of Six Studies Using Simple "Prefer To Teach" Rating Scale As A Measure Of Attitude

Author	Date	Subjects	Sampling Procedure	Procedure	Institution
Kvaraceus	1956	84 graduate students, primarily regular teachers.	Enrolled in Education of the Exceptional Child	Measure of attitude	Berkley Campus, U.C.
Badt	1957	144 education majors 66 other majors	-	Measure of attitude, adjective checklist	University of Illinois
Jones & Gottfried	1962	330 education majors 51 experienced EMR teachers	College of Education, Second Semester	Attitude measure and factor analysis	Miami University, Ohio
Warren, Turner & Brody	1964	80 sophomore education majors	Enrolled in developmental psychology-education-sociology course.	Pretest-posttest with attempt to influence attitude through visits, course work.	-
Kingsley	1967	100 elementary education, 100 secondary education majors	Randomly chosen from selected education courses.	Attitude measure and description of characteristics.	Kent State
Orlansky	1979	50 students, randomly assigned to two groups	Enrolled in Introduction to Exceptional Children	Pretest-posttest. Alternative learning with lecture approach.	University of Virginia

The general results of five of these studies are summarized in Table 3. The results are fairly consistent in that all subjects showed a preference for teaching the gifted, emotionally disturbed and crippled, and were least willing to teach the severely retarded. The deaf, visually handicapped, and speech impaired were also usually ranked low on the preference scale. All the authors indicated an understanding by the subjects of the purpose and need for special services. Kvaraceus (1956) also found a high correlation between knowledge of a given exceptionality and preference for teaching. Badt (1957) concluded that the various exceptionalities had different social-stimulus value to the respondents, and that this value was relatively constant across situations. Only one of these studies, (Jones & Gottfried, 1962) included practicing special educators.

Table 3

Group Ranking Data of Exceptionalities From Five Studies Using Rating Scales as Attitude Measures

	Most preferred to teach							Least perferred					Most in need of service	
Exceptionality	Kvaraceus (1956)	Badt (1957)	Jones & Gottfried (1965) Students	Jones & Gottfried (1962) teacher (EMR)	Warren et al (1964) pretest	Warren et al (1964) posttest	Kingsley (1967)	Kvaraceus (1956)	Badt (1957)	Jones & Gottfried (1962) students	Kingsley (1967) elementary	Kingsley (1967) secondary	Badt (1957)	Kingsley (1967)
Gifted	1	1	4	3	2	2	2	6.5	3	2	1	2	3	*
Emotionally disturbed	2	2	2	2	1	3	1	6.5	1	3.5	2	1	1	*
Crippled	3	3	3	4			*	5	4	7	*	*	5	*
Delinquent	4		1	8				1						
Visual	5	6	6	9	4	1	*	3	7	3.5	*	*	4	*
Speech	6	4	8	7			*	8	5.5	5	*	*	6	*
Mentally retarded	7	5	7	1	6	5	*	2	2	1	8	8	2	1
Deaf	8	7	10	10	3	4	*	4	5.5	6	*	*	7	*
Chronically ill			9	5										
Brain injured					5	6								

* - included, but ratings not given

These teachers differed from the student groups only in rating their own area, educable mentally retarded (EMR) students, first in preference to teach.

The rating devices used in these studies provide a global view of the comparative evaluations toward and knowledge concerning various categories of exceptionality held by the respondents in any study, but provide no information concerning specificity and differentiation of these attitudes.

Measures of Knowledge and Attitude Toward Classroom Integration

Several authors (Berryman, Neal & Robinson, 1980; Haring, Stern & Cruikshank, 1958; Rucker & Gable, 1973) have developed measures of attitude toward integration and realism of recommended classroom

intergration as an approach to the study of attitudes toward the exceptional.

The Classroom Integration Inventory and the General Information Inventory

Haring and associates (1958), as part of a study of the effects of an extensive inservice program on the attitudes of educators toward exceptional children, developed and field tested a series of attitude measures, summarized in Table 4.

Table 4

Summary of Instruments Used by Haring and Associates (1958)

Instruments	Reliability
General Information Inventory (GII) 97 forced choice, 3 essay questions	
Classroom Integration Inventory (CII) 60 descriptions of children to designate appropriate placement from 5 choices. Yields Acceptance Score, Realism Score.	.84
Activities Index 300 activities to rate like-dislike as a personality evaluation.	.70
Picture Judgment Test projective attitude toward the handicapped instrument, 5 pictures of the handicapped in social, interpersonal context.	
Critical Incidents Test description of changes resulting from the workshops	

These instruments include measures of knowledge, acceptance, realism concerning placement, a projective assessment of attitude, and a measure of teacher personality variables. Subjects were teachers and administrators who attended fifteen workshop sessions, involving both lecture and small group discussion. Eight topics were included in the workshops:

1. children with intellectual retardation
2. children with orthopedic or neurological impairments
3. children with impaired hearing and/or speech
4. children with academic retardation
5. children with visual impairments
6. children with superior talent and/or intelligence
7. children with emotional disturbances
8. counseling for parents of exceptional children

(Haring et al, 1958, p. 23).

Results of the study, summarized in Table 5, showed significant increases in knowledge, acceptance, and realism about placement by participants. The results of the projective Picture Judgement

Table 5

Summary of Results of Workshops by Haring et al (1958)

Instruments	School I (City)	School II (Suburban)	School III (Rural)	School IV (Parochial)	Total
General Information Test					
Pretest means	61.17	56.29	55.76	50.71	56.14
Posttest means	67.28	61.24	64.79	70.29	64.63
Significance	.01	.001	.001	.001	.001
Classroom Integration Inventory					
Acceptance Scores					
Number of areas of gain	6	1	7	1	7
Pretest means	145.28	170.46	170.51	155.86	165.00
Posttest means	165.17	173.64	181.94	152.76	173.47
Realism scores					
Number of areas (increase)	0	1	2	0	1

Test showed an increase in positive attitudes, significant at the .05 level for the total group. This confirms the results on the Classroom Integration Inventory that teachers were more accepting of the exceptional following involvement in lecture-discussion

workshops. The combination of instruments provides a greater ability to measure the specificity of attitudes than do the rating scales.

Jordan and Proctor (1969) used two of these devices, the Classroom Integration Inventory and the General Information Inventory, in a study of the effects of knowledge and experience on teacher attitudes toward the classroom integration of exceptional students. The General Information Inventory was modified by the ommission of the three essay questions and six items which were judged to be out-dated or non-valid. The sample included student teachers, ancillary personnel, regular teachers and special class teachers randomly selected from 20 elementary schools. The amount of academic credit in special education courses was the only factor which had a significant effect on the Classroom Integration Inventory rating. Experience with exceptional students, academic credit in special education, and experience giving consultation were found to have a significant relation to the General Information Inventory scores. Neither the amount of teaching experience nor the presence or absence of special education in a school affected knowledge of or attitude toward classroom integration. These results confirm Kvaraceus's (1956) findings that level of knowledge correlates with level of acceptance. The Classroom Integration Inventory also provides a comparative index between exceptionalities, and within an exceptionality, by severity.

Rucker-Gable Educational Programming Scale. The Rucker-

Gable Educational Programming Scale (RGEPS) (Rucker & Gable, 1973) consists of 30 unlabeled behavioral descriptions of students actually identified as learning disabled, mentally retarded, or emotionally disturbed. Respondents select the appropriate educational placement for each child on a continuum from regular class to placement outside public education.

Gillung (1975) and Gillung and Rucker (1976) reported use of the RGEPS and a modified version which included appropriate labels to investigate the effects of labels, experience, and location (urban or suburban) on placement decisions of regular and special educators. Both regular and special educators were more restrictive in placing labeled students. Urban regular educators were more restrictive in their placements than suburban regular educators. Special educators with more than seven years experience were significantly more restrictive in their placement recommendations.

A Classroom Integration Scale. Berryman and his associates (1980) developed a scale to measure attitudes toward mainstreaming. The authors established the following criteria for such an instrument:

1. The instrument should be as short as possible, such that administration time would not be a deterrent to its use;
2. The instrument should be useful with subjects other than educators of exceptional children;
3. The instrument should be easy to administer, requiring no extensive instructions or trained examiners;

4. Evidence should be available of satisfactory validity;

5. Evidence should be available of satisfactory reliability, (Berryman et al, 1980, p. 200).

Validation of the 18-item Likert scale with 160 regular and pre-service educators produced an adjusted split-half reliability of .92, $p = .01$. Four factors were identified: 1) learning capability, 2) general mainstreaming, 3) severe disability, and 4) social behavior. Based on these results, ability to profit from education and acceptable social behavior will correlate with teacher acceptance of handicapped students.

Summary. Four scales measuring knowledge of and attitude toward classroom integration--the General Information Inventory (GII) and the Classroom Integration Inventory (CII), (Haring et al, 1958), the Rucker-Gable Educational Placement Scale (RGEPS) (Rucker & Gable, 1973), and a classroom integration scale (Berryman et al, 1980) were reviewed. While the GII, and RGEPS do provide some comparative information across disabilities, these four instruments are situation specific in measuring only acceptance of the handicapped in certain educational settings.

Unidimensional Attitude Scales

Two attempts to develop a unidimensional, general measure of attitudes toward the exceptional have been made, the Attitude Toward Disabled Persons Scale (ATDP) (Yuker et al, 1960), and the Attitude Toward Handicapped Individuals Scale (ATHI) (Lazar et al, 1975; Lazar et al, 1976).

The Attitude Toward Disabled Persons Scale. In an effort to provide a measure of attitudes toward the exceptional applicable across settings, Yuker and his associates (1960) developed the Attitude Toward Disabled Persons (ATDP) Scale, which is a twenty-item Likert scale with each item scored on a five-point scale. The ATDP has a median reported reliability of .73 (Conine, 1969, p. 279). Studies using the various forms (O, A and B) of the ATDP (Antonak, 1980a; Conine, 1969; Higgs, 1975; Wilson & Alcorn, 1969: Yamamoto & Wiersma, 1967) have not found consistent correlations between experience, contact, race, age, religion, level of education, teaching experience, self-esteem, or tolerance and scores on the ATDP. Wilson and Alcorn (1969) used the ATDP in conjunction with a study of the effects of simulation of disability on attitudes toward the exceptional, which will be discussed later. The authors concluded that the ATDP was not sufficiently sensitive to register the changes which were suggested in experimental subjects' narrative reports.

This conclusion is supported by Speer's (1976) study of the effects of student teaching on selected attitudes of elementary and combined elementary-special education pre-service teachers. Speer found no significant differences between regular and special education student teachers on the ATDP or the Minnesota Teacher Inventory (MTAI), nor were there any significant changes in the ATDP following student teaching.

Antonak (1980a) conducted a comprehensive psychometric

analysis of the ATDP-O, finding that a response bias probably existed as only five of the 20 items were "positive" and three of these five did not discriminate between high and low scorers. Two other items also failed to discriminate adequately. A factor analysis demonstrated that the ATDP-O is not unidimensional, but includes at least two factors: 1) social-compassion, and 2) personal-insecurity (Antonak, 1980a, p. 173). Antonak (1980a, p. 171) also found that age, sex, educational level, professional specialization, and frequency of contact did not contribute significantly to the prediction of the attitude score, and that intensity of contact with the disabled accounted for only 4% of the variance in the ATDP-O scores. Thus, Antonak (1980a) recommended against use of the ATDP scales.

The Attitude Toward Handicapped Individuals Scale. Due to changes in terminology which restrict the use of the term "disabled" to certain categories of physical impairment, Lazar (cited in Stodden et al, 1976) developed the Attitude Toward Handicapped Individuals (ATHI) Scale, a modification of the ATDP. The ATHI was found to correlate highly with the ATDP ($r = .802$, $p = .01$) and to have good test-retest reliability ($r = .732$, $p = .01$) with a two week interval.

Studies using the ATHI (Lazar, Haughton & Orpet, 1977; Lazar et al, 1975; Lazar et al, 1976; Parker & Stodden, 1977; Sigler & Lazar, 1976) have explored variables believed to be related to attitude toward the handicapped, including course work, self-

concept, locus of control, self-esteem, age, sex, teaching experience, and amount of education. All of these variables were found together to predict only 7% of the total ATHI scores, and none of the correlations were significant (Sigler & Lazar, 1976).

Summary. The ATDP and the ATHI are both Likert scales, which produce a single score defining attitude toward the diaabled or handicapped. This single scale has been found to have inadequate psychometric properties (Antonak, 1980a), and to be insufficiently sensitive to measure changes in attitude (Wilson & Alcorn, 1969). In addition, these scales produce a global score covering attitude toward all handicapped persons, yet evidence from the rating scale studies (Badt, 1957; Jones & Gottfried, 1962; Kingsley, 1967; Kvaraceus, 1956; Orlansky, 1979; Warren et al, 1964) indicates that the different areas of exceptionality do elicit different evaluative responses, and that there are different factors involved in these attitudes.

Multidimensional Attitude Scales

Approaches to multidimensional scales measuring attitudes toward the handicapped have taken two major courses: 1) scales designed to measure affective and cognitive dimensions of attitudes toward a single exceptionality (Efron & Efron, 1967; Harth, 1971), and 2) scales measuring attitude across categories of exceptionality, which are then statistically analyzed to identify clusters or factors (Antonak, 1980b; Greer, 1975; Guskin, 1963; Jones, 1874; Jones & Gottfried, 1962; Tringo, 1970).

Scales Measuring Attitude Toward a Single Exceptionality. In one effort to develop an instrument sensitive to various factors of attitude toward the handicapped, Efron and Efron (1967) used a 70-item Likert scale to test knowledge of and attitudes toward the educable mentally retarded. Two hundred thirty-five subjects, including special educators, regular educators, special and regular education preservice students, non-education students, and persons in other occupations completed the questionnaire. Six factors, in addition to a measure of factual knowledge, were identified: I. Segregation via Institutionalization, II. Cultural Deprivation, III. Non-condemnatory Etiology, IV. Personal Exclusion, V. Authorianism, and VI. Hopelessness. All factors except III and IV were found to discriminate between special teachers and preservice teachers, and people in general education. For factors I and II, and the factual knowledge scale, occupational subgroup membership was associated with 11% to 12% of the score variance. The authors also concluded that teachers of the retarded were less authoritarian, less inclined to segregate and institutionalize the retarded, more accepting of contact with the retarded, more inclined to ascribe retardation to cultural deprivation, and had more factual information than regular educators and non-educators. This confirms the need for factoral scales to measure attitudes toward the handicapped, and also the conclusion of Kvaraceus (1956) that knowledge and acceptance are correlated.

In another effort to provide a more sensitive and multi-

dimensional measure, Harth (1971) used the issues found relevant to the study of racial attitudes as a construct in developing a scale to measure attitudes toward the mentally retarded. Using the resultant scale to compare general and special education students, Harth (1971) found that special education students held significantly ($p = .05$) more positive attitudes toward the retarded, were more willing to decrease social distance, and were more positive about the private rights of the retarded. No significant differences were found on the subscale measuring the attitudes toward the integration of the retarded into regular classes. Finally, Harth (1971) concluded that attitude measures developed to sample attitudes toward minority groups provide a useful construct for the development of measures of attitudes toward the handicapped.

Kennon and Sandoval (1978) used Harth's scale to amplify on previous findings of a positive attitude toward the retarded, and to explore the effect of minority group membership and of experience with the retarded on respondents' attitudes toward the retarded. Subjects were experienced regular and special education teachers. Minority teachers of the retarded gave significantly higher attributions of overfavorable characteristics to the retarded than other teachers, while white teachers of the retarded were significantly more willing to decrease social distance with the retarded. When regular teachers were re-grouped according to the amount of contact with the retarded, those with more experience were found

to be more positive about integration, more willing to decrease social distance, and less prone to subtle derogatory beliefs. The authors note that the finding does not permit an inference of causality, as respondents holding favorable attitudes may have sought additional contacts with the retarded. The scale did not differentiate between regular and special educators, in contrast to Harth's (1971) results in studying teacher candidates. However, the scale does provide for measurement of both intensity and differentiation of attitudes toward the retarded.

Cross-Categorical Scales of Attitude Toward the Handicapped. In one of the rating studies (Jones & Gottfried, 1962), a cluster analysis was used to identify three clusters in attitudes toward exceptional children:

1. Positive-Negative Empathy Arousal, including deaf, blind, emotionally disturbed, and delinquent.
2. Mild-Extreme Dependency, including the partially seeing, hard of hearing, and the trainable mentally retarded.
3. High-Low Intelligence, with the gifted and mentally retarded at opposite poles (Jones & Gottfried, 1962, p. 376).

These three clusters were found to include most of the ratings, with the exception of the ratings of the chronically ill and the speech impaired.

Additional evidence for the need to develop measures of attitude toward the exceptional which include multiple dimensions is provided by Guskin's (1962) study of the dimensions of judged

similarity among deviant types. College students were presented with labels and brief descriptions of 10 children, one typical and nine deviant types. Two alternating forms of the test materials, involving a different order of presentation, and slightly different descriptions were randomly assigned to subjects. Each child was paired with all the others, making 45 pairings, for subjects to judge the similarity of the two children on a nine-point scale. Results showed that Forms 1 and 2, though similar, ($r = .742$, $p = .01$), were not interchangeable, and the data were treated separately. Median similarity judgements for the groups studied were converted to scale distances, and a centroid method of factoring used. Five factors were identified on Form 1 and four factors on Form 2. Table 6 presents the factors identified, and

Table 6

Factors In Deviance Identified By Cuskin (1963) And Deviant Types Most Associated With Each Factor

Form I	Form II
I. Abnormal v. Typical developmental defect, unpopular vs. normal, physically handicapped	I. Abnormal vs. Typical feebleminded, autistic vs. normal, physically handicapped
II. Threatening vs. Fearful delinquent vs. autistic, emotionally disturbed	II. Mental vs. Social Deviant feebleminded, developmental defect, vs. delinquent, low social status
III. Academic vs. Social Ineptness developmental defect, educational inadequacy v. unpopular low social class	III. Dangerous vs. Helpless feebleminded, delinquent vs. emotionally disturbed, physically handicapped
IV. Tough vs. Weak (Physically) delinquent, low social class vs. physically handicapped	IV. Mental Oddness vs. Slowness autistic vs. educational inadequacy
V. Severe mental defect, feebleminded.	

the deviant types most associated with each factor. These results confirm that a single score does not provide a sufficiently differentiated measure of attitudes toward the exceptional, nor do simple rating scales provide an adequate measure of comparative responses to different forms of exceptionality.

Greer (1975) used the forms of the Disability Opinion Survey, a Likert scale, applying to 1) physical and mental disabilities, and 2) to alcoholism, to compare attitudes of special educators toward these two groups. The Disability Opinion has three subscales, two developed by factor analytic procedures: 1) Special Consideration, measuring perceived need for special consideration or privileges for the disabled; 2) Internal-External, measuring the disabled person's perceived locus of control; and 3) Treatment, measuring perceived effectiveness of treatment, (Greer, 1975, pp. 182-183). Greer (1975) found that special educators saw less need for special consideration for the physically and mentally disabled than for the alcoholics, but saw treatment as significantly less effective for alcoholics. These findings suggest that context, including perceived effectiveness of treatment, is an important factor to measure in studying attitudes toward the exceptional.

Tringo (1970) used a nine-item Disability Social Distance Scale to study the possible existence and composition of a hierarchy of preference toward disability groups. Subjects included high school students; education, physical therapy, and

other college students; graduate students; and rehabilitation workers. The high school students were found to be significantly less accepting of all disability groups than all other subjects. Females and persons with more education were significantly more accepting of all disability groups. The hierarchy of disability preference was identified as follows: 1) ulcer, 2) arthritis, 3) asthma, 4) diabetes, 5) heart disease, 6) amputee, 7) blindness, 8) deafness, 9) stroke, 10) cancer, 11) old age, 12)paraplegic, 13) epilepsy, 14) dwarf, 15) cerebral palsy, 16) hunchback, 17) tuberculosis, 18) ex-convict, 19) mental retardation, 20) alcoholism, and 21) mental illness (Tringo, 1970, p. 300).

Jones (1974) further investigated the hierarchical structure of attitudes toward the exceptional. College students (132 men and 132 women) completed a 78-item social distance questionnaire involving six interpersonal situations and 13 categories of exceptionality and non-exceptionality. A hierarchical factor analysis of the data revealed a general factor of attitudes toward the disabled. This general factor was further differentiated into attitudes toward the physically disabled, the psychologically disabled, and the mildly retarded-nondisabled. The gifted emerged as a separate factor. The results also indicated that, when severity of exceptionality is included in a study (mildly vs. severely retarded, partially seeing vs. blind, hard of hearing vs. deaf), variations in attitude by degree of severity do exist.

Antonak (1980b) used ordering-theoretic analysis to

investigate nonlinearity of the hierarchy of attitudes toward the exceptional. One hundred twenty-two graduate students responded on a 22-item Likert scale measuring attitudes toward school and community integration of eleven categories of exceptionality and the normal. Antonak (1980b) found that acceptance of community integration of the gifted, normal, communication disordered, hearing impaired, visually impaired and learning disabled was equivalently positive, and that such acceptance of community integration was a prerequisite for acceptance of integration of all other exceptionalities. Further, acceptance of the physically disabled was a prerequisite for the acceptance of the mentally retarded, chronically ill, and severely and profoundly impaired. Finally, community integration of the severely and profoundly impaired and of the behaviorally disordered received markedly lower acceptance scores. In school settings, acceptance of integration of the normal was a prerequisite to acceptance of all exceptionalities. In addition, Antonak (1980b) found that exceptionalities requiring environmental modification (the physically disabled, chronically ill, hearing and visually impaired, and communication disordered) are viewed more favorably in terms of school integration than those exceptionalities requiring major program modification (mentally retarded, behaviorally disordered, and severely and profoundly impaired). Thus, school and community integration involve different kinds of acceptance, and the type of treatment affects acceptance, confirming the findings of Greer (1975).

Summary. Two scales measuring various dimensions of attitude toward the mentally retarded (Efron & Efron, 1967; Harth, 1971) and several studies exploring factors involved in attitudes and hierarchical structure of attitudes across categories of exceptionality (Antonak, 1980b; Greer, 1975; Guskin, 1963; Jones, 1974; Jones & Gottfried, 1962; Tringo, 1970) were reviewed. Results of these studies confirm that a unidimensional scale does not provide an adequate measure of attitudes toward the exceptional, and that a single score does not validly represent attitudes across categories of exceptionality. In addition, experience with the handicapped (Efron & Efron, 1967), sex (Tringo, 1970), and setting--school or community (Antonak, 1980b) were shown to correlate with attitudes toward the exceptional. Results concerning the relationship between age and attitudes toward exceptional children were contradictory.

Semantic Differential

Several authors selected a semantic differential to measure attitudes of peers (Gottlieb, Cohen & Goldstein, 1974; Jaffe, 1967), and various adult groups (Gottlieb & Corman, 1975; Greenbaum & Wang, 1965; Hughes, Kauffman & Wallace, 1973; Panda & Bartel, 1972) toward the exceptional. In addition, one study (Gottlieb & Siperstein, 1976) included a semantic differential in an investigation of the effect of attitude referent specificity and response format on expressed attitudes toward the mentally retarded.

Attitudes of Peers. Jaffe (1967) used a semantic differential

(11 evaluative scales and four scales to represent a strength-activity factor) in combination with Gough's Adjective Check List and a Social Distance Scale in a study of the attitudes of high school seniors toward the mentally retarded. Only the score on the adjective check list, measuring a cognitive dimension of attitude, was significantly different for students having contact and students having no contact with the mentally retarded. The author suggested that the evaluative scores from the semantic differential were a measure of the affective rather than the cognitive aspects of attitude, and that this affective aspect might not be as readily changed by contact. The author (Jaffe, 1967) also found significant but low positive correlations among the measures used (r ranging from .20 to .58).

The attitudes of younger students, third through sixth grades, toward the mentally retarded were studied by Gottlieb and associates (1974). Ten adjective pairs, separated by a 5-interval scale found more appropriate for young subjects, were used to respond to the concepts: "I Am," "I would Like To Be," "Kids In My Class Are," "Mentally Retarded Children Are," and "Mentally Retarded Children Think They Are." Subjects were enrolled in five schools which ranged from having no classes for EMR students through housing segregated classes to full integration of EMR students. An analysis of variance confirmed that the mentally retarded were viewed as significantly less positive than classmates, and that attitudes toward the mentally retarded were significantly more

positive in schools without any EMR classes. This contradicts findings with adults that contact with the exceptional correlates with more positive attitudes (Jaffe, 1967; Kennon & Sandoval, 1978). Gottlieb and associates (1974) did not use the semantic differential as a three-factor measure, but collapsed responses into a single score, thus possibly losing information.

