

TEACHER-STUDENT INTERPERSONAL  
RELATIONSHIPS AND STUDENT  
SELF-CONCEPTS

By

RITA MARGARET BAIRD  
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Bachelor of Science  
Central State College  
Edmond, Oklahoma  
1966

Master of Science  
Oklahoma State University  
Stillwater, Oklahoma  
1968

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College of the Oklahoma State University  
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SELF-CONCEPTS

Thesis Approved:

*Sue Hawkins*

Thesis Adviser

*James M. Lewis*

*Wm P. Ewens*

*Russell D. Bean*

*Rich Stinnett*

*D. Durham*

Dean of the Graduate College

788155

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## CHAPTER I

### THE PROBLEM

#### Introduction

Recent movements to establish guidance programs in elementary schools have created the need to define role expectations for the elementary school counselor. A 1966 report from the ACES-ASCA<sup>1</sup> joint committee on the elementary school counselor indicates that among the professional responsibilities for the counselor is the need to participate in "creating an environment conducive to learning and growth for all children" (Dinkmeyer, 1968.) The committee specifically notes that one means of implementing this responsibility is to help

members of the school staff to understand the effect of their behavior on children, the interaction between child and adults, and the importance of this interaction in the development of the child's self-concept and relationship with his peers (Dinkmeyer, 1968, p.101.)

If the counselor in the elementary school is to make positive contributions for the development of an environment conducive to learning and growth, he must recognize critical elements which operate to establish such an environment in a given classroom and know something of the

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<sup>1</sup>ACES-ASCA refers to Association for Counselor Education and Supervision-American School Counselor Association.

effects of these elements interacting with one another upon the learner. Withal and Lewis (1963) indicate that for too long consideration was given only to teacher characteristics, knowledge of child development, impersonal conditions such as timing and sequencing, and the amount the child learns as measured by achievement tests without looking at the actual behavior or interaction of the teacher and student in the classroom. They further suggest that for many years the concept of social interaction in the classroom was confined to the exchange of ideas between teacher and learner, whereas closer examination indicates the exchange of feelings is involved as well. The research herein reported deals with this exchange of feeling in the interpersonal relationships of teachers and students.

#### Definition of Terms

An examination of the following definitions as they are used in this study is prerequisite to an understanding of the statement of the problem.

Empathy is the degree to which one person is able to be sensitively aware of the feelings of another and can communicate this understanding. The Empathy subscale of the Relationship Inventory (Elementary Form) measures the student's perception of the teacher's understanding of his feelings.

Positive Regard is the degree to which one person experiences positive attitudes toward another person. The Regard subscale of the Relationship Inventory (Elementary Form)

measures the student's perception of the teacher's attitudes toward him. Positive feelings include respecting, liking, caring, and negative feelings are such things as disliking, despising, being impatient or feeling contempt.

Congruence is the degree to which an individual is consistent in what he says and what he implies by expression, gesture or tone of voice. The Congruence subscale of the Relationship Inventory (Elementary Form) measures the degree of consistency a student perceives in his teacher's behavior. The student is asked to respond to such items as "He pretends to like me more than he really does."

Unconditional Regard is the degree to which one individual accepts and values another person separate from any evaluation of that person's behavior or thoughts. The Unconditional Regard subscale of the Relationship Inventory (Elementary Form) measures the student's perceptions of the extent of variability in the teacher's responses to him. It will answer questions such as "Does the teacher's interest in me as a person change depending upon what I say, do or feel?"

Facilitating Relationship-For the purposes of this study facilitating/non-facilitating relationships is considered to exist on a continuum with facilitating relationships being characterized by relatively high degrees of empathy, positive regard, congruence and unconditional regard. A non-facilitating relationship is characterized by relatively low degrees of these same components.

In this study a high degree of any relationship characteristic is defined to be greater than or equal to .44 of a standard deviation above the mean, and a low degree is defined to be less than or equal to .44 of a standard deviation below the mean. Division points of .44 of a standard deviation above and below the mean were selected in order to give relatively even distribution of scores in each category based on the normal curve distribution.

Non-facilitating relationship- see facilitating relationship.

Teacher-student Interpersonal relationship is the specific interaction between a teacher and an individual child in his class. This includes both verbal and non-verbal responses. For the purposes of this study the teacher-student relationship is measured in terms of the perceptions of the student as recorded on the Relationship Inventory (Elementary Form).

Self-Concept is the characteristic manner in which the individual evaluates himself as a person as recorded in terms of his responses to given stimuli. Specifically self-concept is defined in this study in terms of the student's responses to the Ira Gordon How I See Myself Scale.

Perception is the personal interpretation or meaning which an individual places upon stimuli as he responds in light of his past experiences.

Stereotype accuracy refers to the individual's ability to predict the pooled responses of a given category of per-

sons (Gage, 1955b.) The specific application to this study is the teacher's ability to predict the pooled responses of his students on a self-concept measure as indicated by the agreement of the average of the responses he gives for six selected students and the average of the responses of all his students. High stereotype accuracy scores are those falling above the mean, and low stereotype accuracy scores are those falling below the mean.

Differential accuracy refers to the individual's ability to differentiate the self-concepts of individuals within a given category (Gage, 1955b.) The specific application to this study is the teacher's ability to predict the responses given by six selected students to the self-concept measure. High differential accuracy scores are those falling above the mean and low differential accuracy scores are those falling below the mean.

#### Statement of the Problem

This study was designed to determine in what way the facilitating or non-facilitating nature of the teacher-student interpersonal relationship as perceived by third and sixth graders is related to (1) the student's reported self-concept, (2) the teacher's differential accuracy in perceiving the self-concepts of selected students and (3) the teacher's stereotype accuracy in perceiving self-concepts of his students.

Specific questions to be answered follow. For each question separate analysis will be made for ability level, achievement level, sex, socioeconomic level and grade level differences.

1. What is the relationship between a student's perception of himself as measured by the self-concept scale and the student's perceptions of the teacher-student interpersonal relationship as measured on the following variables:

- a. Empathy
- b. Regard
- c. Congruence
- d. Unconditional regard
- e. Total relationship?

2. What is the relationship between a teacher's differential accuracy in perceiving student self-concepts and student perceptions of the teacher-student interpersonal relationship as measured on the following variables:

- a. Empathy
- b. Regard
- c. Congruence
- d. Unconditional regard
- e. Total relationship?

3. What is the relationship between a teacher's stereotype accuracy in perceiving the self-concepts of his students and the students' perceptions of the teacher-student interpersonal relationship as measured by average class responses on the following variables:

- a. Empathy
- b. Regard
- c. Congruence
- d. Unconditional regard
- e. Total relationship?

### Limitations

The consumer of this research is reminded that applications of the results of this study must be made in light of the following limitations.

1. The measurement of classroom psychological climate in this study is limited to the perceptions students have in regard to their interpersonal relationships with teachers.

2. The generalization of results obtained from this study is limited to third and sixth grade classrooms in Bartlesville, Oklahoma, public schools.

## CHAPTER II

### REVIEW OF RELATED LITERATURE

#### Introduction

It is the purpose of this chapter to describe the explanation of human behavior which guides this study, the criteria from which the teacher-student relationship was evaluated, the basis for selecting specific variables for examination of their possible association with facilitating teacher-student relationships and the need for controlling selected organismic variables.

#### A Perceptual Basis for Behavior

The perceptual view of behavior explains human behavior not in terms of objective facts, but rather in terms of each individual's personal perceptual field. Combs (1959) describes the perceptual field as the whole universe, including himself, as the individual experiences it at the instant of action.

Figure 1 (Combs, 1959) shows the interrelatedness of the three components of the perceptual field. The self-concept is the essence of the individual, that is those aspects which the individual accepts as himself in all places and at all times. The phenomenal self, which includes the self-



concept, is the organization of all the different ways an individual may see himself in varying situations. It gives stability and consistency to the individual and his behavior. The phenomenal environment includes those thing of which the individual is perceptually aware but which are not perceived as components of the individual. According to the perceptual view of behavior all activity of the individual is completely determined by his perceptual field.

