The semantic differential technique was used in a study involving 40 undergraduate trainees in the area of special education to analyze the concepts "disabled" and "handicapped" and the effects of structured knowledge or definition on the participants' perceptions of and attitudes toward the concepts. The Semantic differential consisted of bipolar adjectives scaled to measure the semantic space of the concepts "handicapped" and "disabled" in terms of three factors (evaluation, potency, and activity). Ss were divided into two groups: during assessment, group 1 was given predetermined and differing definitions of the concepts measured, while group 2 was administered only the assessment instrument. Among results were that there was a significant difference between the three factors of evaluation, potency, and activity, regardless of concept; that group 1 (definition of concepts) was slightly more positive in response than group 2 (no definition of concepts); and that the concept "handicapped" was received more favorably than the concept "disabled," although the difference was not significant. (Author/SB)
AN ANALYSIS OF PERCEPTIONS AND ATTITUDES TOWARD THE CONCEPTS "DISABLED" AND "HANDICAPPED" AND THE EFFECTS OF PRE-STRUCTURED DEFINITION UPON THE CONCEPTS.

BY

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Introduction

Many studies concerning attitudes toward groupings of exceptional, deviant or different individuals have been conducted over the past thirty years. In virtually all instances these studies have concerned attitudes toward specific exceptionalities or attitudes toward general conceptualizations of deviant groups; toward the deaf (Horowitz and Rees's, 1962), the orthopedically disabled (Billings, 1963). The mentally retarded, (Guskin, 1963), disabled persons in general, (Conine, 1969, Brooks and Bronsford, 1971) and toward handicapped persons in general (Lazar, Stodden and Sullivan, 1975). These studies contribute to the assumption that there are unique components associated with attitudes toward specific exceptionalities, yet generalized commonalities exist across specific attitudes.

The majority of studies assessing specific and generalized attitudes toward exceptionality have rarely concerned themselves with the nature and meaning of the concepts which are readily used in programming and assessment. Increasing awareness and concern about the effects of categorization and labeling in exceptional child programming (Mercer, 1969) and the desire for improved and responsive attitude assessment instruments has led to beginning efforts at analysis of conceptualizations and labels. Bates, Rothaus and Vineberg (1965), while using the Attitude Toward Disabled Persons (ATDP) scale, substituted different concepts for the primary term "disabled". It was assumed that use of the term "disabled" was not a valid representation of commonalities found in attitudes toward all specific disabilities. Through use of a direct questioning technique it was found that the most frequent definitions of the concept "disabled" referred to obvious physical impairments.
A modification of the ATDP by Lazar (1973) led to a substitution of the term "handicapped" for the term "disabled". As reported by Stodden, Graves and Lazar (1973), the rationale for this change was to give the instrument a more general meaning toward other exceptional groups than the physically disabled. A study of the relationship between the two concepts "handicapped" and "disabled" by Stodden, Graves, and Lazar (1973), reported a significant correlation of t.80, at the .01 level of significance, thus supporting the indication of a similarity between the two concepts. Both studies indicated the need for further indepth analysis of concepts used in programming and attitude research with exceptional groups.

The present study has concerned itself with an indepth analysis of the concepts "disabled" and "handicapped" and the effects of structured knowledge or definition upon the participant's perceptions and attitudes of the concepts. The major purpose of the study was to assess and make an indepth analysis of the perception and attitudes of pre-service special education trainees towards two concepts used in educational programming and attitude research. A secondary effort was to ascertain the effects of differing definitions upon the participant's perceptions and attitudes of the concepts. The following questions were proposed to guide the investigation:

1. What are the similarities and differences between the general concepts "disabled" and "handicapped", as measured by the semantic differential technique.

2. What are the similarities and differences between the concepts "disabled" and "handicapped" when analyzed through three semantic factors: (1) evaluation, (2) potency and (3) activity.

3. What are the effects of predetermined definition upon the similarities and difference between the concepts "disabled" and "handicapped" as analyzed through a general and a factor analysis.
Procedures

The study involved the use of a semantic differential technique to assess and analyze the attitude and perceptions of a random group of pre-service students training in the area of special education.

Subjects:

The assessment procedure involved a random sample of forty undergraduate students enrolled in intermediate course work in special education. The age, sex, and educational background of the subjects provided for adequate sample variation, yet the majority of the sample were young, female, and had previous exposure with exceptional groups, thus reflecting characteristics of the general population of undergraduate trainees in the area of special education.

Instrumentation

Since publication of The Measurement of Meaning (Osgood, Suci and Tannenbaum, 1957) the semantic differential technique has found an important place in educational research methodology. The semantic differential consists of several bipolar adjectives scaled to measure the semantic space of the desired concepts, "handicapped" and "disabled."

The development of the semantic differential initially involves the selection of concepts or stimuli to be rated through scales of bipolar adjectives. As discussed by Kerlinger (1967) the concepts selected for study must be relevant to the research problem at hand, must be familiar to and capable of eliciting varied responses from the population sampled and must cover the desired semantic space as defined by the selection of representative bipolar adjectives. The selection of relevant semantic scales concerned the measurement of three dominant factors toward the concepts "disabled" and "handicapped."
These three factors were evaluation, potency, and activity; each having five bipolar adjective scales representative of the semantic space measured. The distance between each end of the bipolar adjective scales was divided into seven equal intervals, each labeled with a number. An odd number of intervals was necessary to have a distinct middle position; seven intervals has proven to be best for response discrimination and judgement by the average adult (Osgood et al., 1975). The order and polar orientation of the scale was presented in the same manner for each subject, but care was taken to alternate polar direction to prevent formation of a position set.