Semantic Differential Studies with Adult Subjects. Greenbaum and Wang (1965) used a semantic differential to measure attitudes toward and connotative meaning to mental retardation and mental illness with 346 volunteer adult respondents selected by ad hoc purposive sampling from the following groups; a) 100 parents of mentally retarded children, b) 105 professionals--vocational counselors, high school special education teachers, school psychologists, and physicians, c) 68 executives in business, i.e., potential employers, and d) 63 paraprofessionals working with the retarded. The study also evaluated relationships between the variables of age, sex, social class, education, and the measured attitudes. The results across groups are summarized in Table 7.

Table 7

Factor Mean Values By Group (Greenbaum & Wang, 1965)

Subject Group	Mentally Retarded			Mentally Ill		
	Evaluation	Activity	Potency	Evaluation	Activity	Potency
Paraprofessional	4.20	4.80	4.59	3.87	4.02	4.12
Parents	4.37	5.15	4.72	3.75	4.13	4.30
Professionals	4.88	5.18	5.06	3.76	4.04	4.09
Employers	5.33	5.51	4.91	4.03	4.05	4.22

1=positive, 4= neutral, 7=negative

The differences in attitude toward and meaning of the retarded were significant for all groups. The mentally ill were rated more positively than the mentally retarded on all three factors by all four groups. In examining the relationships between class and attitudes toward the retarded, lower-class respondents were found to be significantly ($p < .01$) more positive than middle- or upper-class respondents. Subjects with less than a high school education were significantly more positive than other groups. Though no other educational differences were significant, there was a consistent progression toward the negative pole with more education. Sex was found to be a significant variable across the total group, but this was thought to be spurious as many of the women were mothers of retarded children. Within the employer group, about equally male and female, there were no differences by sex. Differences by age were not significant, though the data suggested an inverse relationship. These results concerning education contrast with those of Tringo (1970) that showed increasingly positive attitudes with increasing education. The results also indicate that the semantic differential technique can be used to measure attitudes toward the handicapped.

Panda and Bartel (1972) extended the use of the semantic differential to examine and compare perceptions of several categories of exceptionality by special and regular educators. The subjects were 20 special educators and 20 regular educators. The results for the nine categories of exceptionality, the gifted,

and the normal for each group across the three factors of the semantic differential are shown in Table 8. Using an analysis of

Table 8

Mean Scores On The Semantic Differential For Concepts By Groups and Factors (Panda & Bartel, 1972)

Teacher Background	Normal	Gifted	Mentally Retarded	Emotionally Maladjusted	Delinquent	Deaf	Blind	Epileptic	Culturally Deprived	Speech Impaired	Crippled
	Student Group										
Evaluation Factor											
Special	4.86	5.45	3.63	3.33	2.80	4.05	3.96	3.45	3.12	3.85	3.83
Regular	4.64	5.01	3.73	3.60	3.16	4.15	4.18	3.65	3.12	3.83	3.81
Potency Factor											
Special	4.16	4.53	3.08	3.70	4.33	3.80	3.93	3.78	4.15	3.83	3.36
Regular	4.40	4.43	3.83	4.33	4.75	3.96	3.80	3.66	4.13	3.88	3.50
Activity Factor											
Special	5.03	6.40	2.25	3.71	4.52	3.65	4.18	3.93	3.32	3.63	3.85
Regular	4.69	5.69	3.43	4.81	4.83	3.88	3.55	4.20	3.53	3.75	3.40

7=positive; 4=neutral; 1=negative

variance on each factor, differences between concepts were found to be significant on all three factors. Only on the activity factor were significant differences found between regular and special educators, with special educators perceiving the mentally retarded, emotionally disturbed, epileptic, and speech impaired as comparatively more active than regular teachers. Thus, a semantic differential was shown to distinguish between perceptions of various categories of exceptionality, and hence to be appropriate for such cross-concept studies. The results across exceptionalities support those of Badt (1957) and Guskin (1963).

Hughes, Kauffman & Wallace (1973) used 15 adjective scales with high evaluative factor loadings to assess the attitudes of elementary school teachers to learning disabled, educationally handicapped, maladjusted, problem, emotionally disturbed, and

behaviorally disturbed children. An analysis of variance confirmed significant differences by label (with acceptance ranked in order listed) and by age of respondent (teachers over 30 were more positive toward all labels). The authors noted that "the implications of this findings may be that classroom teachers view as more positive those labels that indicate an academic deficit which they feel equipped to handle," (Hughes et al, 1973, p. 288). This contrasts with the findings of Greenbaum and Wang (1965) that there was an apparent inverse relationship between age and attitude.

Gottlieb and Corman (1975) included sixteen semantic differential scales in a 48-item scale used to measure public attitudes toward mentally retarded children. Of these, 10 scales had high factor loadings on the evaluative factor, one had a high loading on the potency factor, and five did not have factor loadings from previous studies. The remainder of the instrument included 25 Likert-type attitude items, and seven items which asked the respondent what proportion of retarded children he believed were characterized by a given statement. The questionnaires were administered by 19 students to 430 (out of 456 solicited) adults, selected by the students. Characateristics of the sample are summarized in Table 9. The results were factor analyzed and four main factors were identified: 1) Positive Stereotypes, 2) Segregation in the Community, 3) Segregation in the Classroom and 4) Perceived Physical and Intellectual Handicap. The semantic

Table 9

Characteristics of the Sample Studied by Gottlieb and Corman (1975)

Characteristics		% of Sample
Sex:	male	42.5
Age:	20-30	50
	30-50	32
	50	18
Education:	high school	37
	completed high school	31
	college graduate	32
Married		57
Children in school		53

differential items all showed high factor loadings for Positive Stereotype, not surprising as the majority and evaluative factor loadings in previous studies. Failure to include an equal number of scales representing the Potency and Activity factors may have lost valuable definition of the Perceived Physical and Intellectual Handicap factor in this study, and may have introduced a response set bias. The authors (Gottlieb & Corman, 1975) found that females with high school and college education had a significantly more positive stereotype than males with the same education ($p < .05$). Younger people, regardless of sex or education were more likely to reject the positive stereotype, ($p < .05$), while older respondents were more in favor of segregating the retarded child in the community ($p < .001$) and in the classroom ($p < .01$). People who reported no contact with a retarded person were more favorable toward segregation ($p < .01$), especially if they were high school graduates ($p < .05$). Male college graduates with no contact were significantly more in favor of community segregation ($p < .05$) than female college graduates with no contacts. College graduates and people with less than a high school diploma scored higher

($p < .05$) on Factor 4, Perceived Physical and Intellectual Handicap, than high school graduates. Finally, parents of school-aged children were found to be significantly more favorable toward the segregation of retarded children in the community ($p < .001$) and in the classroom ($p < .05$). Gottlieb and Corman's (1975) findings of separate factors related to school and community segregation correspond to Antonak's (1980b) findings. The results also confirm previous findings that such attitudes are situation-specific, (Jones, 1974).

Attitude Referent Specificity. Gottlieb and Siperstein (1976) investigated the effect of attitude referent specificity and response format on subjects' expressed attitudes toward the mentally retarded. Four attitude instruments were used: 1) a 6-item 5-point Likert scale developed by factor analytic procedures; 2) a 13-item Thurstone scale; 3) a semantic differential using 16 bi-polar adjectives; and 4) a 32-item adjective checklist. Seventy-five female undergraduates were randomly assigned to five treatment conditions, rating

> 1) a mentally retarded person, 2) a severely retarded child between the ages of 9 and 12 residing in an institution, 3) a mildly retarded child between the ages of 9 and 12 attending a special class, 4) a severely retarded young adult who was just released from an institution, and 5) a mildly retarded young adult who just completed a vocational education

program, (Gottlieb & Siperstein, 1976, p. 377).

Results for differences by severity of referent were significant on all scales with attitudes to the mildly retarded being more positive ($p < .001$). Further analyses indicated that the Likert scale and the semantic differential distinguished attitudes toward mildly retarded from attitudes toward retarded person ($p < .05$). Responses to all severely retarded referents were significantly more negative than attitudes toward retarded person on the Likert scale ($p < .02$), Thurstone scale ($p < .001$), and the adjective checklist ($p < .02$). It should be noted that no attempt was made to use the three-factor capability of the semantic differential. Additionally, all the subjects were female, and all but two of the ratings (severely retarded child and adult on the checklist) were positive. Previous studies (Gottlieb & Corman, 1975; Tringo, 1970) have suggested that women hold more positive attitudes than men toward the retarded.

Summary. Seven studies (Gottlieb & Corman, 1975; Gottlieb et al, 1974; Gottlieb & Siperstein, 1976; Greenbaum & Wang, 1965; Hughes et al, 1973; Jaffe, 1967; Panda & Bartel, 1972) using a semantic differential to measure attitudes toward the exceptional were reviewed. Studies of peer attitudes toward the mentally retarded were found less positive attitudes among younger students with contact than without (Gottlieb et al, 1974), though attitudes were more positive with contact among 12th grade students (Jaffe, 1967). Further studies confirmed differences in perception of different

categories of exceptionality (Greenbaum & Wang, 1965; Hughes et al, 1973; Panda & Bartel, 1972), variations in attitude correlated with age (Hughes et al, 1973; Gottlieb & Corman, 1975) sex (Greenbaum & Wang, 1965; Gottlieb & Corman, 1975), education (Gottlieb & Corman, 1975; Greenbaum & Wang, 1965), and social class (Greenbaum & Wang, 1965). In addition, Gottlieb and Siperstein (1976) confirmed that a semantic differential is sufficiently sensitive to measure differences in attitude by severity of the handicapping condition.

Situational Variations in Attitude

Evidence (Antonak, 1980b; Gottlieb & Corman, 1975) suggests that attitudes toward the exceptional vary according to the situation. Major (1961) also suggested that attitudes toward the handicapped vary in terms of the meaning of the acceptance needed in any situation, including parental acceptance of what a child a child can do or is doing at the present, a teacher's personal attitude toward the child, a teacher's ability to meet the needs of the child without interfering with other responsibilities, and finally, a child's knowledge and use of available means to accomplish today's tasks. This view suggests the need to study attitude toward and acceptance of exceptionality within a situational context.

MacDonald and Hall (1969, 1971) addressed this problem in studies of the perception of disability by the nondisabled. In each study, subjects were asked to rate a series of disabilities

in terms of how debilitating they would be across several dimensions. Subjects were also given the Rotter Locus of Control Scale. Details of the two studies are shown in Table 10. The authors

Table 10

Details of Studies of Perception of Disability by MacDonald and Hall (1969, 1971)

	1969	1971
Subjects	50 graduate students, 30 males, 20 females	479 undergraduates, 211 males, 268 females
Disabilities Rated	Internal disorders, sensory disorders, disfigurements, amputations, emotional disorders. Total = 15.	Internal disorders, sensory disorders, cosmetic disorders, emotional disorders. Total = 14.
Dimensions rated	Vocational, marital, social parental, familial, personal	Feelings about self, social relationships
Described Situation	28 year old male head of household, high-school graduate, father of 2.	Self and other.
Rating Scale	4-point scale from extremely debilitating to not much debilitating.	10-point scale from completely debilitating to hardly debilitating.
Other Instrumentation	Rotter Locus of Control Scale	Rotter Locus of Control Scale Personal history sheet

found that the disabilities were generally perceived as less debilitating socially than in other areas. Emotional disorders were seen as more debilitating by the internally controlled, while externally controlled subjects rated physical disabilities as more debilitating. Table 11 summarizes the results of the 1969 study. These results indicate that the various disabilities also are seen as having different meaning in different situations. Cosmetic disabilities were perceived as more debilitating overall; cosmetic and sensory disabilities were most debilitating personally; internal disabilities were most debilitating vocationally; and emotional

Table 11

Mean Debilitation Ratings* Assigned Categories of Disabilities In Various Dimensions. (MacDonald & Hall, 1969)

Disability Category	Vocational	Martial	Social	Parental	Familial	Personal
Internal	7.32	6.40	5.04	6.76	6.54	6.98
Sensory	5.96	4.76	5.44	5.94	5.82	6.16
Cosmetic	13.26	12.04	10.80	12.04	11.90	15.82
Emotional	7.74	8.86	8.98	10.10	9.78	8.98

*A Higher Rate Indicates Greater Debilitation

disorders were most debilitating in the parental role. These results confirm previous findings of attitude differences by situation (Antonak, 1980b; Gottlieb & Corman, 1975), and suggest the need for specifying the situation in measuring attitudes toward the exceptional.

Summary

The studies reviewed provide evidence that attitudes toward the handicapped are more negative than attitudes toward the normal and gifted, and that attitudes vary with the type of exceptionality, and the situation. The studies also identified a number of variables correlated with these attitudes, as summarized in Table 12. Only eight of the studies included special educators or other professionals in the field, and the results of the studies are unclear. Special educators were usually found to follow the pattern demonstrated by regular educators, except in being more positive toward their own area of expertise. However, Greenbaum and Wang (1965) found the professionals to be significantly less positive than paraprofessionals and parents, and this was confirmed

Table 12

Variables Found To Correlate With Attitudes Toward The Exceptional
+ = positive relation; - = inverse relation; ? = effect uncertain

Study	Sex (female)	Age	Location (suburban)	Educational level	Teaching Experience	Special education	Social status/ occupation	Locus of control	Knowledge or contact
Evaraceus (1956)									+
Haring et al (1956)									+
Jones & Gottfried (1962)						+			
Greenbaum & Wang (1965)	?	?		-		-	-		
Efron & Efron (1967)						+	+		+
Jordan & Proctor (1969)					No effect	+			+
MacDonald & Hall (1969, 1971)								+	
Trippo (1970)	+			+					
Barth (1971)						+			
Canda & Bartel (1972)						+			
Hughes et al (1973)		+							
Gottlieb & Corman (1975)	+	-		Mixed					+
Gillung & Rucker (1976)			+			Mixed			+
Vernon & Sandoval (1978)						+			+

by Gillung (1975) and Gillung and Rucker (1976) with special educators having more than seven years experience.

Attitudes of Professionals

Several additional studies (Semmel, 1959; Harasymiw et al, 1976; and Flynn, 1978) further explored the attitudes of regular and special educators, by making the implicit assumption that special educators should be included in the study as a comparison group. One study (Polonsky, 1961) compared the attitudes of psychiatric technicians and lay persons. Only one study (Smith, 1975) focused exclusively on the attitudes of special educators toward exceptional students.

Semmel (1959), using a scale developed for the purpose

(split-half reliability, r between .79 and .96), compared attitudes and factual information concerning the mentally retarded held by 40 regular and 27 special education teachers. The special teachers were found to have significantly more correct information ($p = .001$) than regular teachers. No significant differences were found between the attitudes of regular and special teachers.

Polonsky (1961) used the Mental Deficiency Misconception Scale to compare the beliefs of psychiatric technicians and a group of lay persons. The author found that the technicians held as many negative misconceptions about mental deficiency as the lay group. These results contradict those of Greenbaum and Wang (1965) that paraprofessionals' attitudes were more positive than those of the other groups studied.

Harasymiw and associates (1976) reported the results of the use of the General Social Distance Scale (GSDS) or the Perception of Social Closeness Scale (PSCS) with eight groups, summarized in Table 13, over a period of seven years. The attitudes of all

Table 13

Studies of Attitude Reported by Harasymiw et al (1976)

Group #	N	Group Description	Scale Used
1	340	High ability high school juniors	GSDS
2	431	High school students (32% black)	GSDS
3	243	Rehabilitation and special education teachers and student teachers	GSDS
4	170	High school students	GSDS
5	352	Regular teachers	GSDS
6	48	3rd, 5th grade students (95% black)	PSCS
7	72	College special education majors	GSDS
8	22	3rd grade students	PSCS

groups were found to be highly correlated. The disability acceptance order was physical, sensory, psychogenic, and social disability. The mean social distance scores assigned by educators to certain of the disabilities are shown in Table 14. It should be

Table 14

Mean Social Distance Scores Assigned to Certain Disability Categories by Educators

Disability	Regular Educators	Special Educators	Special Education Preservice
Blindness	---	.87	.89
Cerebral palsy	---	1.15	1.16
Deafness	---	.91	.87
Epilepsy	---	1.10	.85
Mental illness	.70	1.50	1.13
Mental retardation	.60	1.63	1.15

noted that special educators were consistently less open to social closeness than either regular teachers or special education preservice teachers. These results contradict those of Kennon and Sandoval (1978) that special educators and regular educators with contact with the retarded were more willing to decrease social distance. The order of preference reported by Harasymiw and associates (1976) supports that found by Tringo (1970).

Flynn (1978) investigated the possibility of bias affecting the ratings of educable mentally retarded students by regular and special teachers. Regular and special education teachers used the Flynn Elementary School Adjustment Scale, a multiple choice behavioral observation scale, to rate 61 educable mentally

retarded students. These students were randomly assigned to a group of 30 and a group of 31 for a discriminant analysis. Four items were found to discriminate reliably between the ratings of special and regular educators. Special educators consistently rated students higher on their ability to evaluate their own work, their ability to follow directions, their participation in class discussions, and their curiosity about novel situations. These results seem to contradict the previously cited results.

Smith (1975) established reference norms for a 75-item scale measuring attitudes toward the mentally retarded in five clusters: 1) characteristics of the mentally retarded, 2) knowledge of the field of mental retardation, 3) mental retardation as a deviant or hopeless condition, 4) educational programming of the mentally retarded, and 5) vocational potential and social adjustment of the mentally retarded. The normative group consisted of 130 (65%) of the "Fellows" in the Education Division of the American Association on Mental Deficiency. The scale was then used with 646 (50%) of the South Carolina teachers of the educable mentally retarded. The teacher group differed significantly ($p < .01$) from the normative group in their attitudes on all five clusters.

Summary

Taken as a whole, the results of studies by Greenbaum and Wang (1965), Semmel (1959), Polonsky (1961), Harasymiw and associates (1976), and Smith (1975) present a view of special educators whose attitudes are more negative than would be expected.

As the studies were conducted with different subjects, at different times, using different measuring devices which focused on different aspects of attitudes, and different experimental methodology, the need for concern over special educators' attitudes toward special students is strengthened.

Effects of Experience on Attitudes

Interest in attitude differences between regular and special educators has led to studies of the effects of experience with exceptional children on the attitudes of educators (Greenbaum & Wang, 1965; Harasymiw & Horne, 1975; Johnston, 1972; Jordan & Proctor, 1969; MacMillan, Mayers & Yoshida, 1978; Moore & Fine, 1978). Some evidence concerning the effect of experience on these attitudes is indirectly revealed in attitude studies or in studies of integration plans.

Greenbaum and Wang (1965), in a study of attitudes toward the mentally retarded and the mentally ill found that, although paraprofessionals held the most accepting attitudes ($p = .05$), professionals held significantly less positive attitudes than paraprofessionals ($p = .01$) or parents ($p = .10$). The authors suggested that paraprofessionals' attitudes were affected by the need to reduce dissonance between their choice of work and initial unfavorable attitudes.

Jordan and Proctor (1969), in a study of the relationships between knowledge of and experience with exceptional children and attitudes toward classroom integration, found that, while

knowledge increased with experience, positive attitudes did not.

Harasymiw and Horne (1975) provide a direct study of the effects of experience with the handicapped on regular class teachers' attitudes. A pilot integration model was implemented in six schools in a large metropolitan district. Six control schools were selected. In the spring of the year, a 52-item questionnaire featuring Likert and Social Distance type questions was administered to the teachers in five of the six experimental schools and all of the control schools. The scale had acceptable validity and test-retest reliability after a one-day interval, ($r = .89$). The authors found that teachers in the experimental schools showed a significantly higher acceptance score than teachers in control schools, indicating that contact with the handicapped can have a positive effect on attitudes. No significant differences in attitudes by sex were found in experimental or control schools. The level of education was found to be inversely related to attitude. Positiveness of attitude did not vary directly with the number of special courses taken. Also, the hypothesis that positiveness of attitude would vary inversely with the year of a degree was only partially confirmed. The authors suggests that the uncontrolled variable of age may have confounded some of these results.

These findings have been extended in other studies of regular and special teachers' attitudes toward integration programs (Johnston, 1972; MacMillan et al, 1978; Moore & Fine, 1978);

Shotel, Iano & McGettigan, 1972). Table 15 summarizes information concerning subjects and instrumentation used in these studies. No

Table 15

Subjects and Instrumentation in Studies of the Effects of Mainstreaming

	Shotel et al, 1972	Johnston 1972	MacMillan et al, 1978	Moore & Fine, 1978
Subjects	Teachers in 3 - 3 elementary schools with resource teachers; matched control schools	4 schools, 3 with resource programs	Regular class teachers of decertified students	18 of 24 EMH teachers, 21 of 25 LD teachers, 22 of 24 regular teachers
Instruments	13-item questionnaire: placement, potential, teacher competencies	10-item Likert scale on integration	Questionnaire re success of mainstreamed students	Leary Interpersonal Checklist and 15 multiple choice questions about mainstreaming

validity or reliability data were provided for any of the questionnaires used. The results indicated that teachers had mixed attitudes, being less willing to accept the mentally retarded than other exceptional children (Johnston, 1972; Moore & Fine, 1978; Shotel et al, 1972). Teachers also indicated the need for special methods (Johnston, 1972; Shotel et al, 1972). Teachers reported limited social integration and adjustment by exceptional children, especially the retarded (Johnston, 1972; MacMillan et al, 1978; Moore & Fine, 1978; Shotel et al, 1972). Finally, the results confirmed the existence of different attitudes toward children with different exceptionalities (Moore & Fine, 1978; Shotel et al, 1972). Overall, the authors found that

experience did not have a positive effect on regular teachers' attitudes, though this varied with the degree of support received in the integration program (Shotel et al, 1972).

Programs to Change Attitudes

As integration of exceptional students into regular classes increases, greater attention has been devoted to methods of improving education students' attitudes toward the exceptional (Alper & Retish, 1972; Herr et al, 1976; Lazar et al, 1975; Lazar et al, 1976; Orlansky, 1979; Speer, 1976; Warren et al, 1976; Wilson & Alcorn, 1969). The procedures used in these studies are summarized in Table 16. The results indicated that specific interventions

Table 16

Summary of Procedures in Studies of the Improvement of Students' Attitudes Toward the Exceptional

Authors	Date	Subjects	Instruments	Method
Warren et al	1964	80 sophomores	Ranking of preferences	Lecture-discussion-tour
Wilson & Alcorn	1969	80 undergraduates	ATDP Narrative	Student teaching
Alper & Retish	1972	30 student teachers: 10 each in special, elementary, secondary education.	MTAI	Student teaching
Lazar et al	1975	102 undergraduates	ATHI PSCS TSCS IOI	Class experience
Speer	1976	70 student teachers	ATDP	Student teaching
Herr et al	1976	60 undergraduates in special education, 30 each experimental, control.	Disturbing Behavior Checklist	Camp counseling experience
Orlansky	1979	50 students	Ranking of preference	Active learning vs lecture, two groups alternating.

are necessary to produce positive attitude changes (Herr et al, 1976; Orlansky, 1979; Wilson & Alcorn, 1969), while ordinary class and student teaching experiences are not effective (Alper & Retish, 1972; Lazar et al, 1975; Lazar et al, 1976; Speer, 1976). The only results which do not confirm the absence of measurable effect as a result of ordinary class experiences are Orlansky's (1979), and the use of the alternating treatment design in which eight units were taught, with reversal of treatment following each unit, may have confounded the results as the subjects experienced both treatments several times prior to posttesting. The studies support the efficacy of active learning and experience procedures as a means of producing positive attitude changes.

Programs for improving the attitudes of inservice regular teachers have also been developed and tested (Gay, 1976; Haring et al, 1958). The workshops developed by Haring and associates (1958) have already been discussed. In this instance, a combinationof lecture and small-group discussion was found effective in producting positive attitude change. Gay (1976) investigated the differential effects of a self-contained, self-paced, packaged modular unit (Special Education for Regular Teachers--SERT) and a standard university course on attitudes toward mainstreamed exceptional students. Results were measured by the MTAI and a semantic differential. Both methods were found to produce positive effects on the attitudes of regular teachers. Thus, training has been effective in some instances in improving the attitudes of regular

educators toward mainstream exceptional children.