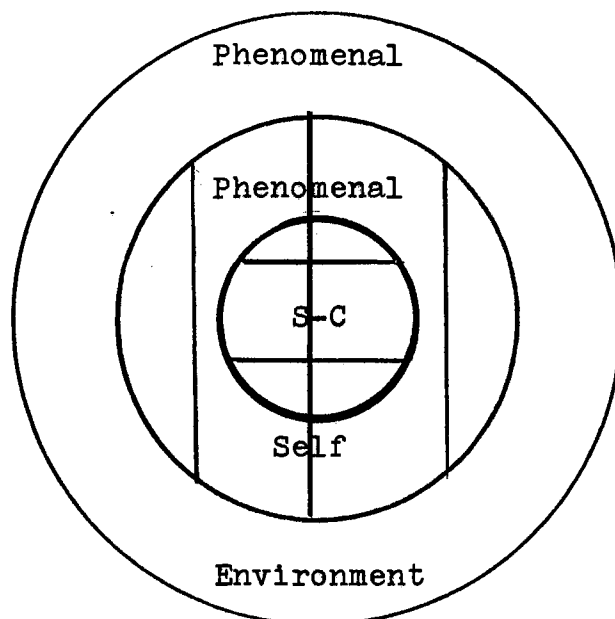


Figure 1. Perceptual Field<sup>2</sup>

<sup>2</sup>S-C refers to Self-Concept

It is important that the reader understand the perceptual theory of behavior as it is from this theory that the examination of teacher and student perceptions was suggested as being significant to an understanding of classroom interpersonal interaction.

In reference to student perceptions, Goldberg (1968) conducted a study based on the premise that underlying attitudinal factors influence pupil perceptions and may account for differential pupil reactions to teachers. Findings of this study indicate that compulsivity, as measured by the California F Scale, is strongly related to student perception of teacher behavior. High compulsive students perceived teachers as more nonauthoritarian, whereas low compulsives perceived teachers as more authoritarian. Due to the personal needs of these students they responded to the same teacher behavior in directly opposite manners. These findings support the need to study pupil perceptions in terms of individual children within the classroom.

Rosenthal (1968) worked with teacher expectations and pupil intellectual development. His research provides an excellent example of the importance of teacher perceptions in terms of the teacher's influence upon pupils. He found that with students in whom the teacher had been told to expect an intellectual 'blooming' that intelligence quotient gains were significantly greater than the gains of other children in the class. The difference in the potential of the two groups of children existed only in the minds of the teacher.

#### Teacher-Student Relationships

Basic to this study is the idea that a type of interpersonal relationship referred to as a facilitating rela-

tionship can be identified and is applicable to the teacher-student relationship. To identify the elements of a facilitating relationship, studies in client-therapist relationships are reviewed. Heine (1950) studied clients of psychoanalytic, client-centered and Adlerian therapists and found that, regardless of the orientation of the therapist, the clients in accounting for change in themselves indicated their perceptions of the relationship included feeling trust in the therapist, being understood by the therapist and feeling independence in making decisions. Fiedler (1953) found that expert therapists of differing orientations formed relationships with their clients which were more similar than the relationships formed with clients by experts and by neophytes with the same orientation. The elements common to the experts were an understanding of the client's meanings and feelings, sensitivity to the client's attitudes and a warm interest without over-involvement.

These investigations support Rogers' (1962) identification of the necessary conditions for therapeutic change as: congruence-the degree to which the therapist is genuine and without front, being open with feelings and attitudes; empathy-the accuracy with which the therapist can understand the client's private world; positive regard-the degree to which the therapist values the client as a person regardless of the client's behavior at a particular moment; unconditionality of regard-the therapist's acceptance of all feelings of the client, not accepting some feeling and rejecting

others. In addition Rogers indicates that the client must perceive the preceeding conditions in the relationship with the therapist before change will occur.

In the same vein, Truax and Carkhuff (1967) identify three characteristics which they feel cut across virtually all theories of psychotherapy and are common elements of a wide variety of approaches to psychotherapy. These characteristics are: accurate empathy-sensitivity to the feelings of others and the ability to communicate this understanding; nonpossessive warmth-valuing an individual as a person, separate from an evaluation of his behavior; and genuineness-responding in a way that expresses true feelings, that is not presenting a professional facade.

In addition to identifying the elements of a facilitating relationship, support is sought in regard to the application of these criteria to the teacher-student relationship. Truax and Tatum (1966) found that high degrees of warmth and empathy of preschool teachers as rated by observers were significantly related to positive changes in the child's preschool performance and social adjustment. Christensen (1960) found a significant relationship between the teacher's warmth and the student's achievement in vocabulary and arithmetic. Asby as reported by Truax (1967) found significantly greater gains for third graders in reading achievement for students receiving higher levels of empathy, warmth, and genuineness. In other research Mason (1969) compared perceptions of students in reference to the class-

room setting in which they felt they had learned the most with perceptions of students in reference to classrooms in which they had learned the least. Students rating classrooms in which they learned the most perceived themselves as receiving more regard as individuals and perceived the teacher as more genuinely understanding of feelings, more consistent and less variable in affective responses.

Silberman (1969) found that third grade teachers display to their students feelings of attachment, concern, indifference, and rejection despite their efforts to restrain their expression. Silberman states that

...students who receive them are aware of most behavioral expressions of their teacher's attitudes...These actions not only serve to communicate to students the regard in which they are held by a significant adult, but they also guide the perceptions of, and behavior toward, these students by their peers. (Silberman, 1969, p. 406.)

This statement adequately reflects the importance which others have placed on the teacher in setting the emotional tone of the classroom (Gump, 1964; MacDonald, 1959; Sechrest, 1962.)

It has been established that certain elements characterize a facilitating client-therapist relationship. Furthermore, evidence has been explored which strongly supports the application of these elements as criteria for an exploration of the nature of the interpersonal relationship between a teacher and student.

## Teacher Effectiveness

Teacher behavior has been observed, recorded and analyzed in many ways in an effort to identify the components of competent teaching (Withal, 1949; Flanders, 1960; Ryans, 1960; Amidon, 1967.) At this time we still are unable to adequately identify a model for competent teaching. Furthermore, we will not be able to approach such a position until a great deal more is known about classroom interaction (Biddle, 1964.)

Biddle (1964) suggests that the variables involved in studying teacher effectiveness may be conceptualized through Figure 2 which follows. The core of Biddle's model is the actual classroom unit. In addition to actual physical setting he directs attention to particular properties which characterize each teacher, such as skills, motives, etc.; the unique manifestations of these properties in each teacher's behavior and the immediate consequences in terms of the effects on pupils. Biddle's model suggests that any conclusions drawn from a study of the immediate classroom situation can be most appropriately used if consideration is given to formative experiences and the long-term consequences.

Extracting from Biddle's total conception, this particular study deals with variables from the immediate classroom situation. Particular concern was given to teacher knowledge of students self-concepts, students' perceptions of self and of the teacher-student relationship.