Method:

The sample of forty-five students enrolled in intermediate course work in special education were randomly divided into two equal groups; the first group, during assessment, were given pre-determined and differing definitions of the concepts measured, while the second group were administered solely the assessment instrument. The instrument was administered by the senior author with uniform administrative procedures with both groups. Instructions were reviewed with both groups simultaneously and all questions were answered before assessment began. The total time for administration of the semantic differential was approximately twenty minutes.

Analysis:

The BMD 08V computer program was incorporated to conduct an analysis of variance of the three factors; evaluation, potency, and activity, which were nested within the concepts "disabled" and "handicapped", for both groups. Five scales within each factor were averaged to derive mean scores for each concept. This score indicated the perceived meaning in regard to a particular factor within a concept. Mean comparisons by groups and factors were conducted with other post hoc test to determine specific areas of significance.
Results:

The results of analysis yielded four interactive tests for possible significance: (1) between group I, with definition of the concepts, and group II, without definition, (2) between the concepts "disabled" and "handicapped" for total and separate groups, (3) between the factors of evaluation, potency and activity, (4) interactions between groups and factors. The significance level for testing difference was fixed at the .05 level.

Table 1 summarizes the results of an analysis of variance. Neither the main effects for groups nor its interaction with concepts was significant. Significant difference, at the .05 level, was found between the three factors of evaluation, potency and activity, irregardless of concept. To facilitate pinpointing the exact position of significance a post hoc test was conducted (Tuley's Honestly Significant Difference). Significant differences were found between the factor of evaluation and the two factors of potency and activity.

The significance of evaluation as a discriminative factor, as compared to activity and potency, is further indicated through a comparison of means for the three factors. Table 2 provides mean comparisons on factors between groups and within concepts. Results shown indicate that the factor of evaluation rated significantly more positive than the other two factors, in relation to the concept handicapped.

Visual comparison of group mean differences indicates that group I (definition of concepts) was slightly more positive in response than group II (no definition of concepts). Additional mean comparisons indicated that the concept "handicapped" was received more favorable than the concept "disabled", although this difference was not significant.

Discussion:

Results reported above indicated a lack of significant differences between the two general concepts used in educational programming and attitude
research. Also, there was a lack of statistical significance between the two groups (definition and no definition). In general agreement with the former lack of significance was the positive correlation between the two concepts found by Stodden, Graves, and Lazar (1973). One implication of Stodden, et. al. (1973) was that the term "handicapped" had a more general meaning than the term "disabled". This was reflected in the present study. The concept "handicapped" related the highest positive mean scores indicating greater positive acceptance as compared with the concept "disabled". A lack of statistically significant differences between groups (definition and no definition) indicates that when measuring factors connotatively, information of a denotative nature does not have a significant effect upon response.

The statistically significant differences between the evaluation factor and the factors of activity and potency, indicate evaluation to be the most discriminative of the three factors. It appeared to be less difficult for respondents to semantically discriminate on scales of evaluation, as compared to those of activity or potency. The poor response strength of the latter two factors may be attributed to lack of strong feelings on the part of the respondents, or lack of discriminative power of the factors, as related to the selection of concepts and subjects.

The results of this study raise several important issues for additional research in the areas of attitude structuring and assessment. Further need is indicated to determine differences between affective and cognitive domains and interaction between these two variables of measurement. Studies concerning the effect of contact and experience upon attitude domains will facilitate efforts toward construction of valid and reliable instruments. Significant results of this study suggest that future assessment of attitudes
should be concerned with attitudinal factors and domains of measurement. Additional research could be improved using larger sample sizes and with greater control and understanding of interactive variables of measurement.


Table 1.
Analysis of Variance for Groups, Concepts, and Factors

<table>
<thead>
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<th>Source</th>
<th>df</th>
<th>MS</th>
<th>F</th>
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</thead>
<tbody>
<tr>
<td>Between Group I (definition) and Group II (No Definition)</td>
<td>1</td>
<td>45.93</td>
<td>h.s.</td>
</tr>
<tr>
<td>Between Concepts (Disabled and Handicapped)</td>
<td>1</td>
<td>23.43</td>
<td>n.s.</td>
</tr>
<tr>
<td>Between factors (evaluating, potency and activity)</td>
<td>2</td>
<td>127.05</td>
<td>5.59*</td>
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*P < .05
Table 2.
Cell Mean Comparisons

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<th>Means</th>
<th>Concepts</th>
<th>Means</th>
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<tbody>
<tr>
<td>Definition</td>
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<td>Disabled</td>
<td>1.4</td>
</tr>
<tr>
<td>No Definition</td>
<td>1.3</td>
<td>Handicapped</td>
<td>2.0</td>
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Factors

<table>
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<tr>
<th>Groups and Concepts</th>
<th>Evaluation</th>
<th>Potency</th>
<th>Activity</th>
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</thead>
<tbody>
<tr>
<td>Total</td>
<td>2.6</td>
<td>1.4</td>
<td>1.0</td>
</tr>
<tr>
<td>Disabled (No Definition)</td>
<td>2.1</td>
<td>1.2</td>
<td>1.0</td>
</tr>
<tr>
<td>Disabled (Definition)</td>
<td>2.0</td>
<td>1.3</td>
<td>1.1</td>
</tr>
<tr>
<td>Handicapped (No Definition)</td>
<td>2.6</td>
<td>1.0</td>
<td>.1</td>
</tr>
<tr>
<td>Handicapped (Definition)</td>
<td>3.9</td>
<td>2.4</td>
<td>2.1</td>
</tr>
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