The Effects of Time, Grade Level, and Location on Special Educators' Attitudes

The effects of time, grade level taught, and location or size of school system on the attitudes of special educators have received little or no attention. Several studies with regular teachers (Day, 1959; Lagana, 1970; Rabinowitz & Rosenbaum, 1960) have indicated that teachers' attitudes, as measured by the MTAI, deteriorate over time. Details of these studies are summarized in Table 17. All the studies showed significantlyly less positive

Table 17

Studies of Change in Teachers' Attitudes Over Time

Authors	Subjects	Lapsed Time	Change
Day (1959)	196 seniors Retest: 135 teachers, 37 not	One year	-20.0 points -1.5 points
	154 intern teachers	Before and after internship	-4.5 points
Rabinowitz & Rosenbaum (1960)	343 of 479 teachers	Three years after student teaching	-20.1 points City teachers: -23.9 points
Lagana (1970)	987 beginning teachers	One Semester	21% - change 5% + change

attitude scores on the second administration, following periods ranging from nine weeks to three years.

Berlin (1965) has suggested that such changes may be due to the unrealities communicated in teacher education, which make initial teaching experiences appear unduly negative. This problem of deteriorating attitudes over time has not been specifically

addressed with special educators. Zucker and Meyen (1975) used the MTAI to investigate the stability of special educators' attitudes over a five year period. Scores on the MTAI, administered three times in five years, were highly correlated, with no significant differences between the means for the three administrations. However, the use of grouped data may conceal a deterioration in the attitudes of individual teachers occuring over time. Gillung and Rucker's (1977) findings that special educators with seven or more years of experience share the lower expectations for labeled students held by regular educators provides some evidence that such deterioration may occur. Smith's (1975) finding that special education teachers held significantly less favorable attitudes than a normative group of Fellows in the American Association of Mental Deficiency also provides confirmatory evidence.

Limited evidence is available concerning the effects of size or location of system, and grade level taught on the attitudes of special educators. Gillung (1976) found that regular educators in urban systems were more restrictive in their placements of students than regular educators in suburban systems, though no similar difference was found when urban and suburban special educators were compared. Stephens and Braun (1980), in a study of regular educators' attitudes toward exceptional children found that primary and middle school teachers were significantly more positive ($p < .01$) toward mainstreaming of exceptional children than teachers

in grades seven and eight. The authors (Stephens & Braun, 1980) also found that educators' attitudes were significantly related to the following: 1) a belief that public schools should educate the exceptional, 2) a belief that exceptional children can become useful citizens, 3) the teacher's confidence in his/her ability to teach the exceptional, and 4) a teacher's exposure to courses in special education. The need for confidence in one's ability to teach the exceptional may explain the lower attitudes at the junior high level where curriculum becomes increasingly content oriented although the special student may still require help with skill deficits.

Thus, the limited evidence available suggests that time, grade level taught, and size or location of the school system are factors which may relate to special educators' attitudes toward exceptional children. However, at present the direction of such relationships cannot be predicted.

Importance of Special Educators' Attitudes

Studies by Blackwell (1972), Stodden and associates (1976), Guerin and Szatlocky (1974), and Mandell and Strain (1978) address the question of the importance of special educators' attitudes.

Blackwell (1972) used a multiple regression analysis to evaluate the contribution of 42 teacher variables to rated teacher effectiveness. Seventy teachers of the trainable mentally retarded completed the MTAI, the Edwards Personal Preference Schedule, and a personal data sheet. Each teacher's supervisor completed a

teacher competency rating scale, on which 28 specific teacher behaviors were rated on a 4-point scale. The only factor found to be significantly related to rated teacher effectiveness was a high score on the MTAI, indicating that a teacher's attitude is highly correlated with rated effectiveness.

Stodden and associates (1976) assessed the relationship between attitudes toward the handicapped and noverbal behavior with educators of special students. The subjects were 60 randomly selected teachers of special needs students who were newly certified or nearing certification. Subjects were given the ATHI and the Nonverbal Behavior Scale, a 6-point Likert self-report scale having face validity and reported reliability of $r = .716$, and a personal data sheet. The authors concluded that accepting-rejecting attitudes toward the handicapped were significantly related to a self-report of accepting-rejecting nonverbal behaviors. Goldberg and Mayerberg (1973), in a semantic differential study of student reaction to nonverbal teacher behavior, using a videotape showing positive, neutral, and negative nonverbal behaviors by the same teacher, demonstrated that 120 randomly selected 2nd and 6th grade students evaluated the positive teacher more positively. Thus, the nonverbal behaviors of special educators, shown to be correlated with attitude, become an important factor in the classroom.

Two studies of mainstreaming (Guerin & Szatlocky, 1974; Mandell & Strain, 1978) included a measure of the attitudes of

special educators as a factor possibly affecting regular educators' attitudes toward a mainstreaming program. Both studies found a positive correlation between the attitudes of the special educators and those of the regular educators. Guerin and Szatlocky (1974) concluded that

> the attitudes of the special teachers appeared to be critical to the regular teacher reaction to the program. . . .This trend was so strong that in one school where two special teachers held opposite attitudes toward the program the regular teachers held attitudes similar to the special teacher who sent them the integrated child (p. 179).

These results suggest that the attitudes held by special educators will serve as models for the attitudes adopted by regular educators on the same staff. With mainstreaming increasing, these attitudes become increasingly important.

Summary of Research on Attitudes Toward the Exceptional

Various techniques for measuring attitudes toward the exceptional were reviewed. These techniques included:

1) rating scales (Badt, 1957; Jones & Gottfried, 1962; Kingsley, 1967; Kvaraceus, 1956; Orlansky, 1979; Warren et al, 1964);

2) measures of projected integration and acceptance of integration (Berryman et al, 1980; Haring et al, 1958; Rucker & Gable,

1973);

3) unidimensional attitude scales including the Attitude Toward Disabled Persons--ATDP--Scale (Yuker et al, 1960), and the Attitude Toward Handicapped Individuals--ATHI--Scale (Lazar et al, 1975; Lazar et al, 1976);

4) multidimensional measures of attitude toward a single handicapping condition (Efron & Efron, 1967; Harth, 1971);

5) multidimensional studies of attitude across categories of exceptionality (Antonak, 1980b; Greer, 1975; Guskin, 1963; Jones, 1974; Jones & Gottfried, 1962; Tringo, 1970); and

6) semantic differential instruments (Gottlieb & Corman, 1975; Gottlieb & Siperstein, 1976; Gottlieb et al, 1974; Greenbaum & Wang, 1965; Hughes et al, 1973; Jaffe, 1967; Panda & Bartel, 1972).

The rating scales were found to provide a global ranking for comparison across categories of exceptionality, but to mask subtleties of attitude dimensions. The measures of acceptance of integration were limited by situation specificity. The unidimensional scales were found to mask the multidimensional character of attitudes toward the exceptional, to omit differences in attitudes toward a variety of handicapping conditions, and to fail to detect changes in attitude. These scales were also shown to have inadequate psychometric properties. The multidimensional studies revealed the complexity of attitudes toward the exceptional, a complexity confirmed by the semantic differential studies.

Studies also revealed that acceptance of the exceptional

varied by situation (Antonak, 1980b; Gottlieb & Corman, 1975; MacDonald & Hall, 1969, 1971), and by severity of condition (Guskin, 1962; Gottlieb & Siperstein, 1976). The relationships between respondent characteristics--sex, age, educational level, teaching experience, special education courses taken, social status, locus of control, and contact with the exceptional--and attitudes were unclear. Evidence that the attitudes of professionals working with the exceptional cannot, a priori, be taken as acceptable was noted (Greenbaum & Wang, 1965; Harasymiw et al, 1976; Semmel, 1959; Smith, 1975). Various programs to improve the attitudes of pre-service (Herr et al, 1976; Orlansky, 1979; Warren et al, 1964; Wilson & Alcorn, 1969) and inservice teachers (Gay, 1976; Haring et al, 1958) were reviewed, and active learning and experience found to be important in achieving attitude change.

Labels and Stereotyping of the Exceptional

One issue of concern and study in recent years has been the effect of the labels of exceptionality on the development of stereotypes which affect the attitudes and expectations held for the exceptional. Maurer (1972) suggested that the anti-hero role of victim or scapegoat, is filled in every group, and that the exceptional labels made these students likely candidates to fill this role in school settings. A similar concern for the effects of labeling and stereotyping formed a basis for Dunn's (1968) argument against special education for the mildly handicapped. However, as noted by MacMillan, Jones and Aloia (1974), research

evidence to confirm negative effects of labeling is often contradictory, due to frequent confounding of the dependent and independent variables studied.

Jones (1972) reported the results of extensive studies of the effects of labels and stigma on students and teachers, as summarized in Table 18. The results make it clear that the labels do carry stigma, and that this does affect students during their school

Table 18

Summary of Studies of Labels and Stigma Reported by Jones (1972)

Subjects	Method	Results
I. Children's Perceptions of Themselves as Culturally Disadvantaged and Culturally Deprived		
7252 children	Survey of class identification.	Self-description: middle class.
259 5th, 6th graders, 49 black children	Define 20 terms, including those under study. Respond "good" or "bad" to socio-economic labels.	No satisfactory definitions. Rejection of terms of deprivation.
II. Acceptance of Deprivation Labels and School Attitudes		
1706 students	Biserial correlation, school attitudes & acceptance of labels.	School morale lower if accept label
III. Labels and Performance		
243 black college students	3 categories of labels, test effect on digit-symbol performance.	No effect.
100 black college students	Pretest, label, digit-symbol training, post-test.	No effect.
IV. Teacher Expectations and Labels		
34 randomly selected 4th grade teachers.	Correlations between 8 indices of school morale and teacher satisfaction	High correlations with pupil satisfaction.
V. Mediation of Expectancy Effects		
119 female undergraduates; experienced teachers, counselors.	Fill out school morale inventory as deprived child, unlabeled child.	Deprived child predicted to have lower morale.
VI. Retarded Students' Perceptions of Special Class Placement		
23 EMR high school boys.	Interviews.	Felt stigma.
116 EMR secondary students.	Interviews.	Felt stigma
VII. Stigma and Post-School Adjustment		
405 EMR-eligible students, post-school	Interviews.	Workers in [illegible] special [illegible]

careers. Artificially induced labels were not found effective in altering the performance of college students, but these studies involved only short-term training followed by posttesting, in contrast to field use of special education labels, which remain with a student for years during their school period. The results also confirm that the labels do affect the expectations of preservice and inservice teachers. These results suggest that the preconditions for a self-fulfilling prophecy can occur within an educational setting.

The possible effect of the label-induced stereotype was explored in a series of studies employing videotapes of normal children (Foster & Keech, 1977; Foster, Schmidt & Sabatino, 1976; Foster & Ysseldyke, 1976; Foster, Ysseldyke & Reese, 1975; Jacobs, 1978; Salvia, Clark & Ysseldyke, 1973; Young, Algozzine & Schmidt, 1979; Ysseldyke & Foster, 1978). In each study a label was used to induce a stereotype. Subjects were then asked to rate first the behaviors of the "stereotype" and then the behaviors of a child seen on the videotape. In the first study (Salvia et al, 1973), the videotapes portrayed normal boys aged 6, 8, and 10 completing various testing procedures. Undergraduate education majors (48 special education majors and 117 general education majors) were randomly assigned to the stereotype conditions, rating "mentally retarded," "normal," or "gifted" children. Subjects were told that the experiment was to establish inter-rater reliability of a 27-item behavior checklist. Subjects completed four ratings, one

of a stereotyped child according to the condition, and three of the children shown on the videotapes. The curricula of the subjects were not found to have a significant effect on ratings. In comparing the stereotype ratings, "gifted" children were rated more positively than "normal" children for their attitudes toward their own performance, while "retarded" children were rated less positively than "normal" children on all five dimensions of the checklist. However, clearcut results did not occur on the ratings of actual children. The stereotype did not affect ratings of child 1, did affect ratings of child 2 for all three conditions, and affected the ratings of child 3 only on some dimensions of the checklist. Thus, the experimenters concluded that the labels had a selective rather than pervasive effect.

Foster and associates (1975) developed a 12 minute videotape of a normal 4th grade child performing four activities: 1) taking the Wide Range Achievement Test (WRAT) reading recognition subtest, 2) taking the Peabody Individual Achievement Test (PIAT) general information subtest, 3) performing perceptual-motor tasks, and 4) engaging in free play. The videotape was used in seven studies of the effects of labeling (Foster et al, 1975; Foster et al, 1976; Foster & Keech, 1977; Foster & Ysseldyke, 1976; Jacobs, 1978; Young et al, 1979; Ysseldyke & Foster, 1978) which are summarized in Table 19. The results of these studies demonstrate that teachers in training, experienced teachers, and even 4th graders understood the stereotype attached to the special

Table 19

Videotape Studies of the Stereotyping Effects of Special Education Labels

Study	Subjects	Stereotype	Instruments
Foster et al (1975)	38 graduate, undergraduate students	Normal; ED	Pseudo-referral: personality items, behavior checklist
Foster & Yeseldyke (1976)	100 elementary teachers	Normal, LD, ED, EMR	Pseudo-referral: personality behavior
Foster et al (1976	44 elementary teachers	Normal; LD	Pseudo-referral: academic skills and problem areas
Foster & Keech (1977)	50 elementary teachers	Normal; EMR	Pseudo-referral: personality, behavior
Jacobs (1978)	40 elementary teachers	Normal; LD	Pseudo-referral: personality, behavior
Yeseldyke & Foster (1978)	75 elementary teachers	Normal; LD	Behavior checklist
Young et al (1979)	96 4th grade students	Normal; LD, ED, MR with and without positive attribute	Questions relating to peer acceptance

education labels studied, and did respond to it. The results also indicate that the stereotype, once established, continued to affect ratings in the face of normal behavior demonstrated on the videotape.

Two authors (Foley, 1979; Gottlieb, 1974) used videotapes to investigate the effect of labels and other factors on peer ratings of exceptional children. Gottlieb (1974) used a videotape of two children participating in a spelling bee to investigate fourth grade students' attitudes under two label conditions (5th grade student or retarded student) and two academic conditions (competent or incompetent speller). Competence was found to contribute

significantly to acceptance for middle socio-economic stratus students, but not low SES students. The labels had no significant effect for either socio-economic group. Foley (1979) used a videotype to investigate the effect of labels (normal, mentally retarded, learning disabled) and teacher reaction (positive or negative) on peer acceptance. Both label and teacher reaction were found to have a significant effect on peer acceptance by 4th grade students.

Two studies (Carroll & Reppucci, 1978; Parish et al, 1979) involved the stereotyped meanings attached to special education labels. Carroll and Reppucci (1978) compared the responses of teachers and mental health workers to a case study under four labeling conditions: unlabeled, mentally retarded, juvenile delinquent, and emotionally disturbed. Teachers rated themselves less knowledgeable and less willing to work with students in all labeled conditions. Differences in meaning, expectation, and recommended treatment were found to distinguish among all three label conditions for both groups of professionals. Parish and associates (1979) used the Personal Attribute Inventory (an adjective checklist) to study the reactions of 310 teachers and 95 participants at the Fifteenth Annual Conference of the Association for Children with Learning Disabilities to six labels; gifte, normal, physically handicapped, mentally retarded, learning disabled, and emotionally disturbed. Table 20 shows the mean number of negative adjectives chosen for each label by each group. The gifted, normal, and physically handicapped were rated significantly more positively than the mentally retarded, learning

Table 20

Mean Number of Negative Adjectives Chosen for Each Label by Two Groups of Respondents (Parish et al, 1979)

Label	Teachers	ACLD Participants
Gifted	3.76	5.65
Normal	4.15	5.64
Physically Handicapped	6.70	8.70
Mentally Retarded	16.48	13.56
Learning Disabled	18.46	15.78
Emotionally Disturbed	25.86	25.63

disabled, and emotionally disturbed by both groups, thus confirming negative stereotyping, even by those in attendance at a professional conference.

Another technique used to measure the effects of labels on attitudes and expectations of educators has been to provide subjects with labeled and unlabeled case studies describing behaviors, and compare teacher ratings. Table 21 summarizes three such studies (Algozzine et al, 1977; Combs & Harper, 1967; Gillung & Rucker, 1977). Again, the results confirm the negative effect of labels on attitudes and expectations. Algozzine and associates (1977) also found that the behaviors were viewed as more disturbing when they were inappropriate to the label, i. e., when LD labeled students were described as demonstrating ED behaviors or the reverse. Gillung and Rucker (1977) found that, not only did regular teachers rate the behaviors described more negatively

Table 21

Studies of Effects of Labels on Ratings of Behavioral Descriptions by Educators

Study	Subjects	Labels	Instruments
Combs & Harper (1967)	80 undergraduates; 80 professional educators	Schizophrenic, cerebral palsied, psychopathic, EMR	25-adjective checklist, 20 negative, 5 positive
Algozzine et al. (1977)	128 teachers	LD, ED, with appropriate, non-appropriate case study	Checklist, disturbingness of behaviors
Gillung & Rucker (1977)	176 regular, 82 special teachers	MR, ED, LD	Rate placement choice, expectation

when the student was labeled, but that special education teachers with seven or more years of experience did also.

Thus, the studies reviewed confirm the association of negative stereotypes with the labels of special education, and also confirm that special educators are susceptible to the development of such negative stereotypes. These negative stereotypes would fulfill the first condition for teacher expectancies to become self-fulfilling prophecies by causing the teacher to hold rigid, inappropriate expectations (Brophy & Good, 1974). In the next section, research into teacher expectancies will be reviewed.

Expectancies in Special Education

In an early review of research into educational expectancies, Finn (1972) defined expectation as:

> a concious or unconcious evaluation which one person forms of another . . . which leads the evaluator to treat the person evaluated in such a manner as though the assessment were correct. Further, he will

> ancticipate that the person evaluated will act in manner consistent with the assessment (p. 390).

Following initial research into teacher expectations and their effects in the classroom (Brophy & Good, 1970; Good & Brophy, 1972), Brophy and Good (1974, p. 39) proposed a five-step model for the process by which teacher expectations produce an effect, becoming self-fulfilling prophecies:

1. The teacher forms inappropriate, rigid expectations for students.

2. The teacher treats students differently, in accord with these expectations.

3. Students treat the teacher differently, partly in response to the different treatment they receive.

4. Student behavior generally complements and reinforces the teacher's expectations.

5. Student behavior over time comes to approximate that predicted by an inappropriate, rigid expectation held by the teacher.

Finn (1972, p. 397) noted that, among the factors to which teachers react in forming expectations are previous achievement, sex, race, and perceived personal qualities including "the exhibition of docile or otherwise teacher-pleasing behavior." In addition, as noted above, the development of a negative stereotype associated with a special education label could also become a factor in the development of rigid, inappropriate expectations.

That such a possibility exists was confirmed by Alper and Retish (1978) in finding that work-study teachers relied more on IQ information than on relevant information about vocational skills in predicting successful employment for mentally retarded students.

Research into teacher expectations, reviewed by Good (1981), has focused primarily on the second step, differential teacher behavior toward high- and low-expectation students. Good (1981) summarized the identified differences in teacher treatment of high- and low-expectation students:

1. Seating slow students farther from the teacher or in a group (making it harder to monitor low-achieving students or treat them as individuals).
2. Paying less attention to lows in academic situations (smiling less often and maintaining less eye contact).
3. Calling on lows less often to answer classroom questions or make public demonstrations.
4. Waiting less time for lows to answer questions.
5. Not staying with lows in failure situations (providing clues, asking follow-up questions).
6. Criticizing lows more frequently than highs for incorrect public responses.
7. Praising lows less frequently than highs after successful public responses.
8. Praising lows more frequently than highs for marginal or inadequate public responses.

9. Providing low-achieving students with less accurate and less detailed feedback than highs.

10. Failing to provide lows with feedback about their responses more frequently than highs.

11. Demanding less work and effort from lows than from highs.

12. Interrupting the performance of low achievers more frequently than that of high achievers (Good, 1981, p. 416).

Good (1981) also notes that there is greater variability in teacher treatment of low-expectation students than highs, and that students are aware of this variability. Many of the differences in treatment noted above were found by Frank and Buttgereit (1979) in a study of the classroom behaviors and attributional judgments made by teachers of the learning disabled.

Some evidence of differential communication based on expectancy in special education is derived from studies of attributional judgments of success and failure (Frank & Buttgereit, 1979; Frieze & Weiner, 1971; Severance & Gasstrom, 1977; Stroller et al, 1981). Based on the formalation that success or failure at an achievement task is attributed to four causal factors--ability, effort, task difficulty, and luck--Frieze and Weiner (1971) found that subjects used information about previous successes or failures in formulating attributional judgments. The authors found that success was significantly more likely to be attributed to personal factors--ability and effort--while failure was significantly more likely to be attributed to task difficulty or luck ($p < .01$).

Severance and Gasstrom (1977) used a factorial design varying labels (no label vs. mentally retarded), task outcomes (success or failure), and sex of the target person in a study of causal explanations. A written description of a target person, task, and task outcome was provided to each of 96 female undergraduates, and each factor--ability, effort, task difficulty, and luck--was rated as contributing to the outcome. Ability and task difficulty were seen as significantly more important causes under failure conditions for a labeled mentally retarded person than an unlabeled person ($p < .01$). Under success conditions, effort was seen as a much stronger contributing factor for the mentally retarded person than for an unlabeled person ($p < .001$).

Frank and Buttgereit (1979) used a factorial design examining causal explanations of academic performance by learning disabled students rated as high or low students by their special education teachers. Teachers were found to attribute academic behavior of their "good" students to: 1) effort, 2) ability, and 3) personality factors, while behavior of "bad" students was attributed to: 1) ability, 2) effort, and 3) environmental factors. The authors concluded that the differences in attributions could cause the observed differences in teacher behavior, as ability is not seen as amenable to teacher modification while effort can be modified, so that interaction with "good" students will produce changes while interaction with "bad" students limited by "ability" will not.

Stoller and associates (1981) varied the label (educationally

handicapped or learning disabled) and competence (high or low speller) and measured attributions and expectations for future spelling and math performance made by forty special education teachers. Although ability and effort were seen as contributing most to success, a significant interaction between competence and attribution was found, with greater attribution to luck and task difficulty being made for low competence students than high. Competence was the only significant factor in either math or spelling expectations. Thus, the label variations did not affect either attributions or expectations by special educators. However, a comparison with a "normal" label was not included, so it is not possible to confirm or refute the findings of Severance and Gasstrom (1977) that the label did affect the attributional judgments.

Fine (1967) investigated the ways in which regular and special class teachers differed in their attitudes and expectations regarding EMR students. Thirteen teachers of elementary level EMR students and 21 regular elementary teachers responded on a five-point scale to the statement, "Most children of lower ability would do better if made to try harder," (Fine, 1967, p. 429), and ranked the order of importance in their classroom of the following: good citizenship, social adjustment, and academic performance. Special teachers were found to place significantly greater stress on personal and social adjustment than regular teachers, and were less demanding that low ability

students "try harder."

This emphasis of special educators on the personal and social development of students was confirmed by Schmidt and Nelson (1969) and Lazar, Sigler and Skrtic (1977) in studies of the affective/ cognitive attitude dimension of teachers of the educable and trainable mentally retarded. Schmidt and Nelson (1969) administered the Preferred Student Characteristic Scale (PSCS), a 36-item paired choice scale measuring teacher attitudes toward affective and cognitive goals to 80 teachers of secondary level EMR students, and found that these teachers were affective in orientation. Years of experience, sex, and grade level taught were not found to effect this affective preference. By contrast, regular teachers (Nelson, 1964), and students preparing to teach (Lazar et al, 1975; Lazar et al, 1976) were found to be cognitively oriented. Lazar, Sigler and Skrtic (1977) used the PSCS with 30 teachers of the trainable mentally retarded, and found that 16% of this group were affectively oriented while only 10% were cognitively oriented. Thus, the results of Fine (1967), Lazar, Sigler and Skrtic (1977), and Schmidt and Nelson (1969) suggest that special educators may hold and communicate limited expectations for cognitive growth and achievement by their students. As yet, no studies have attempted to measure actual effects of these particular expectations on the achievement of special students, nor have the attitudes of teachers serving students with other exceptionalities been studied.

One study of nonverbal teacher behavior toward labeled and

nonlabeled children (Kurtz, Harrison, Neisworth & Jones, 1977) provides evidence that nonverbal, as well as verbal behavior of teachers may be influenced by expectations. Twelve undergraduate education majors were provided with a labeled (mentally retarded) or unlabeled case study, and then videotaped while reading a story to the child. (All children were actually developmentally normal.) Teachers reading to labeled children were found to use more immediacy, leaning toward the child frequently, than teachers with unlabeled children. The authors suggested that, with preschool children, this non-verbal behavior may have been compensatory. This may also be the beginning of the over-protection which Fraser (1979) notes as a factor increasing handicap by limiting the opportunities of exceptional children.