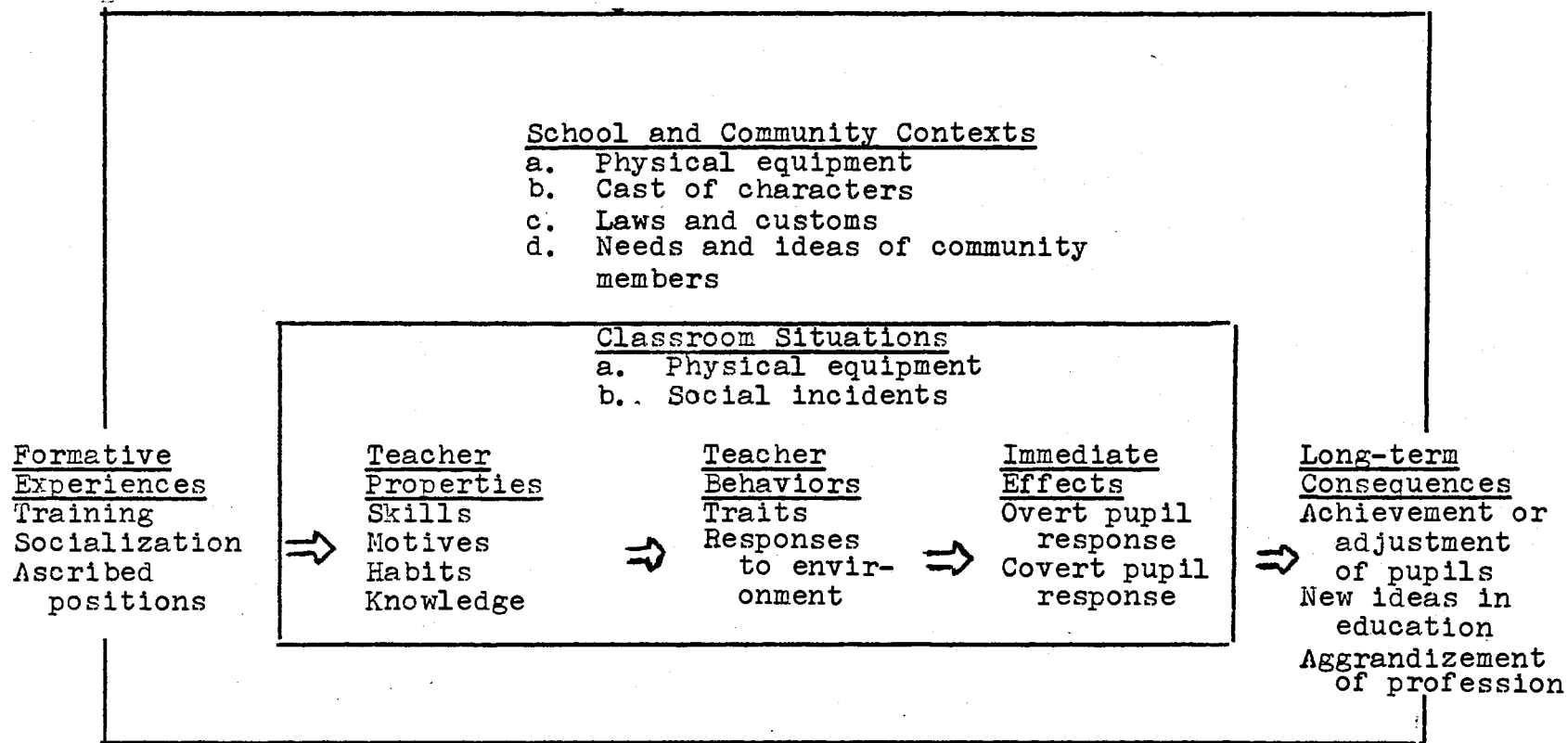


Figure 2. Seven Variable Model for Teacher Effectiveness  
(Biddle, 1964, p.7)

Previous studies investigating teacher characteristics have given some information in regard to the perceptions which teachers hold in relation to student characteristics. Perkins (1958) indicates that teachers with three years experience in in-service child study were significantly more accurate in perceiving student self-concepts and sixth grade teachers were better than fourth. Gage (1955a) found teachers to be unsuccessful in rating their students' emotional problems. He did find, however, that teachers rated by pupils as being high in effectiveness to promote emotional adjustment and in knowledge about pupils were also rated high in an overall favorability score. Gage found no difference with regard to age of teachers; however, he did find fifth and sixth grade teachers more accurate at picking social choices of their students than fourth grade teachers.

Emmerling (1961), investigating general perceptions of teachers, found that teachers whose indicated problems with children were positive, central, self-related and related to the future were rated more positively by students in terms of empathy, regard, congruence and unconditional regard than those teachers whose problems were negative, peripheral, less self-related and related to the present and past.

Looking again to the work of Combs (1963), we find further support for an investigation dealing with the perceptions of teachers. As a result of his investigations, Combs concludes that we cannot tell good teachers from bad ones in



terms of what they know they ought to do. The difference, however, seems to lie in the perceptions which they hold concerning the youngsters with whom they are working. If we could find the characteristic ways in which good helpers perceive, we would have a more stable and accurate description of the difference in good and bad teachers according to Combs.

### Student Self-Concepts

Through prior discussion of a perceptual explanation of behavior the foundation was laid for understanding the importance of a student's self-concept as he functions in the classroom. At this point it will be beneficial to look at some specific considerations which have been given to the self-concepts of students.

Binder (1965) found high school students' reported self-expectations and their self-concepts in terms of ability were significantly related to variances in grade point averages. Piers and Harris (1964) report significantly more positive self-concepts at third and tenth grade levels as compared to sixth grade. However, they also report significant ( $p < .01$ ) correlations of reported self-concepts and achievement test scores at both third and sixth grade levels. Miller (1963) reports that acceptance and satisfaction with self is significantly related to the student's achievement.

Another consideration is the possible relation of the self-concept to sociometric ratings from peers. Schmuck

(1965) has shown that pupils who are highly liked are more liking in their ratings of others, and those who feel others do not like them rate themselves less positively. Guardo (1969) also found significant relations between sociometric status and self-concept with the strongest relations occurring between negative sociometric rating and self-concept.

The association between the child's self-concept and his perception of the teacher-student relationship has received limited attention. Davidson (1960) found significant positive correlations with fourth, fifth and sixth graders between their self-perceptions and perceptions of the teacher's feelings toward them.

The relationships of a child's self-concept with academic performance and sociometric status lead one to expect that the child's perception of self will also be related to his perception of the teacher's feelings toward him. Davidson (1960) has confirmed this expectation. However, since the evidence supporting this conclusion is very limited there is justification for this study to seek further confirmation.

#### Additional Factors Relating to Students

It is desirable to examine various student characteristics which may be associated with the student's perception of the teacher-student relationship and his self perception. With fourth, fifth and sixth graders Davidson (1960) found differences in academic achievement, classroom behavior,

social class and sex of those students who rated the teacher's feelings negatively and those who rated the teacher's feelings positively. Thompson's study (1969) indicated that students rating teachers high in empathy, congruence and positive regard have higher socio-economic level, higher intelligence and higher achievement scores on tests and on teacher ratings of achievement. Thompson found no difference with respect to race. At the highschool level, Mason (1969) found no difference with respect to the sex of the student in their ratings of teacher empathy, regard, unconditional regard and congruence.

Analysis of the studies of Lewis (1965) with sixth and ninth graders and Mason (1969) with high school seniors indicates that the significant associations of student ratings of teachers with achievement for sixth and twelveth graders is not confirmed at the ninth grade level. The absence of extensive investigations at the elementary level leaves little basis for predicting differences which might exist when making separate analysis for age. An awareness of the changing needs and orientations of the elementary age child gives support to an investigation dealing with the two different age levels of third and sixth grades.

It is evident in the majority of cases previously studied that higher achievement, intelligence and socio-economic class characterize those students who have positive perceptions of their relationship with their teacher. The previous work does not, however, give an adequate basis

for making predictions concerning the relationship of student characteristics and student perceptions of teachers at the elementary level. Specifically there is no adequate basis for predicting differences in patterns at the third and sixth grade levels.

### Summary

Summarizing the theoretical and experimental background for this study leads one to the following conclusions: (1) One's behavior is determined by his perceptions; (2) A basic goal of elementary education is to develop an environment conducive to learning and growth in all children; (3) Conditions which allow the learner to feel good about himself and his behavior, and which lead the student to experience a facilitating relationship with his teacher contribute to an environment which is conducive to learning and growth; and (4) The teacher is an important contributor to the type of psychological climate present in a classroom.

### CHAPTER III

#### METHOD AND PROCEDURE

##### Design of the Study

Subjects for this study were the students and teachers of six randomly selected third grade and six randomly selected sixth grade classrooms of the Bartlesville, Oklahoma, public school system.

Student perceptions of the teacher-student interpersonal relationship were assessed through the responses given on the Relationship Inventory (Elementary Form.) Student self-concepts were reported from responses to the Ira Gordon How I See Myself Scale. Teacher differential and stereotype accuracy in perceiving student self-concepts were defined in terms of the agreement of the teacher's perceptions of students' self-concepts as recorded on the How I See Myself Scale and the students' responses to the same scale.

Provisions were made for examining the possible effects of selected organismic variables. An ability level in terms of high, middle or low for each subject was determined by his score on the Kuhlmann-Anderson test of general intelligence. A high, middle or low achievement level was assigned to each subject in light of his performance on the reading section of the Stanford Achievement Test Battery. High,

middle or low socio-economic status was assigned according to the father's occupation. When possible the above information was obtained from school records. For the purposes of statistical analysis separate tests for significance were run for each ability, achievement and socio-economic level. Also subjects were separated according to grade level and sex for statistical analysis.

### Sample Selection

In selecting the sample of classrooms to be used, all third grade teachers' names were placed on a slip of paper. The director of elementary education and the researcher together drew at random six names. At this time a seventh name was also drawn which was to serve as an alternate in case of prolonged illness or absenteeism of the teacher. An additional classroom separate from the actual research sample and alternate class was then selected to serve as subjects for the trial of the Relationship Inventory. The same procedure was used to obtain the six classrooms, the alternate class and trial class at the sixth grade level. Excellent cooperation was experienced with all teachers, making it unnecessary to use either of the alternate classrooms. A total of 276 students and 12 teachers composed the research sample. Table I describes the research sample.

TABLE I  
DESCRIPTION OF SAMPLE

Class	Grade	Boys	Girls
Trial	3	14	13
3-A	3	13	10
3-B	3	13	11
3-C	3	9	11
3-D	3	14	11
3-E	3	14	11
3-F	3	7	13
Trial	6	16	13
6-A	6	11	11
6-B	6	11	12
6-C	6	17	12
6-D	6	13	5
6-E	6	12	11
6-F	6	15	9
Total <sup>a</sup>		<u>149</u>	<u>127</u>

<sup>a</sup>Totals do not include trial classes.

Within each classroom a sample of six students was needed in order to gather information concerning teacher accuracy of perception. The number six was selected as the maximum number which a teacher would be able to complete during the time the researcher was with the class. The largest classroom in the total sample had twenty-nine students; the smallest had eighteen. Numbers from one to twenty-nine were placed on slips of paper, and six numbers randomly drawn. Since one of these numbers, 22, fell above eighteen a seventh number was drawn, 5, to be used in any class where a student with the number 22 was not possible. In each class all students were arranged alphabetically by last names, and those whose numbers were 22, 15, 18, 2, 14, 12 or 5 constituted the sample. An additional number, 17, was drawn to be used as an alternate in case of student absenteeism on the day of data collection.

#### Collection Procedures

The collection of data by the researcher was accomplished during the first eight days of November, 1970. In each classroom every student had a complete copy of the Relationship Inventory (Elementary Form) and the How I See Myself Scale. The students responded to each item as it was read aloud by the researcher. The students were told that the responses which they gave were to be analyzed for research purposes and that no other use would be made of the data. They were assured of confidential treatment of their



responses by the researcher. Along with his responses each student was asked to give his name, age, class and sex. As the researcher worked with the students on the Relationship Inventory and self-concept scale, each teacher individually completed the self-concept scale as he perceived each of the six randomly selected students from his class would respond.

Scores representing the students ability to learn were available from the Kuhlmann-Anderson test of general intelligence. These tests were administered by the school staff during the months of November and December, 1970. Critiques of the Kuhlmann-Anderson test as recorded in Buros (1965) indicate that it compares favorably with any other competitive instrument measuring general intelligence. Reading achievement scores were available on the Stanford Achievement Test for all sixth-grade classrooms except class 6-D. The reading section of the Stanford test was given by the researcher to all third grade classes and to class 6-D. This testing was done from two to four months following the time the other sixth grade classes had been tested. The reading sections of the Stanford-Achievement Test Battery provide information concerning word recognition and comprehension skills of the students. Buros (1965) indicates that the Stanford test ranks high among standardized achievement batteries which are designed for use at the elementary level. In addition to the above information fathers' occupations were obtained from the school records.

## Assessment of Interpersonal Relationship Variables

The Relationship Inventory was originally developed by Barrett-Lennard (1962) to measure five therapist response variables: level of regard, empathic understanding, congruence, unconditionality of regard, and willingness to be known. Items selected were validated by the expert judgments of five client-centered counselors. Using a sample of 42 clients, split-half reliabilities obtained from the Spearman-Brown formula ranged from .82 to .93.

Form OS-M-64 of the Inventory reduced the total items to sixty-four and dropped the "willingness to be known" scale. This form has been used to measure student's perceptions of teachers at senior high level and as a measure of the hypothesized conditions necessary for optimal development of the child in the family situation (Emmerling, 1961; Mason, 1969; Hollenbeck, 1961.)

A further application of the instrument came in Thompson's (1969) study with seventh and eighth graders using the Relationship Inventory (Revised Form.) This form of the instrument has a reduced readability level of 4.5 using the Lorge readability formula. Using a random sample of eighty-seven pupils from his total population of four hundred and fifty-two Thompson obtained split-half reliabilities ranging from .53 to .75.

For this study the researcher has selected items from the revised form to obtain a total of thirty-two items (eight items measure each of the four subscale variables) to

constitute the Relationship Inventory (Elementary Form) (See Appendix A.) Wording has further been modified to adapt the instrument for elementary school use.

The elementary form of the Relationship Inventory was administered to one third and one sixth grade class three weeks prior to the actual collection of the research data. The classrooms used for this trial were selected at the same time and through the same procedure as the research sample but were not included in the research sample. During the trial the administration followed the same procedure as was to be used for data collection purposes.

Spearman-Brown split-half reliability coefficients obtained from this trial appear in Table II. For purposes of this analysis the instrument was divided so that each half contained an equal number of positive and negative items from each subscale. In addition, from the experience of administering the trial, the researcher made a subjective judgment concerning certain words or phrases which appeared to be unknown or confusing to the subjects. As a result of this trial further wording changes were made before the instrument was used for actual data collection. After the research data was collected, split-half reliability coefficients were computed using random samples of fifty third grade subjects and fifty sixth grade subjects. Coefficients from the actual research sample also appear in Table II.

TABLE II  
RELATIONSHIP INVENTORY (ELEMENTARY FORM)  
 SPLIT-HALF RELIABILITY<sup>a</sup>

Scale	$\sum x^2$	$\sum y^2$	$\sum xy$	$r'$	$r$
Trial Sample - Third Grade					
Emp.	181	148	119	.74	.85
Reg.	227	104	106	.69	.82
Cong.	443	171	185	.70	.82
U. Reg.	206	256	125	.69	.82
Total	2838	583	795	.62	.76
Research Sample - Third Grade					
Emp.	219	93	91	.63	.77
Reg.	648	201	271	.75	.86
Cong.	387	259	133	.42	.59
U. Reg.	729	740	71	.10	.18
Total	2108	1756	1406	.73	.84
Trial Sample - Sixth Grade					
Emp.	178	244	166	.80	.89
Reg.	268	188	149	.66	.80
Cong.	225	152	173	.94	.97
U. Reg.	256	222	167	.70	.82
Total	1920	1665	1430	.80	.89
Research Sample - Sixth Grade					
Emp.	538	540	355	.66	.79
Reg.	1013	389	524	.84	.91
Cong.	616	419	239	.47	.64
U. Reg.	803	408	243	.42	.60
Total	11528	4732	4321	.59	.74

<sup>a</sup>Spearman-Brown Formula:  $r = \frac{2r'}{1+r'}$ ,  $r' = \frac{\sum xy}{\sqrt{(\sum x^2)(\sum y^2)}}$

The most striking difference in research sample and trial sample reliabilities occurs with third grade unconditional regard. Examination of the extremely low research sample reliability indicates that items 11 and 27 on this subscale were answered predominantly high (that is scoring 4 or 5) and items 3 and 7 were predominantly answered low (score of 1 or 2.) The students obviously did not interpret these items as referring to the same teacher characteristic. Perhaps the difference in the research sample and the trial sample can be best explained by indicating that with the trial group there were several words used in the scale which were unknown to these subjects, causing them to ask for clarification. With the research sample wording changes were made. However, in this case word recognition obviously did not necessarily assure comprehension. Because of the low reliability of the unconditional-regard subscale with the third grade group, the subscale has been discarded from the interpretation of results of this study.

For scoring purposes the inventory is divided according to the positive or negative connotation of the items (see Appendix B, scoring sheet, for categorization of items.) Responses for positive items were scored as follows: always true, 5; usually true, 4; sometimes true and sometimes false, 3; usually false, 2; and always false, 1. The system was reversed for negative items: always true, 1; usually true, 2; etc. Scores were recorded for each of the four subscales and for the total relationship.