Observation of student behavior may be another teacher factor related to expectations. Mason (1973) used a factorial design to study the effect of biased psychological reports (favorable, neutral, and unfavorable), knowledge/no knowledge of the bias effect, and sex of the student on teacher's observations of errors in a videotaped testing situation and on teachers' expectations for future student achievement. Significant interactions were found between the psychological report and knowledge, and between knowledge and sex of the child. Subjects with knowledge observed more errors when they had read the neutral report, while subjects without knowledge observed more errors when they had read the

negative report. Subjects with knowledge of the bias effect rated the boy's performance more positively, while subjects without knowledge rated the girl's performance higher. The psychological report produced the only significant effects on teacher expectation for future achievement, and no significant interaction with knowledge was found to effect teacher expectations. If bias can effect teacher observations of student performance, as found here, stereotypes associated with special education labels may produce the same observational bias in classroom situations, thus reinforcing a teacher's expectations.

Although behavioral differences have been associated with different teacher expectations, student outcomes have been disputed. Increased achievement has been observed with elementary pupils (Doyle, Hancock & Kifer, 1972; Seaver, 1973), and special students (Meichenbaum, Bowers & Ross, 1969), and attitude effects have been observed with secondary students (Kester & Letchworth, 1972). Smith (1980), in a meta-analysis of 47 studies of teacher expectations, found that expectations had a larger effect on pupil achievement and affect than on intelligence. Reading achievement and achievement in language arts, social studies and number of concepts learned were more influenced than math achievement and class grades. Pupil participation and social competence were also affected by teacher expectations.

Thus, the weight of evidence is that teacher expectations do exist and do have an effect. If negative stereotypes of

exceptional children are a factor in the formation of rigid, inappropriate expectations by teachers, then such stereotypes may have a detrimental effect on the achievement of exceptional students.

Summary

Previous research into the affective meanings assigned to and expectations held concerning exceptional children by special educators, although not conclusive, provides some support for a view that professionals, in common with lay people, employ a social pathology model in their approach to handicapped persons. Thus, attitudes toward exceptional children have been shown to be multifaceted (Antonak, 1980b; Efron & Efron, 1967; Greer, 1975; Guskin, 1963; Harth, 1971; Jones, 1974; Jones & Gottfried, 1962; Tringo, 1970), and to be more negative than attitudes toward normal children (Antonak, 1980b; Guskin, 1963; Jones, 1974; Panda & Bartel, 1972). Evidence concerning the specific attitudes of special educators is mixed but indicates the need for concern (Gillung & Rucker, 1977; Greenbaum & Wang, 1965; Harasymiw et al, 1976; Semmel, 1959; Smith, 1975). Factors which relate to attitudes toward the exceptional may include age, sex, educational level, teaching experience, grade level taught, and size and location of the school district.

Research into labeling and stereotyping of the exceptional (Algozzine et al, 1978; Carroll & Reppucci, 1978; Combs & Harper, 1967; Foster & Keech, 1977; Foster et al, 1976; Foster &

Ysseldyke, 1976; Foster et al, 1975; Gillung & Rucker, 1977; Jacobs, 1978; Jones, 1972; Parish et al, 1979; Salvia et al, 1973; Young et al, 1979; Ysseldyke & Foster, 1978) confirms that the exceptional are viewed more negatively than the non-exceptional, and that the stereotype of the label sets up response biases, such as recommending more restrictive placement for labeled students.

Studies of expectancy effects in educational settings suggest that the stereotyping and labeling of exceptional students may be a factor in the development of negative expectancies by teachers which may in turn effect student achievement (Alper & Retish, 1978; Brophy & Good, 1974; Finn, 1972; Good, 1981; Mason, 1973; Severance & Gasstrom, 1977; Stoller et al, 1981). Thus, the need to develop adequate information concerning the affective meanings special educators assign to their concepts of exceptional students, normal students, and themselves, and factors related to these meanings becomes apparent.

Hypotheses

Based on previous research, and the questions raised concerning the affective meanings special educators assign to their concepts of exceptional students, regular class students, and themselves, and factors associated with these meanings, the following hypotheses were tested in the present study.

Hypothesis 1

There are no significant differences among the affective meanings Virginia public school teachers of the learning

disabled, mentally retarded, and emotionally disturbed assign to their concepts of educable mentally retarded, learning disabled, emotionally disturbed and regular class students, special educators and themselves personally, as measured by the three factors of meaning using a semantic differential.

Previous research (Antonak, 1980b; Guskin, 1963; Jones, 1974; Osgood et al, 1975; Panda & Bartel, 1972) and social pathology theory (Gliedman & Roth, 1980; Lemert, 1951) suggests that the three exceptional categories will receive lower scores on all three factors of meaning (evaluation, potency, and activity) than the three "normal" concepts. Therefore, the alternative hypothesis was that:

Virginia public school teachers of the learning disabled, mentally retarded, and emotionally disturbed assign significantly lower evaluation, potency and activity factor scores to their concepts of educable mentally retarded, learning disabled, and emotionally disturbed students than to their concepts of regular class students, special educators and themselves, as measured by a semantic differential.

Hypothesis 2

There are no significant differences in the attitudes (evaluative factor scores) Virginia public school teachers of the learning disabled, emotionally disturbed, and

mentally retarded hold for the category of exceptionality they teach than those they hold for the other categories of exceptionality studied.

Previous research (Jones & Gottfried, 1962; Panda & Bartel, 1972) suggests that special educators are more positive toward the category of exceptionality they teach than toward other categories. Thus, the alternative hypothesis was that:

Virginia public school teachers of the learning disabled, emotionally disturbed, and mentally retarded assign significantly more positive evaluative factor scores to the category of exceptionality they teach than to the other categories of exceptionality studied.

Hypothesis 3

There are no significant correlations between the affective meanings Virginia public school teachers of the mentally retarded, learning disabled, and emotionally disturbed assign to their concepts of educable mentally retarded, learning disabled, emotionally disturbed and regular class students, and special educators and themselves personally, and the factors of age, sex, level of education, length of teaching experience, type of service delivery (itinerant, resource, or self-contained), level of service delivery (elementary or secondary), and size of the employing school system.

As research into the relationships between these factors and attitudes toward the exceptional is limited, and the results are

contradictory (Gillung & Rucker, 1977; Gottlieb & Corman, 1975; Greenbaum & Wang, 1965; Hughes et al, 1973; Jordan & Proctor, 1969; Tringo, 1970), no alternative hypothesis as to direction or degree of relationship between the predictor and criterion variables was developed.

In Chapter 3, the design of the present study to test these hypotheses is discussed.

Chapter 3

Methodology

The purpose of this study was to measure the affective meanings special educators in Virginia public schools assign to their concepts of a "learning disabled student," an "emotionally disturbed student," an "educable mentally retarded student," a "regular class student," a "special educator," and "me (myself)," and to identify factors such as age, level of education, length of teaching experience, type of service delivery, teaching at the elementary or secondary level, and size of employing school system, which are related to these meanings.

Population and Selection of the Sample

The populations of subjects for this study are teachers holding Virginia certification and teaching classes for 1) the learning disabled, 2) the emotionally disturbed, and 3) the educable mentally retarded in Virginia public schools during the 1982-1983 school year.

A ten percent stratified random sample of Virginia public school systems was drawn to represent the following size classifications, based on June, 1981, average daily membership figures (ADM) (Facing Up, March, 1982):

2 systems from cities/towns with less than 1000 ADM

6 systems from counties with 1000 to 5000 ADM

2 systems from cities with 1000 to 5000 ADM

2 systems from counties with 5001 to 10,000 ADM

1 system from cities with 5001 to 10,000 ADM

4 systems from cities/counties with above 10,000 ADM

This represents an actual 11.8 percent of the Virginia public school systems.

Directors of special education in each of the systems were contacted in October, first by letter (Appendix A), and then by telephone, to solicit the participation of teachers in their system, the assistance of the directors in distributing the research packets, and to establish the number of packets to be sent to each system for distribution to all the teachers of the educable mentally retarded, learning disabled, and emotionally disturbed in that system. Three directors elected not to have their systems included in the study, leaving a sample of thirteen systems ranging in size, as measured by average daily membership in June, 1981, from 800 to 13,150 (Facing Up, March, 1982).

A total of 376 research packets were distributed, of which 157 were returned. Of these, five were unscorable, leaving a final sample of 152, or 40% of the original sample and approximately 5% of the teaching populations studied. This final sample included 46 teachers of the educable mentally retarded, 77 teachers of the learning disabled, and 29 teachers of the emotionally disturbed.

The subjects ranged in age from 22 to 63, with a mean age of 32.849 (S.D.=9.395). Figure 2 is a frequency distribution of the

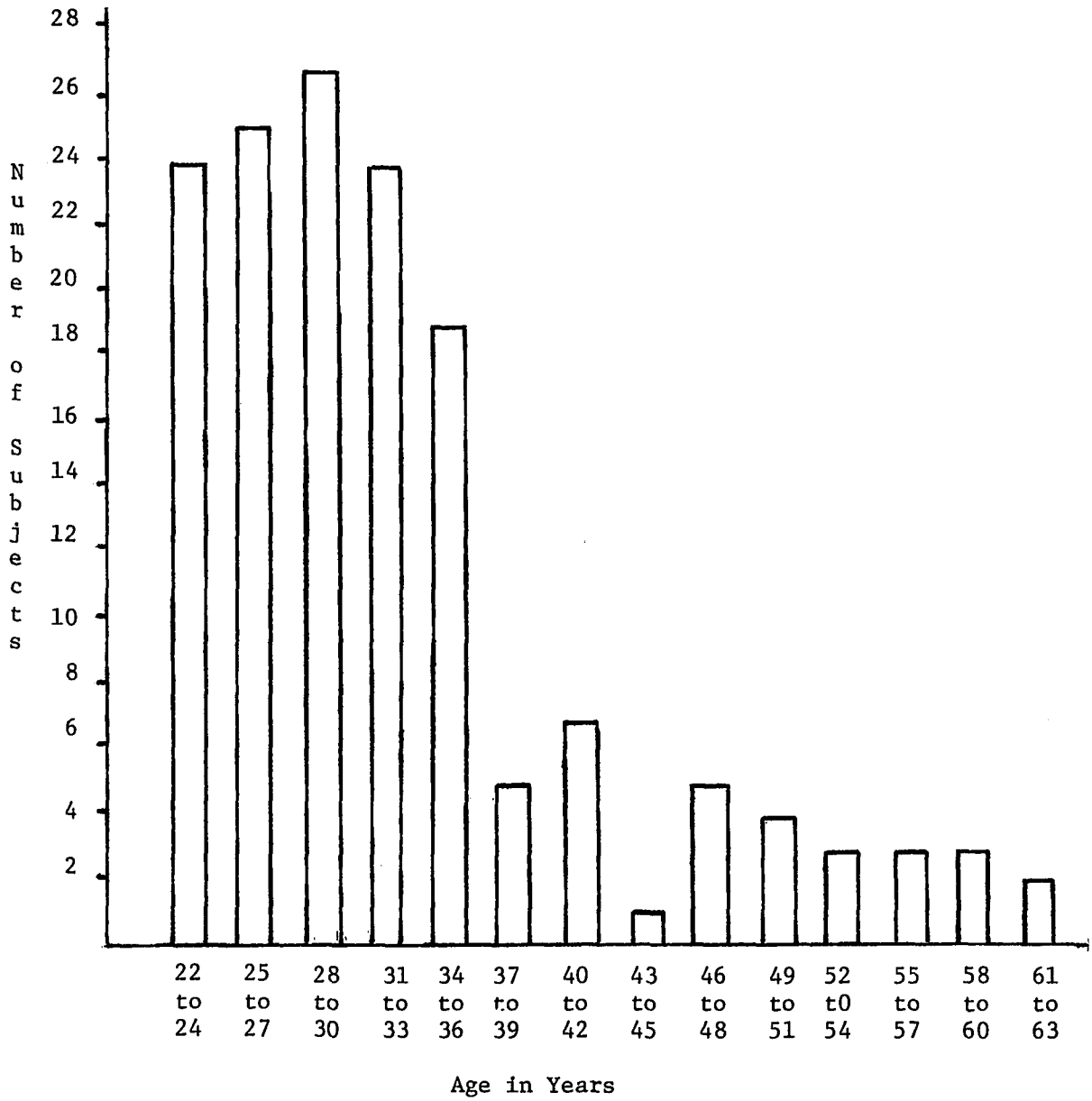


Figure 2 Frequency Distribution of the Sample by Age

sample by age. Total years teaching experience of the sample ranged from 0.5 to 41 years, with a mean of 8.562 (S.D.=7.617). Years in current assignment ranged from 0.5 to 23 years, with a mean of 3.826 years (S.D.=3.506).

Table 22 shows the distribution of the sample through school systems by size. Seventy-nine subjects, or 51.9% of the sample, were from cities and towns, and 73 subjects, or 48.1% of the sample, were from counties.

Table 22

Number of Subjects in School Systems According to Size and Governmental Unit Classification

Size/type of school system	Number of Subjects
City/county below 1000 ADM	4
Counties 1000 to 5000 ADM	37
Cities 1000 to 5000 ADM	4
Counties 5000 to 10,000 ADM	21
Cities 5000 to 10,000 ADM	11
Cities/counties above 10,000 ADM	75

Table 23 shows the breakdown of the three subsamples (teachers of the learning disabled, the emotionally disturbed, and the educable mentally retarded) and the total sample by sex, race, final educational level, teaching endorsements, type of service delivery,

level, and range of years in the current assignment.

Table 23

Number of Teachers in Subsamples and Sample by Sex, Race, Educational Level, Special Education Endorsements, Type of Service Delivery, Level, and Range of Years in Current Assignment

Personal Variable		EMR teachers	LD teachers	ED teachers	Total	Percent of sample
Sex	Male	7	8	2	17	11.2%
	Female	39	69	27	135	88.8%
Race	White	28	57	19	104	68.4%
	Black	18	20	10	48	31.6%
Education						
	B. A.	30	30	22	82	53.9%
	B. A. + 15	0	1	0	1	0.1%
	M. A.	15	43	7	65	42.8%
	Double M. A. or C. A. S.	1	3	0	4	2.6%
Endorsements						
	MR	44	31	8	83	
	LD	3	75	7	85	
	ED	3	16	28	43	
Service delivery	Itinerant	6	10	1	17	11.2%
	Resource	10	37	7	54	35.5%
	Self-contained	31	30	21	82	59.2%
Level	Elementary	13	52	14	79	52.0%
	Secondary	33	25	15	73	48.0%
Range of years in current assignment		0.5 to 23	0.5 to 13	1 to 10	0.5 to 23	

Procedure

Following selection of the participating school systems and

identification of the size of the sample in each system, an appropriate number of research packets were sent, with a cover letter (Appendix B) to each director for distribution to the teachers. As the researcher never knew the names of participating teachers, anonymity of all respondents was protected.

Each research packet contained a cover letter explaining the purpose of the research and requesting participation by the recipient (Appendix C), a coded copy of the response booklet, and a self-addressed stamped return envelope.

Following a period of three weeks, a second package was sent to the participating directors, containing a cover letter (Appendix D), and a sufficient number of letters for distribution to those who had received the research packets earlier. This letter (Appendix E) thanked those who had returned the booklets promptly and again requested the participation of those who had not returned the response booklets to that date.

Further efforts to retrieve the response booklets were not made, as such efforts would have been unlikely to produce a markedly greater return. In addition, the final sample of returns was sufficiently large to permit analysis and interpretation of the data.

Instrumentation

Two instruments, a personal information questionnaire and the semantic differential instrument, were combined to form an eight-page booklet: the personal information questionnaire, directions

for use of the semantic differential, and the six pages of semantic differential concept measures. The booklet was printed only on one side of the page, to discourage direct comparisons of semantic differential ratings from one concept to the next by subjects.

The personal information questionnaire was developed to suit the needs of this study (Appendix F). This questionnaire was tested and amended in the spring of 1982 in a pilot study involving 20 special educators in local systems and fifteen special education graduate students at the College of William and Mary.

The directions for use of the semantic differential were adapted from Osgood and Suci (1969, p. 45), as follows:

DIRECTIONS

> The purpose of this study is to measure the meanings of certain concepts to special educators by having them judge each concept against a series of descriptive scales. In completing this booklet, please judge the concepts on the basis of what they mean to you. A concept is listed at the top of each page, followed by twelve descriptive scales (such as high-low). You are to rate EACH concept on EACH 7-point scale. If you feel the concept is very closely related to one end of the scale, place your mark as follows:
>
> high _X_:___:___:___:___:___:___: low
>
> If you feel the concept is quite closely related to one end

of the scale, you might mark as follows:

sad ___:___:___:___:___:_X_:___ happy

If the concept seems only slightly related to one side as opposed to the other, you might mark as follows:

wet ___:___:___:___:_X_:___:___ dry

If you consider the scale completely irrelevant, or both sides equally associated, check the middle space on the scale:

cold ___:___:___:_X_:___:___:___ hot

Make each item a separate, independent judgment. Work at a fairly high speed, without worrying or puzzling over the individual items for long periods. It is your first impressions that are of interest.

DO NOT SKIP ANY PAGES OR SCALES

Twelve bi-polar pairs of adjectives were choesn from previous studies (Osgood et al., 1957, p. 37, 52-61; Osgood et al., 1975, p. 114, 172) to represent the three major factors of meaning: evaluation, potency, and activity, as shown in Table 24. These twelve pairs were selected for their high rotated factor scores on one of the three factors, either in previous research (Osgood et al., 1975, p. 114), or in the pilot study in the spring. During the pilot study, a principal factor analysis without iteration, with varimax rotation, was used (Nie, Hull, Jenkins, Steinbrenner & Bent, 1975, pp. 468-508).

Table 24

Bi-Polar Scales With Factor Loadings

Factor	Scales	Osgood et al, 1957	Osgood et al, 1975	Pilot
Evaluation	good-bad	.88	.93	.84
	beautiful-ugly	.86		.84
	clean-dirty	.82		.61
	nice-awful		.94	
Potency	powerful-powerless		.75	
	severe-lenient	.43		.67
	tenacious-yielding	.34		.71
	complex-simple	.25		.71
Activity	active-passive	.59		.77
	successful-unsuccessful	.25		.74
	fast-slow	.70	.64	.87
	noisy-quiet		.56	

Table 25 shows the results of a principal factor analysis without iteration with quatrimax rotation (Nie et al., 1975, pp. 468-508) of the responses of a randomly selected 25% (N=38) of the subjects in the present study.

The twelve adjective pairs were randomly sequenced (Friedman, 1972), and randomly placed in positive or negative orientation to form the semantic measure pages (Appendix G). The order of the semantic concept measure pages was randomly established. This random arrangement of adjective pairs, orientation, and concepts obvi-

ates the formation of a response bias.

Table 25

Quatrimax Rotated Factor Loading for Adjective Pairs

Adjective Pair	Factor I Evaluation	Factor II Activity	Factor III Potency
clean-dirty	.696	.257	-.129
good-bad	.809	.158	-.067
nice-awful	.797	.248	-.184
beautiful-ugly	.745	.015	.194
active-passive	.121	.786	.237
powerful-powerless	.194	.790	.005
successful-unsuccessful	.523	.547	-.261
fast-slow	.217	.684	.071
severe-lenient	-.273	-.041	.781
tenacious-yielding	-.194	.032	.729
complex-simple	.286	.179	.661
noisy-quiet	-.557	.192	.574

Six concepts were defined using the semantic differential: A LEARNING DISABLED STUDENT, AN EMOTIONALLY DISTURBED STUDENT, A REGULAR CLASS STUDENT, A SPECIAL EDUCATOR, AN EDUCABLE MENTALLY RETARDED STUDENT, and ME (Myself).

Reliability of the Semantic Differential. In previous studies (Osgood et al., 1957) the semantic differential demonstrated a test-retest reliability of r=.85 or better. In addition, the three main factors of meaning were found to be highly reliable

across repeated factorings with many concpets and many bi-polar adjective pairs.

Test-retest reliability in the pilot for the present study, with a subject group of thirteen graduate students in special education at the College of William and Mary was $r=.8386$, $p<.00$, with a two week interval.

In the present study, a random 25% of the total sample were chosen, and internal reliability of the measure of affective meanings computed on the basis of their responses. As the scale is composed of three factors, and is applied to six concepts, two scales were derived, each representing half of the adjective pairs, two for each factor on each concept, and the SPSS program split reliability with equal length Spearman-Brown correction (Hull & Nie, 1981, pp. 248-267) was found to be $r=.7758$, $p<.01$. A higher internal reliability coefficient for an instrument intended to measure such diverse concepts across three orthogonal factors would be surprising.

Validity of the Semantic Differential. Concurrent validity coefficients of the evaluative factor and Thurstone scales measuring attitude toward the Church, the Negro, and capital punishment were computed at .90 or better (Osgood et al., 1957, p. 193). A rank order correlation between a semantic differential and a Guttman scale measuring attitudes of farmers toward crop rotation was highly significant ($rho=.78$, $p<.01$) (Osgood et al., 1957, p. 194).

The successful use of the semantic differential in discriminating between groups in their ratings of a variety of concepts, and in discriminating self-image descriptions of patients before and after psychotherapeutic intervention, confirms its use as a measuring device of sufficient power. Gottlieb and Siperstein (1976) used the semantic differential in a direct comparison with a Likert scale, a Thurstone scale and an adjective checklist to assess the effects of attitude referent specificity on attitudes toward the mentally retarded. Results for differences of severity of referent were significant on all scales with attitudes toward the mildly retarded being more positive ($p<.001$). Panda and Bartel (1972) used the semantic differential to study perceptions of various categories of exceptionality by special and regular educators, and found significant differences between categories, and between the activity ratings of regular and special educators. Thus, the semantic differential has been confirmed for use in research similar to the present study.

The results of the principal factor analysis without iteration with quatrimax rotation, shown in Table 25, confirm that the adjective pairs chosen do represent the three major factors of meaning: evaluation, potency, and activity. As the number of factors was not specified in the analysis, yet the three factors were the only three extracted, the stability of the factors is again confirmed.

Design

An ex post facto survey design using a personal information questionnaire and a semantic differential device was used to sample the affective meanings assigned by three groups of special educators to six concepts associated with their profession, each concept being defined by the three factors of meaning measured by the semantic differential: evaluation, potency, and activity. Thus, a 3 x 6 x 3 design with replicated factor measures was used. The predictor variables were the exceptional category served (learning disabled, educable mentally retarded, and emotionally disturbed), and the demographic variables: age, sex, race, level of teacher education, total years of teaching experience, years in the current assignment, special education endorsement(s), type of service delivery (itinerant, resource, or self-contained), level of placement (elementary or secondary), and size of the employing school system. The criterion variables were the meanings of the six concepts as defined by the three factors.

Treatment of Data

The rating on each bi-polar scale was scored from one to seven, with seven being the most positive, potent or active. These scores for each bi-polar adjective pair were summed and averaged by factor for each subject on each concept, producing evaluation, potency, and activity scores for each concept for each subject. Tabular presentations of the means and standard deviations of factor scores for each concept for each group of teachers (Hull & Nie,

1981, p. 65) answered the question concerning the affective meanings assigned by teachers of the educable mentally retarded, learning disabled, and emotionally disturbed to their conceprs of a "learning disabled student," an "emotionally disturbed student," an "educable mentally retarded student," a "regular class student," a "special educator," and "me (myself)." As the three factors of meanings are orthogonal, graphic representation of the meanings of the six concepts within a three-dimensional semantic space provides a visual presentation of the differences among concepts and groups.

In addition to defining the professional semantic spaces of special educators in Virginia public schools, the date were used to test three major hypotheses.

Hypothesis 1

> There are no significant differences among the affective meanings Virginia public school teachers of the learning disabled, educable mentally retarded, and emotionally disturbed assign to their concepts of educable mentally retarded, learning disabled, emotionally disturbed, and regular class students, special educators, and themselves personally, as measured by the three factors of meaning using a semantic differential.

A 3 x 6 x 3 multivariate analysis of variance (MANOVA) (Hull & Nie, 1981, pp. 1-78) was used to test the first hypothesis. The alternative hypothesis, based on previous research (Antonak, 1980b; Guskin, 1963; Jones, 1974; Osgood et al., 1975;

Panda and Bartel, 1972) and social pathology theory (Gliedman & Roth, 1980; Lemert, 1951) is that:

> Virginia public school teachers of the learning disabled, educable mentally retarded, and emotionally disturbed assign significantly lower evaluation, potency and activity factor scores to their concepts of educable mentally retarded, learning disabled, and emotionally disturbed students than to their concepts of regular class students, special educators and themselves, as measured by a semantic differential.

In addition, the multivariate analysis of variance was used to test the hypothesis that:

> There are no significant interactions between teacher group and concept, teacher group and factor of meaning, or concept and factor of meaning, and no significant three-way interaction between teacher group, concept, and factor of meaning.

Research provides insufficient guidance for the development of an alternate hypothesis concerning interaction.