### Assessment of Self-Concept

The measure of self-concept used in this study is the Ira Gordon How I See Myself Scale (See Appendix C for a list of items contained in the scale.) This scale has been designed for use as a self report measure of self-concept to be used beginning at the third-grade level. Gordon (1966) readily admits that all aspects of the self-concept are not measurable and that various techniques of measurement tap different segments of the self-concept. This idea is presented graphically in Figure III.

Gordon's scale is designed so that it can be subdivided to yield five cluster scores. However, for the purposes of this study only the total score has been utilized. The How I See Myself Scale is scored by reversing the values assigned to a given response, depending upon whether the item has a negative or positive connotation. Test-retest reliability scores for the scale range from .78 for third graders to .87 for eleventh graders.

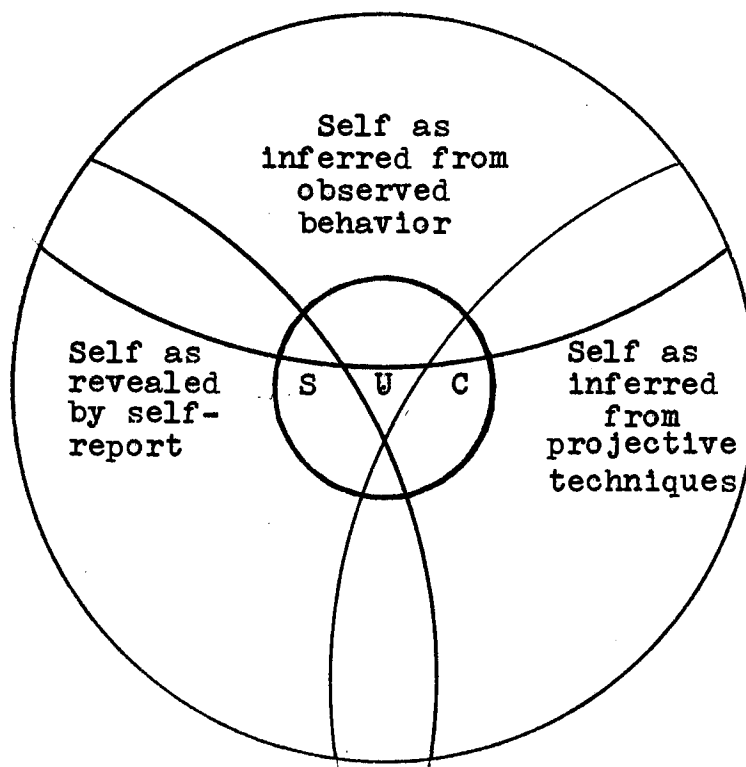


Figure 3. A tentative model depicting three facets of the self.<sup>a</sup>

<sup>a</sup>S-C is the Self Concept, the highly organized, central core of the self. U is the part of self unavailable to public study.

(Gordon, 1966, p. 53)

### Assessment of Teacher Accuracy

The rationale for defining two types of accuracy, stereotype and differential, comes from Gage's (1955b) discussion of problems in conceptualizing and measuring interpersonal perceptions. In an effort to delimit the definition of interpersonal perception from a global ability to understand all other persons, Gage has identified two forms of perceptual accuracy. Stereotype accuracy "refers to the individual's ability to predict the pooled responses of a given category of persons, whereas differential accuracy refers to his ability to differentiate among individuals within the category." (Gage, 1955b, p.417.) This study is concerned specifically with teacher accuracy in perceiving the self-concepts of students.

Differential accuracy scores for each teacher were obtained by summing the absolute differences between responses given by the teacher and each of the six randomly selected children. The lower the score, the higher the accuracy. For the purposes of obtaining a stereotype accuracy score, the responses which the teacher gives for the six selected students have been generalized to the entire class. The average response which the teacher gave on these six forms has been considered to be the teacher's generalized perception of her entire class. Stereotype accuracy scores were obtained by first finding the average rating on each item for the six scales completed by the teacher and the average rating on each item as completed by all students



in a particular classroom. The stereotype accuracy score is the sum of the absolute differences in the two averages for each item. Again the lower the score, the higher the accuracy.

### Categorization of Data

High and low categories for each subscale and the total scale score on the Relationship Inventory were determined by considering those scores which were greater than or equal to .44 of a standard deviation above the mean as high and those which were less than or equal to .44 of a standard deviation below the mean as low. Three categories were defined for self-concept scores, achievement scores and general intelligence or ability scores. Scores which were greater than or equal to .44 of a standard deviation above the mean fall in the high category, scores between .44 of a standard deviation above and below the mean were in the middle category, and scores less than or equal to .44 of a standard deviation below the mean constitute the low category. Divisions at .44 of a standard deviation above and below the mean were selected based on the normal curve distribution in order to produce relatively equal groups.

High stereotype and differential accuracy scores were defined as those scores falling above the mean. Low stereotype and differential accuracy scores were those scores falling below the mean.

Three socioeconomic levels were defined based on the father's occupation using a revised form of Row's classification of occupations (Mosier, 1956.) As used in this study level 1 or high socioeconomic level includes occupations classed as professional and managerial; level 2 or middle includes semi-professional-managerial and skilled occupations and level 3 or low involves occupations classified as semi-skilled and unskilled. Occupations were analyzed based on a classification table from Mosier (1956.)

#### Discussion of Statistical Method

In selecting a statistical technique appropriate to the data collected in this study, major concern was centered around the Relationship Inventory scores. This instrument was selected for use in order to differentiate from the research sample two groups: (1) those students who perceive their relationship with their teacher as facilitating, that is they perceive in his behavior relatively high degrees of empathy, regard, congruence and/or unconditional regard; and (2) those students who perceive their relationship with their teacher as non-facilitating, that is they rate the teacher as possessing relatively low degrees of the four relationship variables. It was felt that by omitting the section of students whose scores on the relationship inventory fell into the middle category (between .44 of a standard deviation above and below the mean) that one could be more certain that differences in high and low scores

actually represent differences in student perceptions.

Thus by reducing the numerical scores on the relationship inventory to category scores, the scores used for analysis must be considered as discrete data. Although the scores on the other instruments used could be considered to be continuous data, they too have been reduced to category scores in order that comparisons might be made with the relationship inventory scores.

The statistical technique of chi square readily lends itself as a test for significant differences among distributions of discrete data. The chi square test was applied using the following formula (Downie, 1965, p. 162):

$$\chi^2 = \sum \frac{(O - E)^2}{E},$$

where O represents the observed cell frequency and E represents the expected cell frequency.

In each case the obtained chi square was interpreted by comparing it with a table of chi square distributions (Downie, 1965, Table IV, p. 299.) Significant relationships were said to exist when the probability of the occurrence of a given chi square is less than .05<sup>2</sup>.

In some cases the requirement for chi square of no more than twenty percent of the cells having an expected fre-

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<sup>2</sup>The level of significance represents the amount of difference beyond that of chance or random sampling. Significance at the .05 level indicates that in only five times of a hundred would the difference in the distribution of the two groups be due to chance factors alone. The criteria for the selection of the .05 level of significance are arbitrary. However, the .05 level is conventionally accepted in educational and psychological research (Guilford, 1950.)

quency less than five and none having an expected frequency less than one were not met. In these cases Fisher's Exact Probability test was used. Fisher's test is applicable for use with discrete data when sample sizes are small,  $n < 20$  (Siegel, 1956.) In instances where Fisher's test was used, the contingency tables were checked for significance using a table of critical values (Siegel, 1956, Table I, p. 256.)

## CHAPTER IV

### ANALYSIS AND DISCUSSION OF DATA

#### Introduction

The format for this chapter will provide for a presentation of all scores obtained in the study (Table VIII, Appendix D) including a description of all categorization into high, middle or low score groupings, and discussions of the analysis needed to answer questions number one, two, and three in that order.

#### Presentation of Scores

After each scale had been scored, a tabular arrangement (Table VIII, Appendix D) was prepared indicating each student's number; class designation; numerical and category scores for empathy, regard, congruence, unconditional regard, total relationship, self-concept, achievement and ability; and a ranking indicating socio-economic level. Table IX, Appendix E, presents the numerical divisions used in assigning a category to each score.