Hypothesis 2

> There are no significant differences in the attitudes (evaluation factor scores) Virginia public school teachers of the learning disabled, emotionally disturbed, and educable mentally retarded hold for students in the category of exceptionality they teach, and those they hold for students in the other two categories of exceptionality studied.

The cell means, standard deviations, and 95% confidence intervals output as a part of the MANOVA procedure (Hull & Nie, 1981, pp. 1-79) were used to test the second hypothesis. Based on previous research (Jones & Gottfried, 1962; Panda & Bartel, 1972) the alternative hypothesis is that:

> Virginia public school teachers of the learning disabled, emotionally disturbed, and educable mentally retarded assign significantly more positive evaluation factor scores to their concepts of students in the category of exceptionality they teach than to their concepts of students in the other two categories of exceptionality studied.

Hypothesis 3

> There are no significant correlations between the affective meanings Virginia public school teachers of the educable mentally retarded, learning disabled, and emotionally disturbed assign to their concepts of educable mentally retarded, learning disabled, emotionally disturbed and regular class students, and special educators and themselves personally, and the factors of age, race, sex, level of education, length of teaching experience, type of service delivery (itinerant, resource, or self-contained), level of service delivery (elementary or secondary), years in present assignment, special education endorsement, and size of the employing school system.

Prior to testing hypothesis 3, a zero order correlation matrix was used to eliminate multicollinearity caused by the use of highly intercorrelated independent variables. This correlation matrix is shown in Appendix H. As age, education, total years experience, and years in current assignment were found to be highly intercorrelated, stepwise multiple regressions, using each of these variables in turn while eliminating the other three were used to identify the strongest predictive equation. Additionally, a high positive ($r=.48$, $p=.001$) correlation between race and size of system was found, causing these two predictors to be tested separately. The hypothesis was tested by stepwise multiple regression (Hull & Nie, 1981, pp. 94-120) for each score, factor of meaning, and concept, for each group of teachers and for the total group.

Both the analysis of variance and the multiple regression analysis assume the criterion measure to be interval data suitable for the computation of means and standard deviations, while the predictor variables may be categorical, ordinal, or interval data. Osgood and associates (1957, p. 152) and Messick (1969) present evidence that the intervals used in the semantic differential are equal, therefore satisfying the assumption of interval data required for use of both procedures. Both tests also assume that samples were drawn at random from normal populations. The use of random sampling and the large sample size assure that this assumption is sufficiently met to permit use of these procedures. Finally, the multiple regression assumes the linearity of the

regression. This assumption was tested through an examination of the residuals, and was met.

Summary of Methodology

An ex post facto design using a personal information questionnaire and a semantic differential device was used to study the affective meanings that a 5% random sample of teachers holding Virginia certification and teaching the educable mentally retarded, learning disabled, and emotionally disturbed in Virginia public schools assign to their concepts of a "learning disabled student," an "emotionally disturbed student," a "regular class student," a "special educator," and "educable mentally retarded student," and "me (myself)." Differences in attitudes and meanings across the six concepts and the three groups of teachers were tested on the three factors of meaning measured by the semantic differential--evaluation, potency, and activity--using a multivariate analysis of variance. The relationships between these affective meanings and the teacher's age, race, sex, level of education, special education endorsements, length of teaching experience and years in current assignment, type and level of service delivery, and size of the employing school system were tested using a multiple regression analysis.

Chapter 4

Analysis of Results

The purpose of this study was to identify the affective meanings special educators in Virginia public schools assign to various concepts associated with their profession and to investigate variables which might correlate with and predict these affective meanings.

Thus, the first question asked in this study was what affective meanings do teachers of the educable mentally retarded, learning disabled, and emotionally disturbed in Virginia public schools assign to their concepts of learning disabled, emotionally disturbed, educable mentally retarded and regular class students, special educators, and themselves personally. Means and standard deviations for the three factors of meaning--evaluation, potency and activity--measured by the semantic differential for three groups of teachers are shown in Table 26.

With few exceptions, all mean factor scores fell near the 4.0 neutral point, or in the low positive range (4.0 to 5.0). The personal concept, "me (myself)," and concept of "special educator," received the highest scores on the evaluation and activity factors from all three groups of teachers. The concept, "emotionally disturbed student," received the lowest evaluation factor scores and the highest potency factor scores from all three groups of teachers. The concept, "educable mentally retarded student,"

received the lowest activity factor scores from all three groups of teachers.

Table 26

Means and Standard Deviations for the Three Groups of Teachers for Six Concepts on the Three Factors of Meaning

Factor	Teacher group	Concepts					
		LD student	ED student	EMR student	Regular student	Special educator	Me
Evaluation	EMR teachers (N = 46)	4.418 .646	3.880 .579	4.255 .729	4.348 .647	5.014 1.066	5.511 .990
	LD teachers (N = 77)	4.565 .783	3.958 .602	4.130 .533	4.341 .588	4.883 .813	5.383 .823
	ED teachers (N = 29)	4.509 .828	3.948 .819	4.086 .789	4.393 .618	4.758 .872	5.320 .847
Potency	EMR teachers	4.434 .895	5.136 1.157	4.250 1.031	4.109 .902	4.071 .984	4.011 .925
	LD teachers	4.705 .908	5.182 .866	3.825 .902	4.143 .620	4.016 .960	4.130 .890
	ED teachers	4.603 .792	5.405 .929	3.792 1.253	3.845 .712	4.196 .898	4.333 .901
Activity	EMR teachers	3.853 .770	4.310 .585	3.560 .952	4.696 .689	5.168 .975	5.196 .826
	LD teachers	4.000 .763	4.153 .772	3.182 .884	4.373 .673	5.023 .807	5.205 .791
	ED teachers	3.862 .825	4.207 .843	3.384 1.017	4.500 .543	5.103 1.041	5.190 .915

As the three factors of meaning measured by the semantic differential are orthogonal, it is possible to graph the affective meanings of these concepts within a three-dimensional semantic space. Figure 3 shows the semantic space of the teachers of the educable mentally retarded in this sample; Figure 4 the semantic space of the teachers of the learning disabled; and Figure 5 the semantic space of the teachers of the emotionally disturbed. Teachers of the educable mentally retarded tend to cluster the learning disabled and the educable mentally retarded, viewing both

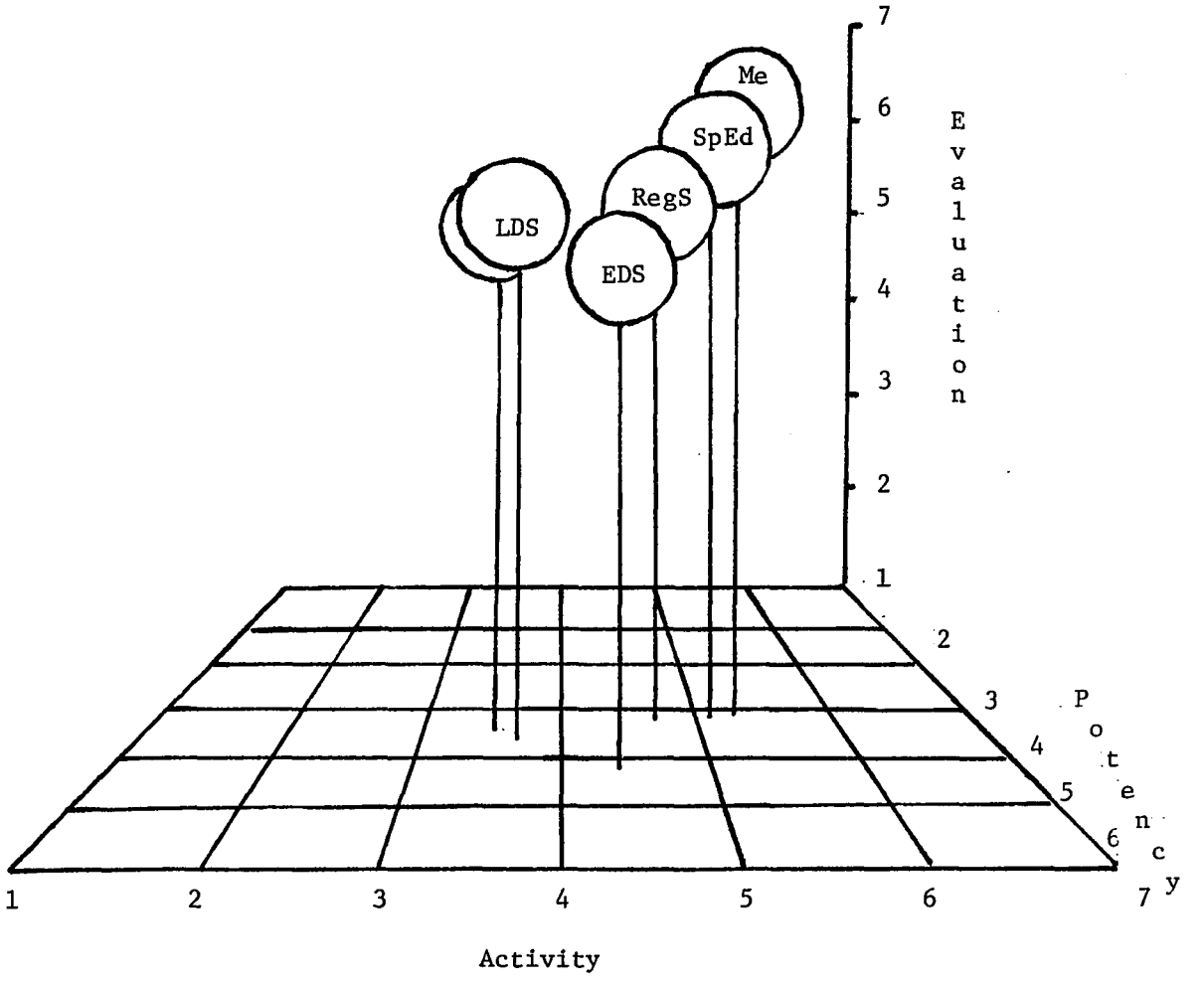


Figure 3 Semantic Space of Teachers of the Educable Mentally Retarded

LDS	Learning Disabled Student
EDS	Emotionally Disturbed Student
EMRS	Educable Mentally Retarded Student
RegS	Regular Class Student
SpEd	Special Educator

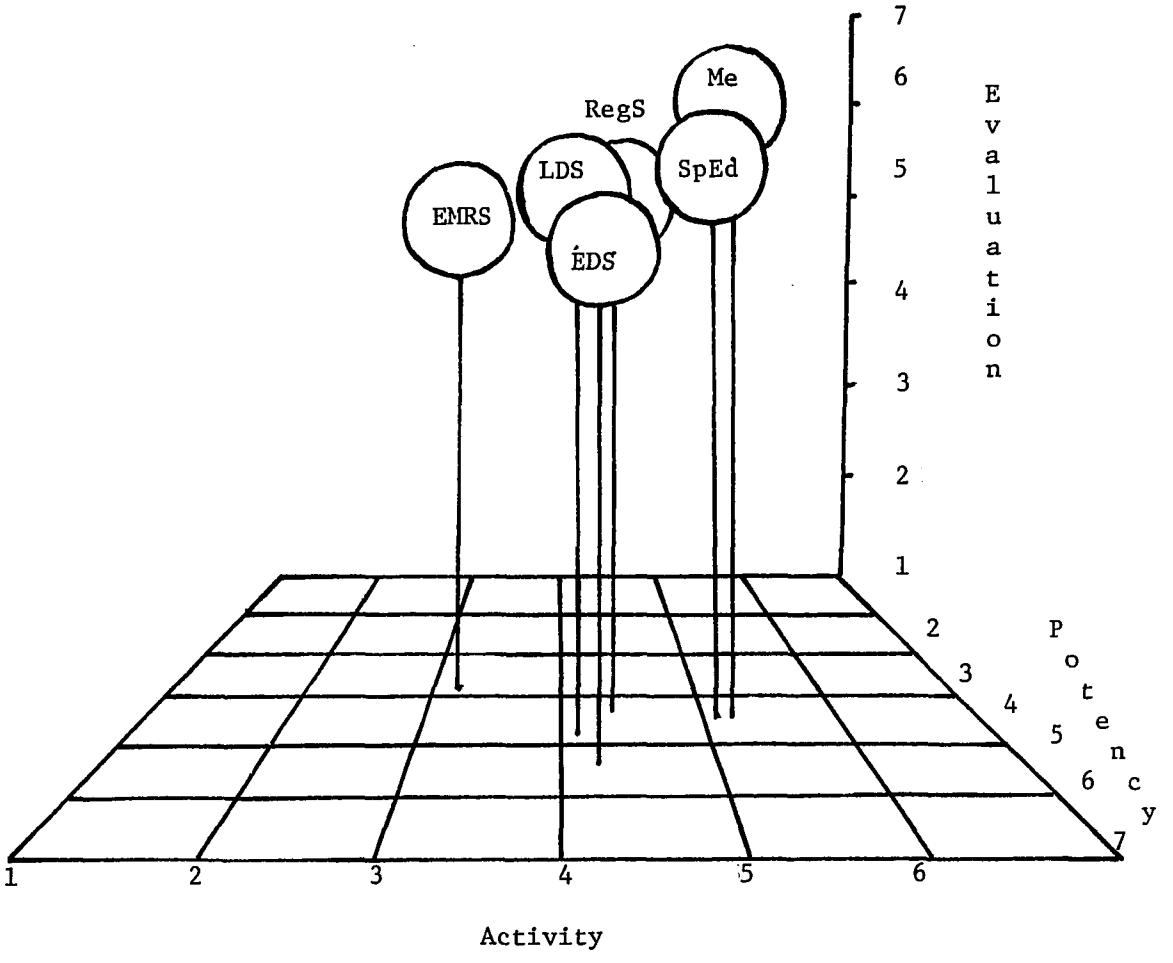


Figure 4 Semantic Space of Teachers of the Learning Disabled

LDS Learning Disabled Student
EDS Emotionally Disturbed Student
EMRS Educable Mentally Retarded Student
RegS Regular Class Student
SpEd Special Educator

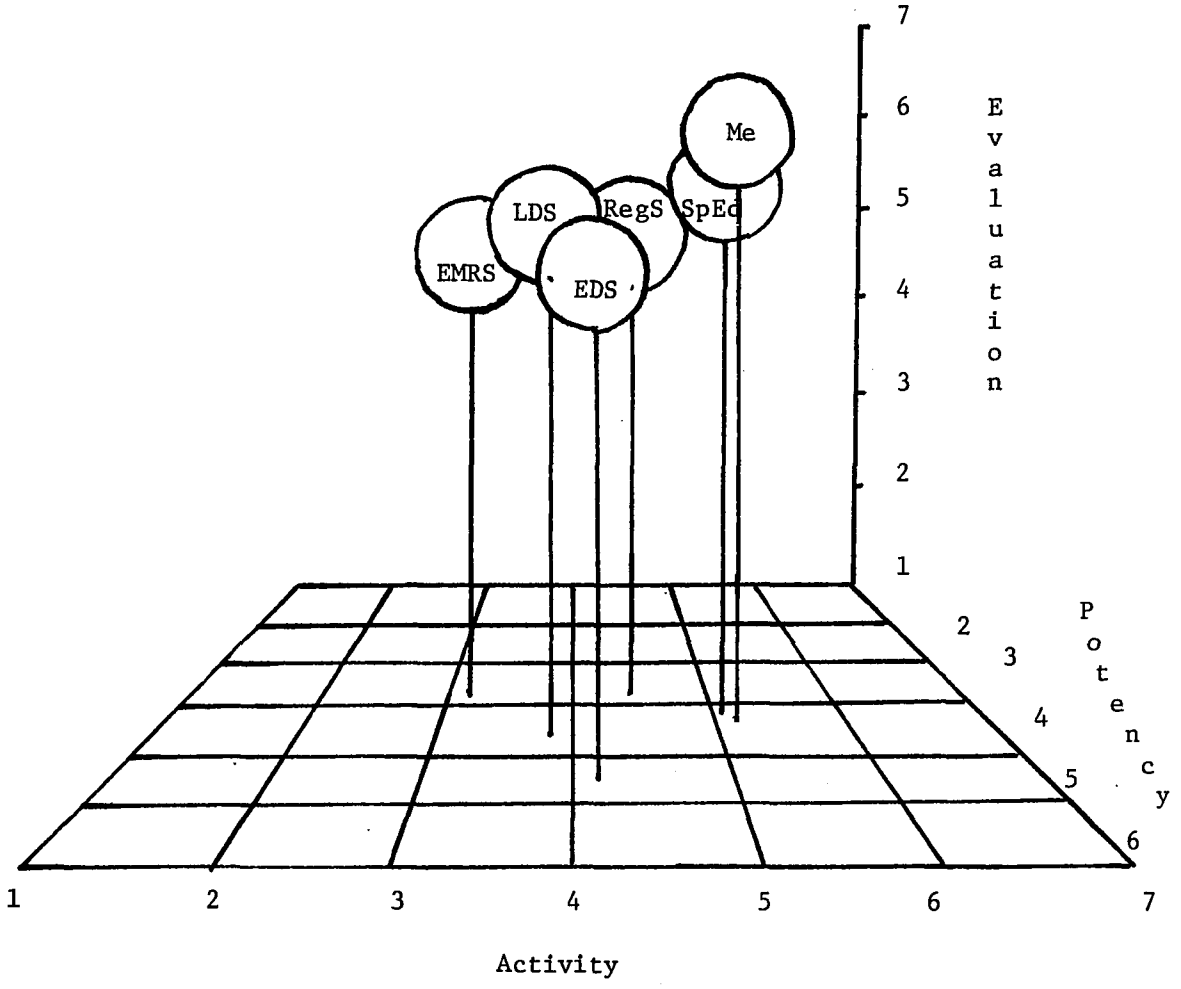


Figure 5 Semantic Space of Teachers of the Emotionally Disturbed

LDS Learning Disabled Student
EDS Emotionally Disturbed Student
EMRS Educable Mentally Retarded Student
RegS Regular Class Student
SpEd Special Educator

as positive on the evaluation, but below the other concepts on the activity factor. Teachers of the learning disabled view the learning disabled student, the emotionally disturbed student, and the regular student as similar, but unlike either the educable mentally retarded student or the special educator and themselves personally. The teachers of the emotionally disturbed showed the greatest dispersion among their concepts of students, but agreed with the other teacher groups in finding great similarity between their concepts of a special educator and "me (myself)." All three teacher groups rated "me (myself)" higher on the evaluation factor than all the other concepts.

Differences in these affective meanings were tested through use of a multivariate analysis of variance, testing hypotheses 1 and 2.

Hypothesis 1

> There are no significant differences among the affective meanings Virginia public school teachers of the educable mentally retarded, learning disabled, and emotionally disturbed assign to their concepts of learning disabled, emotionally disturbed, educable mentally retarded, and regular class students, special educators, and themselves personally, as measured by the three factors of meaning using a semantic differential.

A multivariate analysis of variance (Hull & Nie, 1981, pp. 1-

79) was used to test a series of sub-hypotheses based on this hypothesis. The summary of the analysis of variance is shown in Table 27.

Table 27.

Analysis of Variance Tests of Significance for Score Using Sequential Sums of Squares

Source of Variation	SS	DF	MS	F	P
Within cells	1842.498	2682	.116		
Constant	53465.116	1	53465.116	77825.545	.001
Group	1.873	2	.937	1.364	.256
Concept	317.713	5	63.543	92.495	.001
Factor of meaning	21.306	2	10.653	15.507	.001
Group by concept	12.257	10	1.227	1.784	.058
Group by factor	2.209	4	.552	.804	.523
Concept by factor	485.511	10	45.851	66.742	.001
Group by concept by factor	9.814	20	.491	.714	.815

The sub-hypotheses derived from hupothesis 1 are considered below.

Hypothesis 1-1. There are no significant differences among the three groups of teachers in the affective meanings they assign to the six concepts.

$$H_0 \quad Group_1 = Group_2 = Group_3$$

This hypothesis cannot be rejected. The overall means for the three groups do not differ significantly among themselves or from the grand mean.

Hypothesis 1-2. There are no significant differences among

the meanings of the six concepts, as defined by special educators.

H_0 $C_1 = C_2 = C_3 = C_4 = C_5 = C_6$

This hypothesis was rejected at the .001 level of significance and the alternative hypothesis, that there are significant differences among the concepts as defined by Virginia public school teachers of the learning disabled, educable mentally retarded, and emotionally disturbed, was accepted.

In order to determine which concepts differed among themselves, the MANOVA estimates for score were examined and polynomial contrasts were used. Each concept differed significantly ($p=.05$) from all others, except the concepts "learning disabled student" and "regular class student," which did not differ significantly from each other, for the total group of teachers.

In total concept score, the six concepts ranked from low to high for the total group of teachers as follows: 1) educable mentally retarded student, 2) regular class student, 3) learning disabled student, 4) emotionally disturbed student, 5) special educator, and 6) me (myself).

Hypothesis 1-3. There are no significant differences among the three factors of meaning of the semantic differential as used by the Virginia special educators studied.

H_0 Evaluation = Potency = Activity

This hypothesis was rejected at the .001 level of signifi-

cance, and the alternative hypothesis, that there are significant differences among all three factors of meaning, was accepted. This, of course, confirms the factor analysis that these factors are independent factors of meaning.

Hypothesis 1-4. There are no significant interactions between teacher group and concept.

This hypothesis was rejected (p=.058), and the alternative hypothesis, that significant interactions between group and concept exist, was accepted. Total mean concept scores were calculated for each group of teachers, and the results are shown in Table 28.

Table 28

Total Mean Concept Scores by Group

Group	LD student	ED student	EMR student	Regular student	Special educator	Ma
EMR teacher	12.705	13.326	12.066	13.152	14.253	14.715
LD teacher	13.269	13.296	11.136	12.858	13.918	14.718
ED teacher	12.974	13.500	11.982	12.738	14.058	14.832

The significant interactions affect the concepts "learning disabled student," "educable mentally retarded student," "regular class student," and "special educator." Teachers of the educable mentally retarded differed significantly from teachers of the learning disabled on all of these concepts, and significantly from teachers of the emotionally disturbed for the concept "educable mentally retarded student." These differences are shown in

Figure 6, showing the total concept scores for each group, and the interactions. Thus, teachers of the educable mentally retarded differ significantly from one or both other groups of teachers in the scores assigned to four of the concepts, although not in the scores assigned to "special educator" and "me."

Hypothesis 1-5. There are no significant interactions between group and factor of meaning.

This hypothesis could not be rejected at the .05 level of significance. Group membership did not interact with the three factors of meaning--evaluation, potency, and activity. This result again confirms the stability of these three factors of meaning measured by a semantic differential.

Hypothesis 1-6. There are no significant interactions between concept and factor of meaning.