It should be noted that for every analysis the only students included were those whose empathy, regard, congruence or total relationship scores fell into either the high or low category. This distinction was made in line

with the operational definition of facilitating/non-facilitating interpersonal relationships. As was noted previously, the unconditional-regard subscale was eliminated from the study due to the low reliability with third-grade subjects.

#### Comparison of Self-Concept Scores with Relationship Scores

The purpose of this section is to answer question number one: What is the relationship between students' perceptions of self as measured on the self-concept scale and the students' perceptions of the teacher-student interpersonal relationship as measured on the following variables: a. Empathy, b. Regard, c. Congruence and d. Total relationship score?

A tabulation of high, middle and low self-concept scores in terms of their association with high and low relationship scores yields the contingency array found in Table III. Separate tabulations are given for each of the following: total sample; girls; boys; third graders; sixth graders; high, middle and low ability levels; high, middle and low achievement levels; and high, middle and low socioeconomic levels.

Immediately following Table III is a summary, Table IV, of the comparisons of self-concept scores with relationship scores in terms of the obtained chi square values. Optimum use of Table III occurs when considered in conjunction with Table IV.

TABLE III  
CONTINGENCY ARRAYS FOR RELATIONSHIP  
VARIABLES AND HIGH, MIDDLE  
AND LOW SELF-CONCEPTS

Group	S-C	<u>Empathy</u>		<u>Regard</u>		<u>Cong</u>		<u>Total</u>	
		H	L	H	L	H	L	H	L
Total Sample	H	56	9	53	12	49	16	50	9
	M	62	40	51	33	41	40	48	27
	L	19	38	14	38	12	40	11	38
Third Grade	H	31	4	34	4	32	9	31	2
	M	38	12	37	7	27	16	35	7
	L	10	38	9	7	6	7	4	5
Sixth Grade	H	20	5	19	8	17	7	19	7
	M	20	28	1	26	14	24	13	20
	L	9	31	5	31	6	33	7	33
Boys	H	20	9	30	8	19	10	16	7
	M	28	25	27	20	23	25	25	18
	L	10	19	9	20	7	22	6	20
Girls	H	31	0	33	3	30	6	34	2
	M	30	10	24	13	18	15	23	9
	L	9	19	5	18	5	18	5	18
High Abil	H	18	3	28	3	15	5	19	2
	M	24	15	25	12	16	15	18	11
	L	3	17	4	9	3	13	3	14
Mid Abil	H	21	5	15	6	19	3	22	3
	M	20	15	12	10	15	14	9	9
	L	4	11	6	9	5	9	6	9
Low Abil	H	12	2	15	3	12	3	13	4
	M	15	8	12	8	11	7	11	8
	L	9	10	3	14	2	15	2	12
High Ach	H	17	1	18	3	14	4	16	2
	M	19	13	16	17	12	12	13	7
	L	3	18	3	14	2	14	3	15
Mid Ach	H	18	3	14	4	14	3	17	1
	M	17	11	13	10	8	12	10	6
	L	5	12	6	9	7	11	4	10

TABLE III (continued)

Group	S-C	<u>Empathy</u>		<u>Regard</u>		<u>Cong</u>		<u>Total</u>	
		H	L	H	L	H	L	H	L
Low Ach	H	14	3	15	4	6	8	14	4
	M	20	13	18	12	18	13	17	11
	L	8	8	4	15	12	14	2	10
High SEL	H	18	2	19	3	21	3	20	1
	M	20	14	17	12	15	16	19	10
	L	8	15	7	12	9	14	5	13
Mid SEL	H	28	7	29	8	25	9	23	7
	M	31	18	25	14	13	18	22	11
	L	6	15	5	16	4	14	3	14
Low SEL	H	4	0	4	0	3	1	5	0
	M	7	8	8	13	8	6		
	L	8	9	4	11	4	11	3	4



TABLE IV  
SUMMARY OF CHI SQUARE VALUES REPRESENTING  
COMPARISON OF SELF-CONCEPT SCORES  
WITH RELATIONSHIP SCORES

Grouping	Empathy	Regard	Congruence	Total Scale
All Students	35.59 <sup>c</sup>	37.90 <sup>c</sup>	36.51 <sup>c</sup>	43.71 <sup>c</sup>
Third Grade	5.65	8.30	6.40	8.06
Sixth Grade	19.78 <sup>c</sup>	19.38 <sup>c</sup>	18.51 <sup>c</sup>	21.06 <sup>c</sup>
Boys	6.92	10.74 <sup>a</sup>	10.31 <sup>a</sup>	11.75 <sup>a</sup>
Girls	34.33 <sup>c</sup>	31.21 <sup>c</sup>	20.70 <sup>c</sup>	35.60 <sup>c</sup>
High Ability	20.34 <sup>c</sup>	14.90 <sup>b</sup>	11.25 <sup>a</sup>	19.31 <sup>c</sup>
Middle Abil.	12.74 <sup>a</sup>	4.44	9.96 <sup>a</sup>	12.70 <sup>a</sup>
Low Ability	4.84	10.33 <sup>a</sup>	15.50 <sup>b</sup>	11.14 <sup>a</sup>
High Ach.	20.90 <sup>c</sup>	17.68 <sup>b</sup>	14.56 <sup>b</sup>	20.70 <sup>c</sup>
Middle Ach.	11.12 <sup>a</sup>	4.68	8.61	14.03 <sup>b</sup>
Low Ach.	3.52	13.41 <sup>a</sup>	12.18 <sup>a</sup>	12.32 <sup>a</sup>
High SEL	11.32 <sup>a</sup>	10.19 <sup>a</sup>	8.01	20.18 <sup>c</sup>
Middle SEL	14.39 <sup>b</sup>	17.17 <sup>b</sup>	14.12 <sup>b</sup>	15.88 <sup>b</sup>
Low SEL	4.70	5.11	4.58	d

<sup>a</sup><sub>p</sub> < .05

<sup>b</sup><sub>p</sub> < .01

<sup>c</sup><sub>p</sub> < .001

<sup>d</sup>Using Fisher's exact probability  $p < .01$ .

Analysis of Tables III and IV reveals the following findings:

1. When all students are considered together, reported self-concept is significantly related ( $p < .001$ ) to students' perceptions of the teacher-student relationship.

2. Student self-concepts are significantly related ( $p < .001$ ) to perceptions of teacher-student relationships for sixth graders but not for third.

3. Separate analysis for boys and girls reveal significant associations for both boys and girls (except for empathy where the association for boys fails to reach significance.) The associations for girls reach significance ( $p < .001$ ) at a higher level than for boys ( $p < .05$ .)

4. In only two cases do any of the ability levels fail to yield significant relationships. These cases are low ability on the empathy scale and middle ability on the regard scale. A trend does exist for the relationships with high ability students to reach significance at a higher level than with middle-and low-ability groups.

5. The pattern of significant relationships for achievement levels is virtually the same as for ability levels. Cases which fail to reach significance at  $p < .05$  are the low achievement group on the empathy scale and the middle achievement group on the regard and congruence scales. A trend also exists for high achievement level students to have relationships significant at a higher level of confidence than middle or low groups.

6. High socio-economic level students have significant relationships on the empathy scale ( $p < .05$ ), regard scale ( $p < .05$ ) and total scale ( $p < .001$ ). Middle socio-economic level students reach significance ( $p .01$ ) on all scales. Associations for low socio-economic level students fail to reach significance on all scales except the total scale where  $p < .01$ .

#### Analysis of Differential Accuracy and Relationship Variables

The following discussion will center on answering question number two: What is the relationship between a teacher's differential accuracy in perceiving student self-concepts and the perceptions of the students of their interpersonal relationship with their teacher as measured on the following variables: a. Empathy, b. Regard, c. Congruence and d. Total relationship score? It should be remembered that differential accuracy is defined as the teacher's ability to predict the responses given by six randomly selected students to the self-concept scale.

Contingency arrays for the purpose of statistical analysis of question two appear in Tables V and VI. Table V includes all groupings in which requirements for chi square could be met. Contained in Table V are the actual frequencies of scores and the computed chi square values. Table VI presents the actual frequencies from which significance was determined by applying Fisher's Exact Proba-

bility Test. Comparison with a table of critical values (Siegel, 1956) were made on all arrays to determine significance when using the Fisher Test.