This hypothesis was rejected at the .001 level of significance, and the alternative hypothesis, that significant interactions occurred between concept and factor of meaning, was accepted. Table 29 shows the mean factor scores for each concept for the total group. As noted earlier, the concept "emotionally disturbed student," received the highest potency score and the lowest evaluation score while the concept "me" received the highest evaluation score and activity scores. These factors are shown in Figure 7, in which seven significant interactions can be identified. It should also be noted that only four of these scores fall below

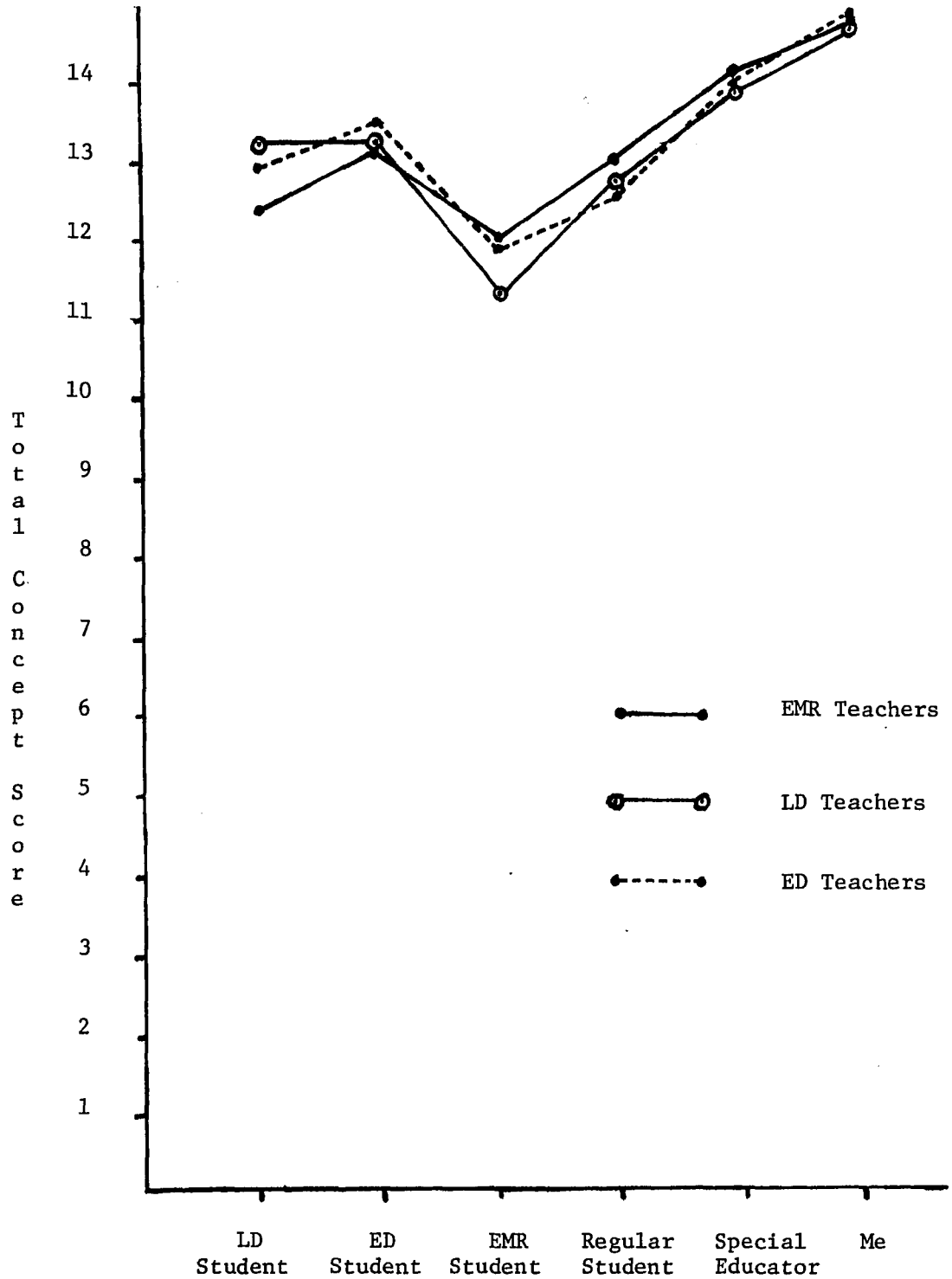


Figure 6 Total Concept Score by Group

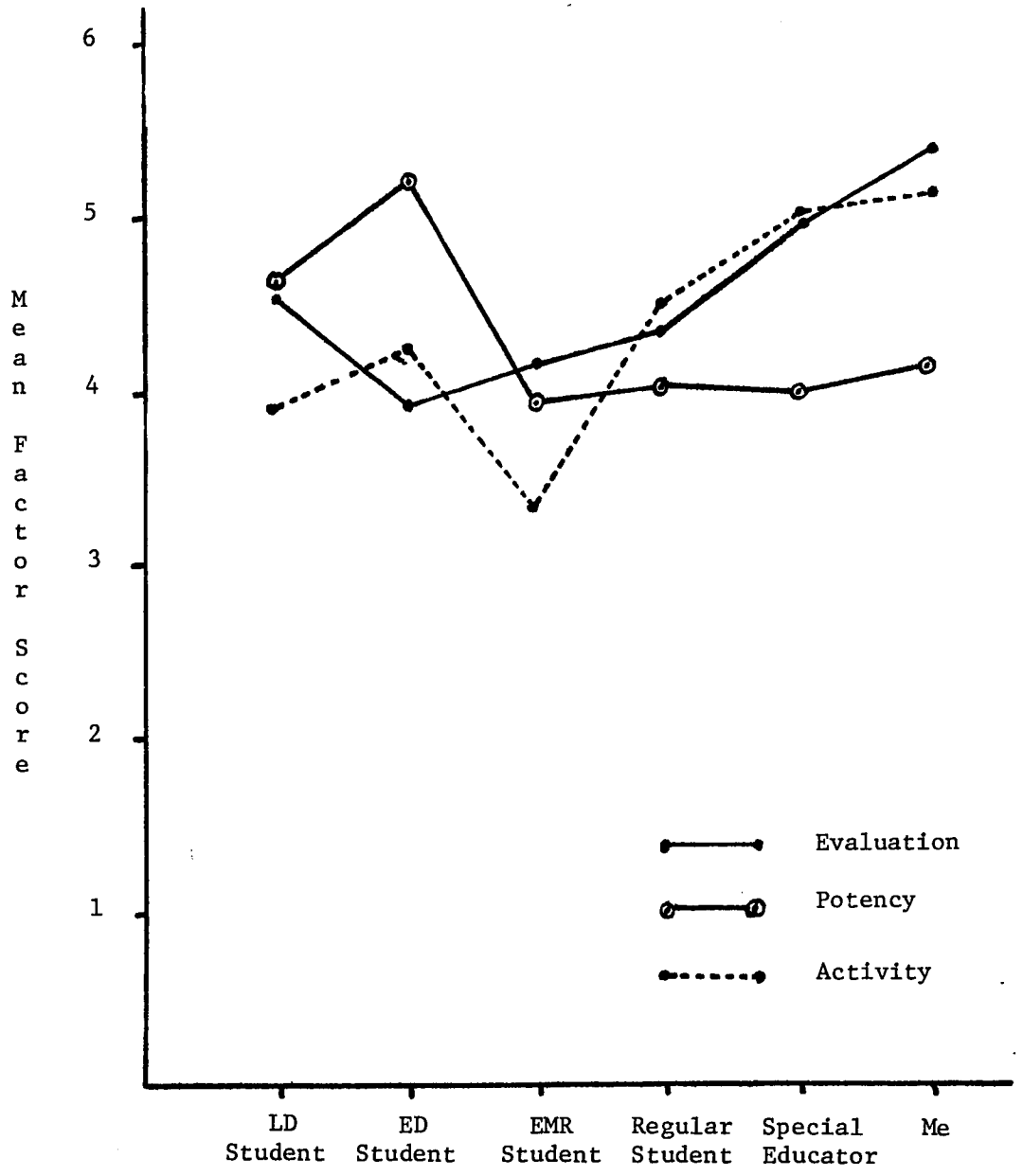


Figure 7 Mean Factor Scores for Each Concept for the Total Group

the 4.0 neutral point into the negative range, and only one of those, the activity score for the concept "educable mentally retarded student," is significantly into the negative range.

Table 29

Mean Factor Scores for Each Concept for the Total Group

Factor of Meaning	LD student	ED student	EMR student	Regular student	Special educator	Me
Evaluation	4.510	3.932	4.159	4.355	4.988	5.410
Potency	4.604	5.215	3.947	4.076	4.067	4.133
Activity	3.929	4.211	3.335	4.495	5.083	5.199

Hypothesis 1-7. There is no significant three-way interaction among group, concept, and factor of meaning.

This hypothesis could not be rejected at the .05 level of significance (p=.815). Thus, the interactions found between group and concept, and between concept and factor of meaning, account for the remaining significant differences not accounted for by differences in concept and in factor of meaning alone.

In summary, significant differences were found among the six concepts, and among the three factors of meaning but not among the three groups of teachers. In addition, significant interactions between group and concept, and between concept and factor of meaning, but not between group and factor of meaning, nor between group, concept and factor of meaning together were identified.

However, although the null hypothesis was rejected, the original alternative hypothesis, that special educators would assign

lower evaluation, potency and activity scores to their concepts of exceptional students than to their concepts of regular class students, special educators, and themselves personally could not be accepted. This hypothesis was based on social pathology theory, but the significant interactions found here demonstrate that the affective meanings special educators assign to these concepts form a more complex semantic space than predicted by this theory.

Hypothesis 2

There are no significant differences in the attitudes (evaluative factor scores) Virginia public school teachers of the learning disabled, emotionally disturbed, and educable mentally retarded hold for students in the category of exceptionality they teach than for students in the other two categories of exceptionality studied.

This hypothesis was also tested through the results of a multivariate analysis of variance (Hull & Nie, 1981, pp. 1-79), as a series of sub-hypotheses, considered below.

Hypothesis 2-1. There is no significant difference between the evaluation factor scores teachers of the educable mentally retarded assign to their concept of an educable mentally retarded student and those they assign to their concepts of a learning disabled student and an emotionally disturbed student.

This hypothesis could not be rejected at the .05 level of

significance. Additionally, the alternative hypothesis, that teachers assigned a higher evaluation score to their concept of the students they served than to their concept of students in other categories of exceptionality was clearly contradicted by the data in the case of teachers of the educable mentally retarded. The teachers of the educable mentally retarded in this study assigned higher evaluation factor scores to their concept of a learning disabled student than to their concept of their own students.

Hypothesis 2-2. There is no significant difference between the evaluation factor scores teachers of the learning disabled assign to their concept of a learning disabled student and those they assign to their concepts of an educable mentally retarded student and an emotionally disturbed student.

This hypothesis was rejected at the .05 level of significance. Teachers of the learning disabled assigned significantly higher evaluation factor scores to their concept of a learning disabled student than to their concepts of an educable mentally retarded student and an emotionally disturbed student. However, this could not be interpreted as an evaluative preference for the students a teacher serves, as teachers in both other groups also assigned higher evaluative factor scores to the learning disabled.

Hypothesis 2-3. There is no significant difference between the evaluation factor scores teachers of the emotionally

disturbed assign to their concept of an emotionally disturbed student and those they assign to their concepts of an educable mentally retarded student and a learning disabled student.

This hypothesis could not be rejected at the .05 level of significance. Teachers of the emotionally disturbed, in common with teachers in the other two groups, assign a higher evaluation factor score to their concept of a learning disabled student than to their concepts of students in the other categories of exceptionality, although the difference was not statistically significant.

In summary, there was no evidence in this study which could indicate a consistent preference by special educators for the students in the category of exceptionality they served over students in other categories of exceptionality, as expressed by their evaluation factor scores on a semantic differential. Rather, teachers serving students in all three categories of exceptionality agreed in assigning higher evaluation factor scores to their concept of a learning disabled student than to their concept of an educable mentally retarded student and an emotionally disturbed student.

Hypothesis 3

There are no significant correlations between the affective meanings Virginia public school teachers of the mentally retarded, learning disabled, and emotionally disturbed assign

to their concepts of educable mentally retarded, learning disabled, emotionally disturbed and regular class students, and special educators and themselves personally, and the factors of age, race, sex, level of education, length of teaching experience, type of service delivery (itinerant, resource, or self-contained), level of service delivery, years in current assignment, special education endorsement, and size of the employing school system.

Prior to testing this hypothesis through use of a multiple regression analysis, the predictor variables were tested for intercorrelation by computation of the zero-order correlations among all the predictor variables, and with the total semantic differential concept scores. The resultant matrix for the predictor variables is shown in Appendix H. Strong correlations were found between age and level of education ($r=.427$, $p=.001$), total years experience ($r=.817$, $p=.001$), and years in current assignment ($r=.522$, $p=.001$). Also, a correlation between size of employing school system and race (black) ($r=.481$, $p=.001$) was identified. For this reason, these variables were tested separately.

The predictor variable, teacher's educational level, only entered into one equation, correlating significantly ($r=.167$, $p=.01$) with the evalution score the total groups' concept of an educable mentally retarded student. As age was a stronger predictor of the same criterion variable ($r=.230$, $p=.004$), educa-

tional level of teachers was not included in the final regression analysis.

Neither total years experience nor years in current assignment proved to be significant predictors of any of the criterion variables, and therefore both were excluded from the final regression analysis.

Although race and size were significantly correlated, these two variables were not found to enter into regression equations for the same criterion variables, and threfore both variables were retained in the final analysis as danger of multicollinearity was limited.

Finally, in the course of computing the zero-order correlations, significant positive correlations were found among the total concept scores, as shown in Table 30. These results confirm the congruity theory of Osgood and his associates (1957) that concepts which are closely related, as these are to a special educator's profession will become clsoely associated, and will cluster in semantic space. This further indicates that in many cases, these affective meanings themselves could be significant predictors for other affective meanings for related concepts.

In testing hypothesis 3, a series of sub-hypotheses were tested. As significant differences were found among concepts, among factors of meaning, and as significant interactions were found between group and concepts, and between concept and factors

Table 30

Correlation Matrix, With Probability Levels, for the Total Concept Scores for the Total Group

	LD student	ED student	EMR student	Regular student	Special educator	Me
LD student	1.000	.541 (.000)	.160 (.049)	.228 (.005)	.172 (.034)	.145 (.075)
ED student		1.000	.163 (.045)	.314 (.000)	.222 (.006)	.134 (.100)
EMR student			1.000	.064 (.430)	.069 (.401)	.186 (.022)
Regular student				1.000	.367 (.000)	.177 (.029)
Special educator					1.000	.516 (.000)
Me						1.000

of meaning, each factor on each concept for each group and for the total group was tested in a separate regression analysis, in addition to tests of total concept score and total factor score for each group of teachers and for the total group. The sub-hypotheses so examined are discussed below.

Hypothesis 3-1. There are no significant relationships between the affective meanings teachers of the educable mentally retarded assign to their concepts of a learning disabled student, an emotionally disturbed student, an educable mentally retarded student, a regular class student, a special educator, and themselves personally and the predictor variables: 1) age, 2) sex, 3) race, 4) special education endorsement, 5) type of service delivery, and 7) size of employing school system.

This hypothesis was tested by stepwise multiple regression with 0.05 probability in, 0.1 probability out, and 0.01 tole-

rance, for each factor of meaning on each concept, and for each total concept score. The results are shown in Table 31. For teachers of the educable mentally retarded, the predictor variables of age, race, special education endorsements in learning disabilities and mental retardation, and itinerant and self-contained service delivery were significantly correlated with two or more of the factors of meaning and affective meanings of concepts studied. Total concept scores for the concepts "learning disabled student," "educable mentally retarded student," and "me (myself)," were not significantly correlated with any of the predictor variables, and evaluation factor scores for all concepts except "regular class student" were not sigificantly correlated with any of the predictors. Sex, level of service delivery (elementary or secondary) and size of employing school system did not correlate significantly with any of the criterion variables. Thus, the hypothesis was only partially rejected.

The predictor variable, race (black), was significantly correlated with the potency factor scores for the concepts "learning disabled student," (r=.4255, p=.003), "emotionally disturbed student," (r=.4708, p=.001), "regular class student," (r=.4724, p=.001), "special educator," (r=.3007, p=.000), and "me (myself)," (r=.4043, p=.001). Race was also significantly correlated with the total concept score for the concept "emotionally disturbed student," (r=.4311, p=.003).

Table 31

Predictor Variables Correlating With Affective Meanings for Teachers of the Educable Mentally Retarded

Concept	Factor	Predictor	Correlation	r^2	r^2 change	Significance of F
LD student	Evaluation	----	----	----	----	----
	Potency	Race (black)	-.4255	.1811	.1811	.003
	Activity	Self-contained	-.2979	.0888	.0888	.044
	Concept	----	----	----	----	----
ED student	Evaluation	----	----	----	----	----
	Potency	Race (black)	-.4708	.2216	.2216	.001
		Self-contained	.5633	.3173	.0957	.000
	Activity	----	----	----	----	----
	Concept	Race (black)	-.4311	.1858	.1858	.003
EMR student	Evaluation	----	----	----	----	----
	Potency	----	----	----	----	----
	Activity	Itinerant	.3711	.1377	.1377	.011
		LD Endorsement	-.3195	.2234	.0857	.004
	Concept	----	----	----	----	----
Regular student	Evaluation	Age	.3562	.1269	.1269	.015
	Potency	Race (black	-.4724	.2231	.2231	.001
		Itinerant	-.3363	.3869	.1638	.000
	Activity	----	----	----	----	----
	Concept	Itinerant	-.3216	.1034	.1034	.029
		Age	.3053	.2072	.1038	.007
Special educator	Evaluation	----	----	----	----	----
	Potency	Self-contained	.4970	.2470	.2470	.000
		Race (black)	-.3007	.3520	.1050	.000
	Activity	----	----	----	----	----
	Concept	ED Endorsement	-.3001	.0901	.0901	.043
Ne	Evaluation	----	----	----	----	----
	Potency	Race (black)	-.4841	.2345	.2345	.001
	Activity	----	----	----	----	----
	Concept	----	----	----	----	----

The predictor variable, self-contained service delivery, was significantly related to the potency scores for the concepts "emotionally disturbed student," (r=.5633, p=.000), and "special educator," (r=.4970, p=.000), and to the activity factor score for the concept, "learning disabled student," (r=.2979, p=.044). The predictor variable, itinerant service delivery, was significantly correlated with the activity factor score for the concept "educable mentally retarded student" (r=.3711, p=.011), and to the potency factor score (r=.3363, p=.000) and total concept score (r=-.3216, p=.029) for the concept "regular class student."

The predictor variable, endorsement in learning disabilities

was significantly related to the activity factor score for the concept, "educable mentally retarded student" (r=-.3195, p=.004). The predictor variable, endorsement in emotional disturbance, was significantly correlated with the total concept score for the concept "special educator," (r=-.3001, p=.043).

Finally, the predictor variable, age, was significantly correlated with the evaluation factor score (r=.3562, p=.015), and with the total concept score (r=.3053, p=.007) for the concept, "regular class student."

Thus, these predictor variables did predict between .089 and .387 of the variance on certain factors of meaning for certain concepts, as perceived by the teachers of the educable mentally retarded. The potency factor of meaning is, for this group of teachers, the factor most frequently correlated with the predictor variables.

Hypothesis 3-2. There are no significant relationships between the affective meanings teachers of the learning disabled assign to their concepts of a learning disabled student, an emotionally disturbed student, an educable mentally retarded student, a regular class student, a special educator, and themselves personally and the predictor variables: 1) age, 2) sex, 3) race, 4) special education endorsement, 5) type of service delivery, 6) level of service delivery, and 7) size of employing school system.

The hypothesis was tested by stepwise multiple regression, with 0.05 probability in, 0.1 probability out, and 0.01 tolerance, for each factor of meaning on each concept, and for each total concept score. The results are shown in Table 32. For teachers of the learning disabled, the predictor variables of age, sex, special education endorsement, type of service delivery (resource or self-contained), and size of the employing school system were significantly correlated with one or more of the affective meanings or factors of meaning studied. However, total concept scores for the concepts "learning disabled student," and "regular class student," were not significantly correlated with any of the predictor variables. The hypothesis was, therefore, only partially rejected.

Table 32

Predictor Variables Correlating With Affective Meanings for Teachers of the Learning Disabled

Concept	Factor	Predictor	Correlation	r^2	r^2 change	Significance of F
LD Student	Evaluation	----	----	----	----	----
	Potency	----	----	----	----	----
	Activity	Sex (female)	.2655	.0705	.0705	.020
	Concept	----	----	----	----	----
ED Student	Evaluation	ED Endorsement	.2296	.0527	.0527	.045
	Potency	----	----	----	----	----
	Activity	Age	.2859	.0817	.0817	.012
		Self-contained	.2320	.1438	.0620	.003
	Concept	Age	.2244	.0504	.0504	.050
		Size	-.1989	.1147	.0643	.011
EMR Student	Evaluation	Age	.2764	.0764	.0764	.015
	Potency	----	----	----	----	----
	Activity	----	----	----	----	----
	Concept	MR Endorsement	.2467	.0609	.0609	.031
Regular student	Evaluation	----	----	----	----	----
	Potency	----	----	----	----	----
	Activity	----	----	----	----	----
	Concept	----	----	----	----	----
Special educator	Evaluation	----	----	----	----	----
	Potency	LD Endorsement	.228	.0524	.0524	.045
	Activity	Resource	.2417	.0584	.0584	.034
		Self-contained	.2882	.1306	.0783	.004
	Concept	Size	-.2686	.0721	.0721	.018
		Resource	.2491	.1300	.0578	.006
Me	Evaluation	----	----	----	----	----
	Potency	----	----	----	----	----
	Activity	----	----	----	----	----
	Concept	LD Endorsement	.2257	.0509	.0509	.048

The predictor variable, sex, was significantly correlated with the activity factor score for the concept "learning disabled student," (r=.2655, p=.020). This predictor did not correlate with any other of the criterion variables.

The activity factor score for the concept "emotionally disturbed student," was significantly correlated with the predictor variables age (r=.2859, p=.012), and self-contained service delivery (r=.2320, p=.003). The predictor variable, age, was also significantly correlated with the evaluation factor score for the concept "educable mentally retarded student," (r=.2764, p=.015).

Endorsement in emotional disturbance was significantly correlated with the evaluation factor score for the concept "emotionally disturbed student," (r=.2296, p=.045), as well as the potency factor score for the concept "special educator," (r=.2288, p=.045). The total concept score for the concept "emotionally disturbed student," was significantly related to the predictors age (r=.2244, p=.050), and size of employing school system (r=-.1989, p=.011).

Total concept score for the concept "educable mentally retarded student," was significantly correlated with endorsement in mental retardation (r=.2467, p=.031), for teachers of the learning disabled.

The activity factor score for the concept "special educator," was significantly related to the predictor variables, resource delivery (r=.2417, p=.034), and self-contained service delivery

(r=.2882, p=.004). Total concept score for the concept "special educator," was significantly related to the predictors, size of employing school system (r=-.2686, p=.018), and resource service delivery (r=.2493, p=.006).

No factor scores for the concept "me (myself)," were significantly related to any of the predictor variables. Total concept score for the concept "me (myself," was significantly related to the predictor, endorsement in learning disabilities (r=.2257, p=.048) for teachers of the learning disabled.

Thus, the predictor variables of age, sex, type of service delivery, special education endorsement, and size of the employing school system predict between .050 and .148 of the variance in certain of the affective meanings studied for teachers of the learning disabled. For these teachers, the activity factor of meaning is the criterion variable most frequently associated with any of the predictor variables.

Hypothesis 3-3. There are no significant relationships between the affective meanings teachers of the emotionally disturbed assign to their concepts of a learning disabled student, an emotionally disturbed student, a regular class student, a special educator, and themselves personally and the predictor variables: 1) age, 2) sex, 3) race, 4) special education endorsement, 5) type of service delivery, 6) level of service delivery, and 7) size of employing school system.

This hypothesis was tested by stepwise multiple regression with 0.05 probability in, 0.1 probability out, and 0.01 tolerance, for each factor of meaning on each concept, and for each total concept score. The results are shown in Table 33. For teachers of the emotionally disturbed, the predictor variables of age, sex, special education endorsement, type of service delivery, and size of employing school system were significantly related to one or more of the criterion variables studied. However, as the predictor variables of race and level of service delivery were not significantly related to any of the criterion variables, and certain factors of meaning on all six concepts were not significantly related to any of the predictor variables, the hypothesis was again only partially rejected.

The predictor variable, itinerant service delivery, was significantly correlated with the evaluation factor scores for the concepts "learning disabled student," (r=.4627, p=.011), and "special educator," (r=.4315, p=.019), and to the activity factor score (r=.4429, p=.016), and total concept score (r=.5987, p=.001) for the concept "regular class student." The predictor variable, resource service delivery, was significantly related to the potency factor score for the concept "learning disabled student," (r=.4384, p=.017), and to the total concept score for the concept "special educator," (r=-.3586, p=.003). The predictor variable, self-contained service delivery, was significantly correlated with the total con-

Table 33

Predictor Variables Correlating With Affective Meanings for Teachers of the Emotionally disturbed

Concept	Factor	Predictor	Correlation	r^2	r^2	Significance of F
LD Student	Evaluation	Itinerant	.4627	.2141	.2141	.011
	Potency	Resource	.4384	.1922	.1922	.017
	Activity	----	----	----	----	----
	Concept	Self-contained	-.4410	.1944	.1944	.017
		LD Endorsement	.4236	.3693	.1748	.003
ED student	Evaluation	----	----	----	----	----
	Potency	----	----	----	----	----
	Activity	MR Endorsement	-.4337	.1881	.1881	.019
	Concept	Size	-.3707	.1375	.1375	.046
EMR student	Evaluation	----	----	----	----	----
	Potency	Level (Secondary)	.4150	.1723	.1723	.025
	Activity	Self-contained	-.3885	.1509	.1509	.037
	Concept	Self-contained	-.4441	.1972	.1972	.016
Regular student	Evaluation	LD Endorsement	.5275	.2783	.2783	.003
		MR Endorsement	-.4104	.5156	.2374	.000
		Self-contained	-.3005	.6719	.1563	.000
		ED Endorsement	.2660	.7247	.0528	.000
	Potency	----	----	----	----	----
	Activity	Itinerant	.4429	.1962	.1962	.016
		Sex (female)	-.3827	.3610	.1649	.003
	Concept	Itinerant	.5987	.3584	.3584	.001
		Size	-.4377	.4732	.1148	.000
Special educator	Evaluation	Itinerant	.4315	.1862	.1862	.019
		Age	-.4051	.3100	.1298	.007
		Self-contained	.1211	.3491	.1191	.002
	Potency	----	----	----	----	----
	Activity	LD Endorsement	.4317	.1864	.1864	.019
	Concept	LD Endorsement	.4363	.1903	.1903	.018
		Resource	-.3586	.3687	.1784	.003
		Age	-.2459	.4610	.0923	.001
Me	Evaluation	LD Endorsement	.4188	.1754	.1754	.025
	Potency	----	----	----	----	----
	Activity	----	----	----	----	----
	Concept	LD Endorsement	.4307	.1855	.1855	.020

cept score for the concept "learning disabled student," (r=-.4410, p=.037), and total concept score (r=-.4441, p=.016) for the concept "educable mentally retarded student," and with the evaluation factor scores for the concepts "regular class student," (r=-.3005, p=.006) and "special educator," (r=.1211, p=.002).

The predictor variable, endorsement in learning disabilities was significantly correlated with the evaluation factor scores for the concepts "regular class student," (r=.5275, p=.003), and "me

(myself)," (r=.4188, p=.024), and with the total concept scores for the concepts "learning disabled student," (r=.4236, p=.003), "special educator," (r=.4363, p=.018), and "me (myself)," (r=.4307, p=.020). The predictor variable, endorsement in mental retardation, was significantly correlated with the activity factor score for the concept "emotionally disturbed student," (r=-.4337, p=.019) and the evaluation factor score for the concept "regular class student," (r=-.4104, p=.000). The predictor variable, endorsement in emotional disturbance, was significantly correlated with the evaluation factor score for the concept "regular class student," (r=.2660, p=.000), and with the activity factor score for the concept "special educator," (r=.4317, p=.019).

The predictor variable, age, was significantly correlated with the evaluation factor score (r=-.4051, p=.007), and the total concept score (r=-.2459, p=.001) for the concept "special educator." This is the only instance in this study in which the predictor variable age was negatively correlated with any criterion variable for any group.

The predictor variable, sex, was significantly correlated with the activity factor score for the concept "regular class student," (r=-.3827, p=.003). The predictor variable, secondary level, was significantly correlated with the potency factor score for the concept "educable mentally retarded student," (r=.4150, p=.025). Finally, the predictor variable, size of employing school system,

was significantly correlated with the total concept score for the concepts "emotionally disturbed student," (r=-.3707, p=.048), and "regular class student," (r=-.4377, p=.000).

In summary, for teachers of the emotionally disturbed, the predictor variables of age, sex, special education endorsement, level of service delivery, and size of employing school system were found to predict between .1375 and .7247 of the variance of the three factors of meaning across the six concepts, and the total concept scores.

Hypothesis 3-4. There are no significant relationships between the affective meanings Virginia special educators serving the educable mentally retarded, learning disabled, and emotionally disturbed assign to their concepts of a learning disabled student, an emotionally disturbed student, an educable mentally retarded student, a regular class student, a special educator, and themselves personally, and the predictor variables: 1) age, 2) sex, 3) race, 4) special education endorsement, 5) type of service delivery, 6) level of service delivery, and 7) size of employing school system.

This hypothesis was tested by stepwise multiple regression with 0.05 probability in, 0.1 probability out, and 0.01 tolerance. The results are shown in Table 34. For Virginia special educators serving the educable mentally retarded, learning disabled, and emotionally disturbed, the predictor variables of age, race, spe-

Table 34

Predictor Variables Correlating With Affective Meanings for the Total Group of Teachers

Concept	Factor	Predictor	Correlation	r^2	r^2	Significance of F
LD student	Evaluation	----	----	----	----	----
	Potency	Race (black)	-.2569	.0660	.0660	.001
	Activity	----	----	----	----	----
	Concept	LD Endorsement	.1936	.0375	.0375	.017
ED student	Evaluation	----	----	----	----	----
	Potency	Size	-.2185	.0477	.0477	.007
	Activity	Age	.1880	.0354	.0354	.020
	Concept	Size	-.2688	.0722	.0722	.001
EMR student	Evaluation	Age	.2297	.0528	.0528	.004
		Size	-.1563	.0880	.0352	.001
	Potency	MR Endorsement	.2198	.0483	.0483	.007
	Activity	LD Endorsement	-.1730	.0299	.0299	.003
	Concept	MR Endorsement	.2328	.0542	.0542	.004
Regular student	Evaluation	----	----	----	----	----
	Potency	Race (black)	-.2255	.0509	.0509	.005
		MR Endorsement	.1742	.0436	.0428	.001
	Activity	LD Endorsement	-.2249	.0506	.0506	.005
	Concept	----	----	----	----	----
Special educator	Evaluation	Size	-.1815	.0330	.0330	.025
	Potency	Self-contained	.1650	.0272	.0272	.042
	Activity	----	----	----	----	----
	Concept	Size	-.1829	.0334	.0334	.024
Me	Evaluation	----	----	----	----	----
	Potency	Race (black)	-.2217	.0492	.0492	.006
	Activity	----	----	----	----	----
	Concept	----	----	----	----	----

cial education endorsement, self-contained service delivery, and size of employing school system were were significantly correlated with one or more of the factors of meaning and affective meanings measured. However, as the predictor variables of sex, and resource and itinerant service delivery were not significantly related to any of the factors or concepts, and seven of the factor scores on certain concepts, and the total concept scores for the concepts "regular class student," and "me (myself)," were not correlated with any of the predictor variables, the hypothesis was only partially rejected.

The predictor variable, age, was significantly correlated with

the activity factor score for the concept "emotionally disturbed student," (r=.1880, p=.020), and with the evaluation factor score for the concept "educable mentally retarded student," (r=.2297, p=.004). The predictor variable, race, was significantly correlated with the potency factor scores for the concepts "learning disabled student," (r=-.2569, p=.001), "regular class student," (r=-.2255, p=.005), and "me (myself)," (r=-.2217, p=.006).

The predictor variable, endorsement in learning disabilities was significantly correlated with the activity factor scores for the concepts "educable mentally retarded student," (r=-.1730, p=.003), and "regular class student," (r=-.2249, p=.005), and to the total concept score for the concept "learning disabled student," (r=.1936, p=.017). The predictor variable, endorsement in mental retardation, was significantly correlated with the potency factor scores for the concepts "educable mentally retarded student," (r=.2198, p=.007), and "regular class student," (r=.1742, p=.001), and with the total concept score for the concept, "educable mentally retarded student," (r=.2328, p=.004). The predictor variable, self-contained service delivery, was significantly correlated with the potency factor score for the concept "special educator," (r=.1650, p=.042).

Finally, the predictor variable, size of employing school system, was significantly correlated with the potency factor score for the concept "emotionally disturbed student," (r=-.2185, p=.007),

with the evaluation factor scores for the concepts "educable mentally retarded student," (r=-.1563, p=.001), and "special educator," (r=-.1815, p=.025), and with the total concept scores for the concepts "emotionally disturbed student," (r=-.2686, p=.001), and "special educator," (r=-.1829, p=.024).

Thus, the predictor variables age, race, endorsements in mental retardation and learning disabilities, self-contained service delivery, and size of the employing school system, were found to predict between .0272 and .0936 of the variance in affective meanings and factor scores for Virginia public school teachers of the educable mentally retarded, learning disabled, and emotionally disturbed.

In all, the predictor variables of age; sex; race; special education endorsements in mental retardation, learning disabilities, and emotional disturbance; level of service delivery; itinerant, resource, and self-contained service delivery; and size of employing school system were studied in relation to the three factors of meaning across six concepts, and the six concept scores for the three subgroups of special education teachers, and for the total group. Appendix I shows the correlations between each predictor variable and all of the criterion variables for each subgroup and for the total group. The predictor, race (black) was significantly correlated with nine of the ninety-six criterion variables, predicting between 4.92% and 23.44% of the variance in these scores.

The predictor, age, also correlated with nine of the criterion variables, predicting between 3.53% and 16.41% of the variance of these scores. Sex predicted 7.05% of the variance on one score and 16.4% of the variance on a second score, neither of them total concept scores. Level of service delivery predicted 17.22% of the variance on a single score.

The predictors, endorsement in special education, were strong predictors of several scores. Endorsement in mental retardation correlated with three criterion variables, of the ninety-six, predicting 6.09% to 18.81% of the variance of the scores. Endorsement in learning disabilities correlated with ten of the criterion scores, predicting between 2.99% and 27.83% of these scores. Endorsement in emotional disturbance was correlated with five of the criterion scores, predicting between 5.23% and 18.64% of the variance of these scores. Thirteen of these eighteen correlations were positive. Of special note is the fact that endorsement in mental retardation correlated significantly and positively with total concept score for the concept "educable mentally retarded student," for teachers of the learning disabled, and endorsement in learning disabilities correlated significantly and positively with total concept score for the concept, "learning disabled student," for teachers of the emotionally disturbed and for the total group of teachers.

Type of service delivery also proved to be a strong predictor. Itinerant service delivery was correlated with seven of the ninety-

six criterion variables, predicting between 10.34% and 35.84% of the variance of these scores. Resource service delivery was correlated with four of the criterion variables, predicting between 5.84% and 19.22% of the variance in these scores. Self-contained service delivery was correlated with eleven of the criterion variables, predicting between 1.47% and 31.73% of the variance of these scores. Four of the correlations between self-contained service delivery and the criterion measures were negative.

Size did not predict a large percent of the variance in any given score (between 3.29% and 19.16%), and was only significantly correlated with nine of the ninety-six criterion scores. However, all of the correlations between size and any of the criterion variables, significant or not, were negative. Thus, size of the employing system is correlated with decreases in affective meanings of the concepts of a "learning disabled student," an "emotionally disturbed student," an "educable mentally retarded student," a "regular class student," a "special educator," and "me (myself)," as defined by Virginia public school special educators serving the educable mentally retarded, learning disabled and emotionally disturbed.

Summary

The affective meanings Virginia public school special educators serving the educable mentally retarded, learning disabled, and emotionally disturbed assign to their concepts of a "learning dis-

abled student," an "emotionally disturbed student," an "educable mentally retarded student," a "regular class student," a "special educator," and "me (myself)," were defined as the mean factor scores for each group of teachers on the three factors of meaning--evaluation, potency, and activity--measured by the semantic differential. These affective meanings were also used to plot the three-dimensional semantic space for each group of teachers.

Teachers of the educable mentally retarded clustered the educable mentally retarded and learning disabled below other concepts on the potency and activity factor scores. Teachers of the learning disabled separated the educable mentally retarded from their concepts of the other three types of students. Teachers of the emotionally disturbed showed the greatest dispersion among their concepts of students. All the teacher groups agreed in separating their concepts of "special educator," and "me (myself)," from all those of students, and defining them as more active and evaluatively more positive.

Hypothesis 1, that there were no significant differences among the affective meanings of the concepts, a "learning disabled student," an "emotionally disturbed student," an "educable mentally retarded student," a "regular class student," a "special educator," and "me (myself)," as perceived by Virginia special educators serving the educable mentally retarded, the learning disabled, and the emotionally disturbed, was tested through multivariate analysis,

and was rejected ($p<.05$). Significant differences were found among the concepts ($p=.001$), and among the factors of meaning ($p=.001$). All the concepts differed significantly from each other ($p=.05$) except the concepts "learning disabled student," and "regular class student," which did not differ significantly from each other for the total group of special educators studied. Significant interactions were found between group and concept ($p=.058$), and between concept and factor of meaning ($p=.001$). Teachers of the educable mentally retarded differed significantly from the other two groups in their perception of the concepts "learning disabled student," "emotionally disturbed student," "educable mentally retarded student," and "regular class student." No significant interactions were found between group and factor of meaning, or between group, concept, and factor of meaning.

Although the null version of hypothesis 1 was rejected, the alternative hypothesis based on social pathology theory, that special educators assign lower evaluation, potency, and activity scores to their concepts of all exceptional students than to their concepts of regular class students, special educators, and themselves personally, could not be accepted. Rather, the semantic space of special educators serving the learning disabled, emotionally disturbed, and educable mentally retarded in Virginia public schools was more complex than predicted by any current theory.

Hypothesis 2, that there were no significant differences in

the evaluative factor scores (attitudes) Virginia public school teachers of the educable mentally retarded, learning disabled, and emotionally disturbed hold for the category of exceptional students they serve as compared with the other two categories of exceptional students studied was only partially rejected. Teachers of the learning disabled assigned a significantly higher evaluation factor score to their concept of "learning disabled student." However, both teachers of the educable mentally retarded and emotionally disturbed assigned a higher evaluation factor score to their concept of "learning disabled student," than to their concepts of an "emotionally disturbed student," and an "educable mentally retarded student," though these differences were not significant. Thus, there was no indication that each group of teachers would prefer the category of exceptional students they themselves served, as indicated by their evaluation factor scores.

Hypothesis 3, that there were no significant relationships between the affective meanings Virginia public school teachers of the educable mentally retarded, learning disabled, and emotionally disturbed assigned to the six concepts and the predictor variables of 1) age, 2) race, 3) sex, 4) level of education, 5) length of teaching experience, 6) type of service delivery, 8) years in current assignment, 9) special education endorsement, and 10) size of the employing school system, was partially rejected. Significant correlations were not found between the predictor variables

of total years experience and years in current assignment, which were therefore excluded from the final analysis. Level of education, which correlated highly with age ($r=.427$, $p=.001$) did not serve as a strong predictor of any of the criterion variables, and was therefore also excluded from the final regression analysis. The remaining predictor variables were tested against each of ninety-six criterion variables (each factor on each concept for each group and the total group of teachers, and the total concept scores for the four subject groups) in stepwise multiple regression analyses. Level of service delivery (elementary or secondary) and sex were also not found to be very strong predictors, being correlated with only one or two factors of meaning on single concepts for a single group of teachers. The remaining predictor variables were found, alone or in combination, to predict between 3% and 72% of the variance in the criterion variables. Endorsements in special education and type of service delivery were found to be the strongest and most universal predictors of the affective meanings studied. Race and size of the employing school system were found to have a consistently negative though not always significant relation to the affective meanings studied.

In addition, significant positive correlations were identified among the affective meanings of the six concepts studied, confirming that these concepts are drawn from the common base of a special educator's professional experience and belong within a single semantic space.

Chapter 5

Summary, Discussion, and Conclusions

The purpose of this study was to explore the affective meanings, as defined through use of a semantic differential instrument, that special educators serving the mentally retarded, learning disabled and emotionally disturbed in Virginia public schools assign to their concepts of certain exceptional and regular class students, special educators, and themselves personally, and to identify relationships between these affective meanings and the age, race, sex, educational background, and teaching experience of teachers.

Previous research into these affective meanings and the expectations held concerning exceptional children by special educators, although not conclusive, provides some support for a view that professionals, in common with lay people, employ a social pathology model in their approach to handicapped persons. Attitudes toward exceptional children have been shown to be multifaceted (Antonak, 1980b; Greer, 1975; Harth, 1971; Jones, 1974; Tringo, 1970), and to be more negative than attitudes toward normal children (Antonak, 1980b; Jones, 1974; Panda & Bartel, 1972). Evidence concerning the specific attitudes of special educators is mixed but indicates the need for concern (Gillung & Rucker, 1977; Greenbaum & Wang, 1965; Harasymiw et al., 1976; Smith, 1975). Factors which may relate to attitudes toward the exceptional

include age, sex, educational level, teaching experience, grade level taught, and size and location of the school district.

Research into labeling and stereotyping of the exceptional (Algozzine et al., 1978; Carroll & Reppucci, 1978; Foster & Keech, 1977; Gillung & Rucker, 1977; Jacobs, 1978; Parish et al., 1979; Young et al., 1979; Ysseldyke & Foster, 1978) confirms that the exceptional are viewed more negatively than the non-exceptional, and that the stereotype of the label sets up response biases, such as recommending more restrictive placement for labeled students.

Studies of expectancy effects in educational settings suggest that the stereotyping and labeling of exceptional students may be a factor in the development of negative expectancies by teachers which may in turn effect student achievement (Alper & Retish, 1978; Good, 1981; Severance & Gasstrom, 1977; Stoller et al., 1981). In addition, the attitudes of special educators have been found to relate to those of the regular educators in the same building, providing a model which regular educators follow (Guerin & Szatlocky, 1974; Mandell & Strain, 1978). Thus, the need to develop adequate information concerning the affective meanings special educators assign to their concepts of exceptional students, normal students, and themselves, and of factors related to these meanings becomes apparent.

An ex post facto design using a personal information questionnaire and a semantic differential device was used to study the

affective meanings that a 5% random sample of teachers serving the educable mentally retarded, learning disabled, and emotionally disturbed in Virginia public schools assign to their concepts of a "learning disabled student," an "emotionally disturbed student," an "educable mentally retarded student," a "regular class student," a "special educator," and "me (myself)." The semantic differential, developed by Osgood and his associates (1957), was chosen as the most suitable instrument for assessing the affective meanings of interest as it provides scores across a variety of concepts and has a multi-faceted capacity appropriate to the nature of the attitudes in question.

Differences in attitudes across the six concepts and the three groups were tested on the three factors of meaning measured by the semantic differential--evaluation, potency, and activity--using a 3 x 6 x 3 multivariate analysis of variance. The relationships between these affective meanings and the teacher's age, race, sex, level of education, special education endorsements, length of teaching experience and years in current assignment, type and level of service delivery, and size of the employing school system were tested using a series of stepwise multiple regression analyses.

The affective meanings Virginia public school special educators assign to their concepts of certain exceptional students, regular class students, special educators, and themselves personally were defined as the mean evaluation, potency, and activity scores

for each concept for each group of teachers. These affective meanings, defined by the orthogonal factors of meaning, were also used to plot the three-dimensional semantic spaces of the three groups of teachers. Teachers of the educable mentally retarded clustered the educable mentally retarded and the learning disabled below other concepts on the potency and activity scores. Teachers of the learning disabled separated the educable mentally retarded from their concepts of the other three types of students. Teachers of the emotionally disturbed showed the greatest dispersion among their concepts of students. All the teacher groups agreed in separating their concepts of "special educator," and "me (myself)," from all their concepts of students, and defining them as more active and evaluatively more positive.

Hypothesis 1, that there were no significant differences among the affective meanings of the concepts studied, as perceived by Virginia special educators serving the educable mentally retarded, learning disabled, and emotionally disturbed in public schools was rejected ($p=.05$). Significant differences were found among concepts ($p=.001$), and among factors of meaning ($p=.001$). All the concepts differed significantly from each other ($p=.05$) except the concepts "learning disabled student," and "regular class student," which did not differ significantly from each other for the total group of special educators studied. A significant interaction was found between group and concept ($p=.058$). Teachers of the educable

mentally retarded differed significantly from the other teacher groups in their perceptions of the concepts, "learning disabled student," "emotionally disturbed student," "educable mentally retarded student," and "regular class student." Significant interactions were found between concept and factor of meaning ($p=.001$), with the concept "emotionally disturbed student" receiving the highest potency score and the lowest evaluation score, while the concept "me" received the highest evaluation and activity scores, and the concept "educable mentally retarded student," received the lowest potency and activity scores. No significant interactions were found between group and factor of meaning, or between group, concept and factor of meaning. Other than the fact that the activity scores for exceptional student scores were consistently lower than those for regular students, special educators, and themselves personally, no evidence was found to support the belief that special educators in Virginia public schools rely on a social pathology model in their interpretation of handicap. Rather, the semantic space of special educators in Virginia public schools was found to be more complex than that predicted by any current theory.

Hypothesis 2, that there were no significant differences in the evaluation factor scores (attitudes) Virginia public school teachers of the educable mentally retarded, learning disabled, and emotionally disturbed hold for the category of exceptional students

they serve as compared with the evaluation factor scores they assign to the other categories of exceptionality studied, was only partially rejected. Teachers of the learning disabled did assign a significantly higher evaluation factor to their concept of "learning disabled student." However, both teachers of the educable mentally retarded and emotionally disturbed assigned a higher evaluation factor score to their concept of "learning disabled student," than to their concepts of an "emotionally disturbed student," and "educable mentally retarded student," though these differences were not significant.

Hypothesis 3, that there were no significant relationships between the affective meanings Virginia public school teachers of the educable mentally retarded, learning disabled, and emotionally disturbed assigned to the six concepts and the predictor variables studied was partially rejected, based on a series of stepwise multiple regression analyses. The predictor variables of age, race, special education endorsement, type of service delivery, and size of employing school system were found to be significantly correlated with several of the factors of meaning or total concept scores studied, and to predict, alone or in combination, between 3% and 72% of the variance in these scores. Endorsements in special education and type of service delivery were found to be the strongest, and most universal predictors of the affective meanings studied. Age was positively, though not always significantly cor-

related with affective meaning except for the perception of the concept "special educator," by teachers of the emotionally disturbed. However, the sample was markedly skewed by age, which may conceal a curvilinear relation not found here. Race and size of employing school system were found to have a consistently negative, though not always significant relation to the affective meanings studied. Level of service delivery and sex were not found to be strong predictors of affective meaning, nor was educational level, which was also highly correlated with age. Total years experience and years in current assignment were not found to be significantly related to the affective meanings studied.

In addition, significant positive correlations were identified among the affective meanings of the six concepts studied, confirming that these concepts were drawn from the common base of a special educator's professional experience and belonged within a single semantic space.

Discussion

The semantic differential provides a measure of the affective meaning various concepts hold for the respondent across three factors of meaning: evaluation, potency, and activity.

The evaluation factor, characterized by such adjective pairs as "good-bad" and "beautiful-ugly" is a measure of the positive-negative response evoked by a concept. In the case of the concept, "educable mentally retarded student," this factor may also be sen-

sitive to what Harth (1971) termed attributions of overfavorable characteristics. It is important to note that, for Virginia public school special educators of the educable mentally retarded, learning disabled, and emotionally disturbed, none of the mean evaluation factor scores fell significantly below the 4.0 neutral point on the scale, even for the concept "emotionally disturbed student," which received the lowest score on this factor.

The potency factor provides a measure of the perceived impact the concept object has on the environment. Thus, the concept "emotionally disturbed student," was rated by all teachers as impacting most strongly, though not necessarily positively, on the environment. It is also of some concern that Virginia public school special educators assigned lower potency factor scores to their concepts of "special educator," and "me (myself)," than to their concepts of all students except "educable mentally retarded students," as perceived by teachers of the learning disabled and the emotionally disturbed. If this indicates that Virginia special educators perceive students as having a stronger impact on teachers than teachers do on students this perception could result in teachers limiting their efforts in instructional areas.

The factor, activity, is not a simple measure of perceived physical motion, but rather a measure of active participation. It is of interest that, for Virginia public school special educators, this is the only factor of meaning on which concepts of exceptional

students are clearly scored below concepts of regular students and special educators and themselves personally. Exceptional students in all three categories are not seen as being as active as the non-exceptional. This may be of concern if this perception by special educators of a relatively low level of active participation by exceptional students forms a part of the teacher expectations for exceptional students. Further, these scores could be an expression of a reliance on a social pathology model for the interpretation of exceptionalities.

It is also interesting to note that teachers of the educable mentally retarded perceive strong similarities between their own students and learning disabled students, while teachers of the learning disabled perceive strong similarities among their own students and emotionally disturbed and regular class students, and teachers of the emotionally disturbed show a greater tendency to draw distinctions among all four groups of students. It should also be noted that, while all three teacher groups perceive a strong similarity between their concepts of "special educator," and "me (myself)," the personal concept is rated equal to or higher than the "special educator," on all factors by all teacher groups.

These differences in concept score ($p=.001$), factor of meaning ($p=.001$), in concept by group ($p=.058$) and in factor of meaning by concept ($p=.001$) were found to be significant.

Predictor variables including age, sex, race, level of educa-

tion, level of service delivery, type of service delivery, total years teaching experience, years in current assignment, special education endorsement, and size of employing school system were tested for relation to the affective meanings studied.

Where age was significantly correlated with affective meaning, the relationship was positive (r between .1880 and .3562) except in the attitudes of teachers of the emotionally disturbed toward the concept "special educator," (r=-.4051). This generally confirms the results of Hughes and associates (1973) but contradicts those of Gottlieb and Corman (1975). Sex (female) again showed mixed effects, being positively related to ratings by teachers of the educable mentally retarded of the concept "learning disabled student," on the activity factor (r=.2655) and negatively correlated with ratings by teachers of the emotionally disturbed for the concept "regular class student," on the activity factor (r=-.3827), and not significantly related to other affective meanings.

The negative relationship between race and affective meanings was only found for teachers of the educable mentally retarded, and affected potency ratings on five of the concepts (all but those of their own students). Further study of this correlation is needed.