TABLE V  
CHI SQUARE CONTINGENCY ARRAYS COMPARING RELATIONSHIP  
VARIABLES WITH HIGH AND LOW TEACHER  
DIFFERENTIAL ACCURACY

Group	DA	<u>Empathy</u>		<u>Regard</u>		<u>Cong</u>		<u>Total</u>	
		H	L	H	L	H	L	H	L
Total	H	16	10	21	12	17	11	18	9
Sample	L	17	10	15	9	12	10	12	9
Third	H	7	0	9	1	8	0	9	0
Grade	L	13	4	13	3	9	5	9	4
Sixth	H	9	10	12	11	9	6	9	7
Grade	L	4	6	2	6	8	4	5	5
Boys	H	9	3	9	5	9	5	9	3
	L	4	6	8	4	4	6	3	5
Girls	H	7	7	12	7	8	6	9	6
	L	13	4	7	5	8	4	8	4
Mid	H	12	4	12	6	8	6	12	4
SEL	L	8	3	6	5	6	6	6	4

( $\chi^2$  values based on df = 1)

Total	2.0848	.0314	.0300	.1411
Sample	NS	NS	NS	NS
Third	.0229	.0018	1.7842	1.6315
Grade	NS	NS	NS	NS
Sixth	.0447	.8426	.0020	.0087
Grade	NS	NS	NS	NS
Boys	.1673	.0819	.5802	1.4670
	NS	NS	NS	NS
Girls	2.4162	.0121	.0087	.0020
	NS	NS	NS	NS
Mid	.1438	.4267	.0009	.1365
SEL	NS	NS	NS	NS

TABLE VI  
FISHER<sup>a</sup> CONTINGENCY ARRAYS COMPARING RELATIONSHIP  
VARIABLES WITH HIGH AND LOW TEACHER  
DIFFERENTIAL ACCURACY

Group	DA	<u>Empathy</u>		<u>Regard</u>		<u>Cong</u>		<u>Total</u>	
		H	L	H	L	H	L	H	L
High	H	8	3	8	3	6	2	7	2
Abil	L	4	4	4	3	3	5	4	4
Mid	H	5	3	5	6	5	4	4	3
Abil	L	5	2	5	1	6	1	5	1
Low	H	3	4	3	3	2	4	3	3
Abil	L	7	4	5	6	3	5	3	4
High	H	6	2	7	3	6	2	8	2
Ach	L	4	3	3	2	1	5	1	2
Mid	H	3	2	2	4	2	2	3	2
Ach	L	5	2	3	2	4	1	4	1
Low	H	5	5	4	4	4	6	6	4
Ach	L	6	3	9	3	6	5	6	4
High	H	3	5	5	5	4	3	3	3
SEL	L	4	4	5	2	4	3	4	2
Low	H	1	1	0	2	2	2	0	2
SEL	L	4	3	4	4	2	4	3	4

<sup>a</sup>Comparison of all arrays with a table of critical values for the Fisher Exact Probability Test yields no significant relationships at the .05 level.

Inspection of Tables V and VI results in an inability to find any significant association at any place in the comparisons. It appears that a teacher's ability to know in detail how a given student feels about himself is not related to the quality of the teacher-student interpersonal relationship as perceived by the student.

#### Analysis of Stereotype Accuracy and Relationship Variables

Attention is directed to considerations necessary to answer question number three: What is the relationship between a teacher's stereotype accuracy in perceiving student self-concepts and the students' perceptions of the teacher-student interpersonal relationship as measured by average class responses on the following variables: a. Empathy, b. Regard, c. Congruence and d. Total relationship score? Stereotype accuracy is defined as the teacher's ability to predict the pooled responses of his students on a self-concept measure as indicated by the agreement of the average of the responses he gives for six selected students and the average of the responses of all his students.

Table X, Appendix F, gives full information regarding the average scores within each classroom for all groupings required by this study. Table VII presents the actual frequency of scores from which a statistical analysis was made using Fisher's Exact Probability Test (Siegel, 1956).

TABLE VII  
CONTINGENCY ARRAYS COMPARING<sup>a</sup> RELATIONSHIP  
VARIABLES WITH HIGH AND LOW TEACHER  
STEREOTYPE ACCURACY

Group	SA	<u>Empathy</u>		<u>Regard</u>		<u>Cong</u>		<u>Total</u>	
		H	L	H	L	H	L	H	L
Total	H	2	5	1	6	2	7	2	5
Sample	L	5	1	3	1	3	1	4	0
Third	H	1	2	1	4	1	3	1	2
Grade	L	3	0	0	0	2	0	2	0
Sixth	H	1	3	0	2	1	4	1	3
Grade	L	2	1	3	1	1	1	2	0
Boys	H	3	2	1	2	2	4	2	2
	L	2	1	2	1	2	1	2	1
Girls	H	2	3	1	4	1	2	2	2
	L	4	0	3	0	1	0	3	0
High	H	2	4	2	3	2	3	2	4
Abil	L	5	0	5	0	5	0	5	0
Mid	H	3	2	1	1	3	3	3	1
Abil	L	4	2	2	0	1	1	2	0
Low	H	1	3	1	3	0	3	1	3
Abil	L	3	2	3	1	3	2	2	1
High	H	3	3	1	3	1	2	2	3
Ach	L	3	0	4	0	2	0	4	0
Mid	H	1	2	2	4	1	3	2	3
Ach	L	3	1	3	0	3	0	3	0
Low	H	1	3	0	4	1	3	0	3
Ach	L	3	1	3	1	3	1	2	1
High	H	2	2	1	4	0	4*	1	3
SEL	L	4	0	3	0	4	0	3	0
Mid	H	2	3	2	3	1	3	2	3
SEL	L	4	1	3	2	4	1	3	0



TABLE VII (Continued)

Group	SA	<u>Empathy</u>		<u>Regard</u>		<u>Cong</u>		<u>Total</u>	
		H	L	H	L	H	L	H	L
Low	H	1	1	0	2	2	2	0	2
SEL	L	2	0	1	2	1	3	1	1

<sup>a</sup>All statistical comparisons made using Fisher's Exact Probability Test; only one significant relationship found, demoted \*.

\*p < .05.

Results using Fisher's test on all arrays comparing stereotype accuracy with relationship scores fail to reveal any significant trends. Indeed only one significant association ( $p < .05$ ) was found, it being in the high socio-economic group for the subscale congruence. However, in this one isolated case low-stereotype-accuracy scores were associated with high-congruence scores and high accuracy scores with low-congruence scores.

### Discussion of Results

Results of the comparison of student reported self-concept and the nature of the teacher-student interpersonal relationship as perceived by the student, when all students are taken as a group, indicate the existence of a highly significant ( $p < .001$ ) relationship. All other analysis related to question one were made in an effort to discover any differences in various subgroups of the population sample which might exist. The striking difference between third (no significant relationships) and sixth (all relationships,  $p < .001$ ) indicates the need for separate analysis and reporting for these groups. The general trend favoring higher ability and/or achievement groups should be further investigated through reevaluation in light of differences in third and sixth grade Relationship Inventory scores.

Considering the differentiation in socio-economic level it must be pointed out that a definite imbalance in the groupings exists. Most of the students in this study were

ranked as high or middle socio-economic level with classifications of high being given to 101 students, 127 classified as middle and only 48 as low. The findings of this study indicate significant relationships in almost all cases for the high and middle socioeconomic level students. However, examination of the contingency tables indicates that for the low socio-economic groups, even though the relationships were not significant, the trend was for high self-concept scores to be related to high relationship scores and low self-concept scores with low relationship scores.

Summarizing all analyses dealing with question one, one finds (1) that students who perceive their relationships with their teachers as facilitating also hold themselves in high regard, and (2) when looking at all differentiations of student groups (third or sixth grades, girls or boys, ability groups, achievement groups, and socio-economic groups) the most consistent difference occurs between third and sixth graders.

The portions of this study dealing with teacher perceptions of student self-concepts indicates that teacher accuracy of perception for both individual students and the class as a whole is not related to the child's perception of his relationship with the teacher. Inspection of Table VIII, Appendix D, indicates that every teacher had some low and some high differential accuracy scores. It is also worth noting that approximately two-thirds of the low differential accuracy scores belong to third grade teachers,

whereas two-thirds of the high scores belong to sixth grade teachers.