Level of education, total years of teaching experience, and years in current assignment were not found to correlate significantly with the affective meanings studied. Previous studies (Gillung &

Rucker, 1976; Gottlieb & Corman, 1973; Greenbaum & Wang, 1965; Jordan & Proctor, 1969; Tringo, 1970) had also failed to reveal a consistent pattern of relationship between these predictors and affective meanings.

Itinerant, resource, and self-contained service delivery were all found to correlate significantly with the affective meanings studied. Itinerant service delivery had a strong positive relationship with the affective meanings expressed by teachers of the emotionally disturbed (r between .4315 and .5987), a mixed relation with the affective meanings expressed by teachers of the educable mentally retarded (r=.3711; -.3363), and no relation to the affective meanings expressed by teachers of the learning disabled. Relationships between both resource and self-contained service delivery and the affective meanings studied were strong though mixed. In particular, self-contained placement correlated negatively with the affective meanings expressed by teachers of the emotionally disturbed for other exceptional students. This may be due to a lack of experience with learning disabled and educable mentally retarded students by teachers restricted through self-contained placement with the emotionally disturbed, and as such would not be of concern unless noncategorical service delivery is considered, or these teachers are serving as models for attitudes toward the exceptional by regular teachers in their building.

Special education endorsements correlated positively with

expressed affective meanings of special educators' concepts of students in the category of endorsement. There were occasional negative correlations between an endorsement and affective meaning of students in other categories of exceptionality. In general, however, the course work related to a particular exceptionality which leads to endorsement in that exceptionality correlates positively with the affective meaning expressed for students in that category of exceptionality. This confirms previous findings on the effect of special education course work, or knowledge of an exceptionality, (Harth, 1971; Gottlieb & Corman, 1975; Kennon & Sandoval, 1978).

The relationship between size of the employing school system and affective meanings studied was consistently negative (r between -.1563 and -.4377). The only concepts for which a significant correlation did not exist were a "learning disabled student," and "me (myself)." Teachers of the educable mentally retarded did not demonstrate any correlation between affective meanings expressed and the predictor, size of employing system. The nature of this relationship and its further ramifications needs additional study.

Conclusions

The purpose of this study was to explore the affective meanings special educators in Virginia public schools teaching the educable mentally retarded, learning disabled, and emotionally disturbed assign to their concepts of a "learning disabled student," an

"emotionally disturbed student," an "educable mentally retarded student," a "regular class student," a "special educator," and "me (myself)," and to identify variables which might correlate with and predict these affective meanings.

Data collected from a sample of 152 teachers by a mailed survey procedure utilizing a personal information questionnaire and a semantic differential instrument were analyzed using a 3 x 6 x 3 multivariate analysis and a series of stepwise multiple regressions. The results permitted the following conclusions to be drawn.

1. Significant differences exist among the affective meanings of the concepts: "learning disabled student," "emotionally disturbed student," "educable mentally retarded student," "regular class student," "special educator," and "me (myself)," as perceived by special educators serving the learning disabled, emotionally disturbed and educable mentally retarded in public schools in Virginia, ($p=.001$). Each concept studied had a distinctive affective meaning different from that of all other concepts ($p=.05$) except the concepts a "learning disabled student," and a "regular class student," which did not differ significantly in their affective meanings from each other.

2. Significant differences exist among the three factors of meaning measured by a semantic differential. The evaluation, potency, and activity factors tap distinct and different factors of affective meaning, revealing different facets of the perceptions of the con-

cepts studied.

3. There are no significant differences among the teachers of the learning disabled, educable mentally retarded, and emotionally disturbed in Virginia public schools in the affective meanings they perceive for concepts related to their profession.

4. There are significant interactions between concept and teacher group. These interactions are most apparent in the affective meanings of the concepts "learning disabled student," and "educable mentally retarded student," as perceived by teachers of the educable mentally retarded, and the learning disabled. These two teacher groups rated the affective meaning of the concept of their own students significantly higher than their concept of the other categories of exceptional students. Interactions between group and concept also affected the meanings of the concepts "emotionally disturbed student," and "regular class student," though not to as marked an extent.

5. There are significant interactions between concept and factor of meaning ($p=.001$). The concept, "emotionally disturbed student," is perceived as significantly higher on the potency factor than other concepts, and significantly lower on the evaluation factor. The concepts "special educator," and "me (myself)," are perceived as significantly higher on the evaluation and activity factors than other concepts. The concept "educable mentally retarded student," is perceived as lowest on both the activity and potency

factors.

6. Teachers of the learning disabled perceive learning disabled students as being higher, evaluatively, than they perceive their concepts of other categories of exceptionality, a trend which is also shown by teachers of the educable mentally retarded and the emotionally disturbed, though the differences were not significant for the last two groups of teachers. Thus, teachers of exceptional children in Virginia public schools do not always rate their own students higher than they do students in other exceptional categories.

7. Although Virginia teachers of the learning disabled, emotionally disturbed, and educable mentally retarded rated their concepts of a "special educator" and "me (myself)," higher than other concepts on the evaluation and activity factors, they rated these concepts significantly lower on the potency factor than on the other two factors.

8. Virginia special educators serving the learning disabled, emotionally disturbed, and educable mentally retarded in public schools perceived exceptional students, as represented by the concepts "learning disabled student," "educable mentally retarded student," and "emotionally disturbed student," lower on the activity factor than their concepts of the non-handicapped. This difference was significant for the concepts "learning disabled student," and "educable mentally retarded student."

9. The predictors, level of education, length of teaching experience, and years in current assignment were not significantly correlated with any of the affective meanings studied.

10. The predictors, sex, and level of service delivery were not strongly correlated with affective meanings, being related to a single factor on only one or two concepts each, and not accounting for much variance in affective meaning.

11. The predictor variables 1) age, 2) race, 3) type of service delivery, 4) special education endorsement, and 5) size of employing school system were significantly correlated with several of the affective meanings of the concepts a "learning disabled student," an "emotionally disturbed student," an "educable mentally retarded student," a "regular class student," a "special educator," and "me (myself)," as perceived by Virginia special educators serving the educable mentally retarded, learning disabled, and emotionally disturbed in public schools. The correlations were largely positive, except in the case of race as a predictor of the attitudes of the teachers of the educable mentally retarded, self-contained service delivery as a predictor of the attitudes of the teachers of the emotionally disturbed, and size of employing system as a predictor or the attitudes of both teachers of the learning disabled and the emotionally disturbed.

12. Endorsements in special education correlated significantly and positively with attitudes toward that category of ex-

ceptionality, but were occassionally negatively correlated with attitudes toward other categories of exceptionality. Thus, it was concluded that the course work and increased knowledge involved in obtaining endorsement in a particular area of special education was significantly correlated with positive attitude toward students in that category of exceptionality.

Implications for Future Research

The affective meanings special educators serving the learning disabled, educable mentally retarded, and emotionally disturbed in Virginia public schools assign to their concepts of exceptional students, regular class students, special educators and themselves personally were found to be ir the low to middle positive range, as measured by the three factors of meaning on a semantic differential. Thus, concerns raised by previous studies concerning the attitudes special educators hold toward exceptional students were not confirmed in the present study.

However, certain aspects of these affective meanings, such as the low activity scores special educators assign to their concepts of exceptional students, and the low potency scores for the concepts "special educator," and "me (myself)," require additional study. In addition, some of the relationships between these affective meanings and the predictor variables merit additional consideration.

Further studies should include an equal number of regular educators working within the same schools as the special educators, in

order that the affective meanings each group assigns to the concepts studied can be tested as predictors for those of the other group. For example, do the regular teachers' attitudes toward exceptional students reflect those of special educators in the same building? Do special educators' affective meanings for the concepts "special educator," and "me (myself)," correlate with the attitudes of regular teachers toward the concept "special educator?" The answers to these questions, in terms of identifying the degree and direction of possible correlations among affective meanings held by various members of a school staff could have important implications for the planning of mainstreaming and inservice programs within a school.

Future studies need to focus on the comparatively low activity factor scores assigned by these teachers to their concepts of learning disabled, emotionally disturbed, and educable mentally retarded students. Is this a biased way of perceiving all exceptional students, which shows when other categories of exceptionality are included in the study, or does it only apply to these three categories of exceptionality?

In addition, there is a need to explore the meaning of the comparatively low potency factor scores special educators serving the educable mentally retarded, learning disabled, and emotionally disturbed students assigned to their concepts of a "special educator," and "me (myself)." How do these special educators perceive

other educators in terms of potency factor scores? Do they rate regular classroom teachers, and building and central office administrators high or low on potency?

Additionally, in the tradition of the investigations of the relation between school climate and achievement, correlational studies of student achievement as predicted by the affective meanings their teachers hold for their concepts of these students are needed. Do teacher concepts of students, and the affective meaning of these concepts correlate with student achievement? If correlations are found, are they stronger for a particular factor of affective meaning than for other factors of meaning?

Finally, the relationship between some of the predictor variables and these affective meanings of concepts related to a special educator's profession needs further study. Experimental studies in which teachers of the emotionally disturbed from self-contained classes are provided with inservice information about the mentally retarded and learning disabled, or with direct experience with these two groups of students would help to determine whether the negative correlation found between self-contained placement and attitudes of teachers of the emotionally disturbed toward other categories of exceptionality is a simple result of lack of knowledge or experience, or whether some other factor is operating here.

The negative correlations found between the affective meanings of the concepts studied and the predictor variables of race and

size of school system need further study. What climate factors change as the size of a school system increases which might have a negative impact on the affective meanings special educators hold for these concepts related to their profession? Again, do special educators' affective meanings for the concepts of building administrator, other teachers, and central office administrator change as the size of the school system increases, and do these affective meanings provide any clues as to the changes in attitudes toward self and students? Why does the predictor variable race only correlate negatively with the affective meanings expressed by teachers of the educable mentally retarded? This might be a purely spurious finding, which could be clarified through further study. A direct comparison between groups of teachers of the learning disabled, educable mentally retarded and emotionally disturbed, balanced by race might provide additional information.

The present study was designed to explore the affective meanings Virginia public school special educators serving the educable mentally retarded, learning disabled, and emotionally disturbed hold for their concepts of exceptional students, regular class students, and themselves, and to identify factors correlated with these affective meanings. Future studies need to focus on expanding the semantic spaces studied here, and on clarifying the relationship between some of the predictors and the criterion variables.

APPENDICES

Appendix A

Initial Letter and Summary of Research Sent to Directors of Special Education

CHARTERED 1693
COLLEGE OF WILLIAM AND MARY
SCHOOL OF EDUCATION
WILLIAMSBURG, VIRGINIA 23185

October 27, 1982

Your school system was chosen as a part of a sample of public school systems in Virginia. I am therefore requesting your cooperation in conducting the research for my doctoral dissertation.

During the course of their careers, special educators come to attach complex affective meanings to their concepts of exceptional students, regular class students, special educators as a group, and themselves personally. As a doctoral condidate in Special Education and Administration at the College of William and Mary, I am investigating the relationships between these meanings and the age, sex, educational background and teaching experience of special educators.

With your assistance, I want to distribute a cover letter, a copy of the questionnaire, and a stamped return envelop to each of the teachers of the learning disabled, emotionally disturbed, and educable mentally retarded in your system. Thus, I want to send you the correct number of packets for distribution to these teachers.

The questionnaire is self-explanatory, will take each teacher approximately fifteen minutes to complete, and will be returned directly to me. Anonymity of participating individuals and of school systems surveyed will be protected, with all results reported in group terms.

I have enclosed a brief description of the research, should you wish more information, and will be pleased to provide you with a summary of the results when the project is completed.

I will telephone you during the week of November 1 to answer further questions, confirm the possibility of participation, and learn the number of research that I will need to supply to you. It will take about a week following my call for the packets to reach you.

Thank you for your interest and assistance in this matter.

Sincerely,

Patricia H. Harris

FACTORS RELATED TO SPECIAL EDUCATORS' CONCEPTS OF EXCEPTIONAL STUDENTS, REGULAR STUDENTS, AND THEMSELVES

Patricia H. Harris

The purpose of this study is to explore the affective meanings, as defined through use of a semantic differential instrument, that special educators in Virginia public schools assign to their concepts of certain exceptional students, regular class students, special educators and themselves personally, and to identify relationships between these affective meanings and the age, sex, educational background, and teaching experience of teachers.

The affective meanings special educators assign to these concepts have been inadequately studied. These meanings are important for two reasons: 1) they will have direct influence on the teacher's in-class behavior, and 2) they may be directly or indirectly communicated to regular educators receiving mainstreamed students, thereby affecting the quantity and quality of the mainstream experience of exceptional students.

The specific questions to be addressed are as follows:

1. What affective meanings do special educators serving the educable mentally retarded, learning disabled, and emotionally disturbed in Virginia public schools assign to their concepts of the educable mentally retarded, learning disabled, emotionally disturbed, and regular class students, and of special educators and themselves personally?
2. Do special educators hold more positive attitudes, as measured by the evaluative factor of a semantic differential, toward the category of exceptional students they teach than toward the other categories of exceptionality studied?
3. To what extent do the variables of age, sex, level of education, length of teaching experience, type of service delivery (itinerant, resource, or self-contained class), teaching at the elementary rather than secondary level, and size of employing school system correlate with these affective meanings?

An ex post facto survey design using a personal data questionnaire and a semantic differential device will be used in this study, with three groups of special education teachers: those serving the learning disabled, the educable mentally retarded, and the emotionally disturbed. The population studied consists of teachers holding Virginia certification and serving these three categories of exceptional students in Virginia public schools during the 1982-1983 school year. The sample will be selected by selecting ten percent of the public school systems in Virginia, and including all of the special educators serving the learning disabled, emotionally disturbed, and educable mentally retarded in these systems.

These teachers will be contacted through the directors of special education in the sample systems. A cover letter explaining the purpose of the research and requesting participation, a numbered copy of the response booklet, and a self-addressed, stamped envelop will be distributed to each of the subjects through the directors of special education.

Personal information will be cross-tabulated, using special education category taught as the columnar heading, to provide additional description of the sample. Individual identities will be protected, as will the names and locations of participating school systems, with all results reported in group form.

An analysis of variance will be used to test for differences in affective meaning of the six concepts, across the three major factors of meaning, with factor scores summed across special educators. An a priori contrast will be used to compare special educators' evaluative ratings of the area of exceptionality they teach with the other two categories of exceptionality studied.

A multiple regression analysis will be used to assess the degree of relationship between these affective meanings and the demographic variables, with the factor scores used successively as criterion variables and the demographic variables brought in by forward stepwise inclusion.

Appendix B

Cover Letter Sent to Directors of Special Education

With Research Packets for Distribution

P.O. Box 146
Seaford, Virginia 23696
November 12, 1982

Dear

Please find enclosed research packets for distribution to all of the teachers of the learning disabled, mentally retarded, and emotionally disturbed within school system, as we discussed over the telephone.

Thank you again for your assistance in this matter.

Upon completion of the research, I will be pleased to send you a summary of the results.

Sincerely,

Patricia H. Harris

Appendix C

Letter Enclosed in Research Packets

Distributed to Teachers

CHARTERED 1693
COLLEGE OF WILLIAM AND MARY
SCHOOL OF EDUCATION
WILLIAMSBURG, VIRGINIA 23185

P. O. Box 146
Seaford, Virginia 23696
November 15, 1982

Dear Fellow Special Educator:

During the course of our careers as special educators, we have come to attach increasingly complex meanings to certain concepts associated with our profession. As a doctoral student, I have chosen to investigate some of these meanings we assign to concepts, and the relationship between the meanings and factors such as level of education and type of teaching assignment.

I am asking your cooperation in participating in my study. Anonymity of all participants will be protected, and results will be reported only in categorical terms with no reference to particular individuals, schools, or school systems.

I hope that you will be able to give about 20 minutes of your time to complete the enclosed questionnaire and concept scales. I have enclosed a self-addressed, stamped envelop for your convenience in returning the booklet. I would appreciate your returning it by December 1, 1982.

Should you be interested in the results, I will be sending a copy of the summary to your school system upon completion of the project.

Thank you for your interest and cooperation.

Sincerely,

Patricia H. Harris

Patricia H. Harris

Appendix D

Cover Letter Sent With Packet of Follow-up Letters

P. O. Box 146
Seaford, Virginia 23696
December 7, 1982

I want to thank you for the assistance you have given me in my research, and ask one last kindness of you. I have enclosed sufficient copies of a letter for distribution to those teachers of the learning disabled, emotionally disturbed and educable mentally retarded who received the original research packets. This letter thanks the many teachers who kindly returned booklets very promptly, assures any who really wanted to participate that I am still interested in receiving their booklets, and provides my name and address to those who would like to request a summary of the results.

Again, I thank you. I hope to have the summary completed and mailed to you by mid-February.

Have a happy holiday.

Sincerely,

Patricia H. Harris

Patricia H. Harris

Appendix E

Follow-up Letter Distributed to Teachers

CHARTERED 1693
COLLEGE OF WILLIAM AND MARY
SCHOOL OF EDUCATION
WILLIAMSBURG, VIRGINIA 23185

December 10, 1982

Dear Fellow Special Educator:

I want to take this opportunity to thank all of you who completed the booklet for my doctoral research and returned it so promptly. I also want to assure any of you who have not yet had a chance to return the booklet but would like to do so that I am still interested in including additional data in my study. I apologize for the lack of personal address, but I have never requested names of any participants, and only know how many booklets I sent to each system participating, and how many of those have been returned.

For those of you who expressed interest in the outcome of this research, a summary of the results will be sent to your system at the end of the project, and at that time I will be happy to send copies to individuals who express interest.

Again, thank you for your interest and cooperation. Have a happy holiday.

Sincerely,

Patricia H Harris

Patricia H. Harris
P. O. Box 146
Seaford, Virginia 23696

Appendix F

Personal Information Questionnaire

PERSONAL INFORMATION

Please answer the following questions.

Your Age:_____ Sex: M_____ F_____

Racial or ethnic origin:_____

Educational Background: (Checked all degrees earned):

B.A._____ B.S._____;

M.A._____ M.S._____ M.Ed._____ M.A.T._____

C.A.S._____; Ph.D._____ Ed.D._____

Teaching Endorsements: Mental retardation_____

Learning disabilities_____

Emotionally disturbed_____

Other (specify) _____

Total years of teaching experience:_____

Current Teaching Assignment:

Category of exceptionality served:

Mentally retarded_____

Learning disabled_____

Emotionally disturbed_____

Other (specify)_____

Type of placement: Itinerant_____

Resource room_____ Self-contained_____

Level taught: Preschool _____ Middle school_____

Primary _____ Junior high _____

Elementary_____ High school _____

Number of years in present assignment:_____

School System (for use in differentiating size of system):

_____

Appendix G

Semantic Concept Measure Page

yielding	___:___:___:___:___:___:___	tenancious
lenient	___:___:___:___:___:___:___	severe
simple	___:___:___:___:___:___:___	complex
clean	___:___:___:___:___:___:___	dirty
bad	___:___:___:___:___:___:___	good
active	___:___:___:___:___:___:___	passive
quiet	___:___:___:___:___:___:___	noisy
nice	___:___:___:___:___:___:___	awful
powerful	___:___:___:___:___:___:___	powerless
ugly	___:___:___:___:___:___:___	beautiful
successful	___:___:___:___:___:___:___	unsuccessful
slow	___:___:___:___:___:___:___	fast

Appendix H

Matrix of Zero Order Correlations Among All Criterion and Predictor Variables

	Age	Sex (female)	Race (black)	Education	MR endorsement	LD endorsement	ED endorsement	Itinerant	Resource	Self-contained	Level	Years in current assignment	Total years experience	Size of school system
Age	1.000	-.106	.192	.427*	.109	-.027	-.179	-.017	.055	-.035	.004	.522*	.817*	.129
Sex		1.000	-.118	-.068	-.030	.063	-.009	-.073	.002	.045	-.077	-.185	-.059	-.125
Race			1.000	.072	.136	-.195*	.108	.023	-.090	.074	.112	.305*	.812*	.481*
Education				1.000	-.076	.251*	.032	.144	.072	-.098	-.007	.188*	.395*	.101
MR endorsement					1.000	-.333*	-.219*	.072	-.096	-.004	.162*	.074	.116	-.097
LD endorsement						1.000	-.060	.063	.299*	-.252*	-.287*	-.158*	-.014	.012
ED endorsement							1.000	.102	-.008	.016	.069	-.061	-.151	.033
Itinerant								1.000	-.089	-.428*	-.049	-.105	.029	-.026
Resource									1.000	-.754*	.057	-.116	-.026	-.075
Self-contained										1.000	-.060	.118	-.006	.048
Level											1.000	.025	.033	-.027
Years in current assignment												1.000	.571	.242*
Total years experience													1.000	.189*
Size														1.000

* p .05

Appendix I

Correlations Between Predictor Variables and Criterion Variables

Variables Predicting Evaluation Factor Scores

for Subsamples and the Total Group

Variable	Concept	Group	Correlation
Age	EMR student	LD teachers	.2764
	Regular student	EMR Teachers	.3562
	Special educator		
MR endorsement	Regular student	ED teacher	-.4104
LD endorsement	Regular student	ED teachers	.5275
	Me	ED teachers	.4188
ED endorsement	ED student	LD teachers	.2296
	Regular student	ED teachers	.2660
Itinerant service	LD student	ED teachers	.4627
	Special educator	ED teachers	.4315
Self-contained	Regular student	ED teachers	-.3005
	Special educator	ED teachers	.1211
Size	EMR student	Total group	-.1563
	Special educator	Total group	-.1815

Variables Predicting Potency Factor Scores

for Subsamples and the Total Group

Variable	Concept	Group	Correlation
Race (black)	LD student	EMR Teachers	-.4255
	LD student	Total group	-.2569
	ED student	EMR Teachers	-.4708
	Regular educator	EMR Teachers	-.4724
	Special educator	EMR Teachers	-.3007
	Me	EMR Teachers	-.4843
Ed endorsement	Special educator	LD Teacher	.2288
LD endorsement	EMR student	EMR Teachers	-.3195
Itinerant service	Regular student	EMR Teachers	-.3363
Resource service	LD student	ED Teachers	.4384
Self-contained service	ED student	EMR Teachers	.5633
	Special educator	EMR Teachers	.4970
Level	EMR student	EMR Teachers	.4150
Size	ED student	Total group	-.2185

Variables Predicting Activity Factor Scores

for Subsamples and the Total Group

Variable	Concept	Group	Correlation
Age	ED student	LD Teachers	.2859
Sex	LD student	EMR Teachers	.2655
	Regular student	LD Teachers	-.3827
MR endorsement	ED student	ED Teachers	-.4337
LD endorsement	ED student	Total group	-.1730
	EMR	Total group	-.2249
ED endorsement	Special educator	ED Teachers	.4317
Itinerant service	EMR student	EMR Teachers	.3711
	Regular student	ED Teachers	.4429
Resource service	Special student	LD Teachers	.2417
Self-contained service	LD student	EMR Teachers	-.2979
	ED student	LD Teachers	.2320
	EMR student	ED Teachers	-.3885
	Special educator	LD Teachers	.2885

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Abstract

FACTORS RELATED TO SPECIAL EDUCATOR CONCEPTS OF EXCEPTIONAL STUDENTS, REGULAR STUDENTS, AND THEMSELVES.

Patricia Hubbell Harris

The College of William and Mary in Virginia, May 1983

Chairman: Professor Louis P. Messier

The affective meanings, defined by a semantic differential, that special educators of the mentally retarded, learning disabled and emotionally disturbed in Virginia public schools assign to their concepts of certain exceptional students, regular students, special educators, and themselves personally were explored. In addition, relationships between these affective meanings and the age, race, sex, endorsements, and experience of teachers were examined.

Mailed survey data were returned by 152 special educators from a 10% stratified random sample of Virginia public school systems. Data were analyzed using a multivariate analysis and a series of multiple regressions, and the following conclusions were drawn:

1. Virginia special educators perceived each concept studied as distinctive, with affective meanings in the moderate positive range. The exceptions were the concepts "learning disabled student" and "regular class student" which did not differ in their affective meanings.

2. The concept "emotionally disturbed student" was significantly higher on potency and significantly lower on evaluation than all other concepts.

3. The concept "educable mentally retarded student" was significantly lower on activity and potency than other concepts.

4. The concepts "special educator" and "me (myself)" were significantly higher on evaluation and activity than other concepts, but comparatively low on potency.

5. Special educators perceived exceptional students as significantly lower on activity than the non-handicapped.

6. The predictor variables 1) age, 2) race, 3) type of service delivery, 4) special education endorsement, and 5) size of employing school system were significantly correlated with several of the affective meanings studied, while level of education, length of teaching experience, sex and level of service delivery were not found to be important predictors.