A limiting factor in the analysis in terms of stereotype accuracy is the very small number of cases. However, the trend, if any appears to be a pairing of high accuracy with low relationship and low accuracy with high relationship scores. Looking at Table I, Appendix F, one becomes aware that, as was the case for differential accuracy, the majority of the high stereotype accuracy scores are with sixth grade teachers and the majority of the low stereotype accuracy scores are for third grade teachers.

## CHAPTER V

### CONCLUSIONS AND IMPLICATIONS

#### Overview of the Study

This study is based on an acceptance of a perceptual basis as an explanation of human behavior. The major concern of the study is the student's perception of his interpersonal relationship with his teacher. The study was designed to investigate individual teacher-student relationships within the classroom. A basis was established from counseling theory for a valid application of the interpersonal relationship components of empathy, regard and congruence to the teacher-student relationship.

Three questions were asked concerning the student's perceptions of his relationship with his teacher: (1) Are these perceptions related to the student's self-concept? (2) Are these perceptions related to the teacher's accuracy in perceiving the individual student's self-concept? (3) Are these perceptions related to the teacher's accuracy in perceiving the average of the self-concepts of his students?

Subjects for this study were the students and teachers of six randomly selected third grade classrooms and six

randomly selected sixth grade classrooms of the Bartlesville, Oklahoma, public school system.

Student perceptions of the teacher-student interpersonal relationship were assessed through the responses given on the Relationship Inventory (Elementary Form.) Student self-concepts were reported from responses to the Ira Gordon How I See Myself Scale. Teacher differential and stereotype accuracy in perceiving student self-concepts were defined in terms of the agreement of the teacher's perceptions of students' self-concepts as recorded on the How I See Myself Scale and the students' responses to the same scale.

Provisions were made for examining the possible effects of selected organismic variable. An ability level in terms of high, middle or low for each subject was determined by his score on the Kuhlmann-Anderson test of general intelligence. A high, middle or low achievement level was assigned to each subject in light of his performance on the reading section of the Stanford Achievement Test Battery. High, middle or low socio-economic status was assigned according to the father's occupation. When possible the above information was obtained from school records. For purposes of statistical analysis separate tests for significance were run for each ability, achievement and socio-economic level. Also subjects were separated according to grade level and sex for statistical analysis.

### Summary of Major Findings

Results of computation of split-half reliability coefficients for the Relationship Inventory (~~Elementary~~ Form) indicate acceptable levels (.59 to .91) for all portions of the scale except for unconditional regard with third graders (.18). It appears that the items composing this subscale are too abstract for consistent interpretation by third graders. Therefore the results of this study deal with empathy, regard, congruence and total relationship scales.

1. When all students are taken as a total group, significant relationships ( $p < .001$ ) are found between self-concept scores and empathy, regard, congruence and total relationship scores. Comparison between third and sixth grades indicates significant relationships exist for all subscales and total scale for the sixth grade ( $p < .001$ ) but no significant relationships exist for third graders. Dealing with the same comparisons of self-concept and relationship variables, general trends indicate girls have more significant associations than boys, high ability students have more than middle or low, high achievers compiled more than middle or low and middle socio-economic level students tabulated more significant associations than high or low.

2. Comparisons dealing with teacher differential accuracy in perceiving self-concepts and relationship variables fail to reveal any significant results. Differ-

ential accuracy of the teacher has no relationship to student perception of the teacher-student relationship.

3. The study of teacher stereotype accuracy in perceiving student self-concepts and relationship variables yields only one significant relationship ( $p < .05$ .) For the subscale of congruence with the high socio-economic group low stereotype accuracy scores were associated with high congruence scores and high accuracy scores with low congruence scores. The general finding in terms of teacher stereotype accuracy was that the teacher's ability to accurately perceive the pooled responses of his students on the self-concept scale has no relation to the student's perception of the nature of the teacher-student interpersonal relationship.

### Conclusions

A study of classroom interaction in terms of perceptual theory as a basis for explaining human behavior necessitates the assessment of perceptions of teachers and students. The results in terms of reliability of student response to the relationship inventory offer much promise that the instrument will prove to be valuable in studying the communication of feelings within the elementary school classroom.

1. Results from question one pairing high relationship scores with high self-concept and low relationship scores with low self-concept scores at the sixth grade level and not at the third immediately stimulates the question of



why. Looking at the third grade group, one is made aware that a large portion of these students rate their relationship with the teacher as high. The average scores for empathy, regard, congruence and total scale for third graders are higher than the average scores for sixth graders.

In considering the differences found at third and sixth-grade levels it will be well to note that third graders in this study remain with the same teacher all day, whereas the sixth graders have contact with other teachers during the afternoons in a departmentalized system. However, under any organizational system sixth graders will have had more exposure to differing teachers than third graders, thus widening the background from which they respond to questions concerning their interpersonal relationships. In addition to differences noted in relationship scores third graders in general also rate themselves higher on the self-concept measure. However, with these third graders, high relationship scores are not significantly associated with high self-concept scores.

The third grader does not tie his evaluation of himself with his evaluation of his relationship with his teacher. However, with sixth graders the association of self perception with perception of teacher-student interpersonal relationship indicates that (1) sixth graders have a more clearly defined self-concept, which in turn influences their perceptions of others and/or (2) the quality of

the relationship with a teacher is more important to a sixth grader, thus influencing his evaluation of himself. Considering the societal pressures upon children to succeed in school along with previous findings that students who perceive themselves to have facilitating relationships with their teacher are also the higher achieving, the higher ability and the better behaved students (Thompson, 1969; Lewis, 1965), there is little reason to doubt the importance of the teacher-student relationship in the child's evaluation of himself. Whether a change in the quality of the teacher-student interpersonal relationship as perceived by the student would be reflected in a change in the student's self-concept remains to be answered.

The finding that with girls relationship scores and self-concept scores are related at a higher level of significance on all scales than with boys suggests that perhaps girls are more influenced by the interpersonal experience with a teacher than boys. In this study the majority of the teachers are women. However, at the sixth-grade level three of the six teachers are men. Only through further analysis could one ascertain whether the sex of the teacher might be related to the differences in the relationship scores of boys and girls.

Differences seen in results involving ability, achievement and socioeconomic levels are not as clearly defined as differences for grade level or sex. However, the trends indicate that the groups experiencing the most con-

sistency between self-concept and perception of teacher-student relationship are the high-ability, high-achieving and middle socio-economic level students. This indicates that either these students have a more unified feeling and perception of self and others or that they are more influenced by the teacher.

2. The failure to find any association of teacher differential accuracy in perceiving student self-concepts with student perceptions of the teacher-student interpersonal relationship suggests the possibility that (1) a teacher's understanding of the way a child feels about himself has no association with that child's perception of the teacher, (2) teachers do not communicate their understanding of the child in such a way that it is meaningful to him in terms of their relationship or (3) a teacher's understanding of a child in terms of the particular items on the self-concept scale used are not related to the communication of feelings between teacher and student.

However, before any of the preceeding suggestions could be adequately evaluated consideration should be given to the differences in relationship scores between third and sixth grades. Studying cases of high-differential accuracy and cases of low-differential accuracy, one finds approximately two-thirds of the high accuracy scores are with sixth grade teachers and two-thirds of the low scores are with third grade teachers. Considering that the general trend is for sixth grade relationship scores to be lower

than third, it seems advisable to approach a comparison of relationship scores and differential accuracy of teachers by studying third and sixth grades as completely separate groups.

The trend for sixth grade teachers to be more accurate perhaps reflects a greater maturity of the student in terms of a more clearly defined self-concept. The sixth grade student perhaps behaves in a more consistent manner, thus expressing his feelings toward himself in a more obvious way than the third grader. In addition if a child has been in a school for six years, the sixth grade teacher will have had more chances through indirect encounter during play periods, lunch time and from comments coming from other teachers to know a child better than the third grade teacher would have had. Specific to this study is the possibility that a sixth grade teacher may have had a previous association with certain children due to the departmentalized teaching in the upper three grades.

3. The concept of stereotype accuracy represents a task requiring a more generalized discrimination ability than differential accuracy. However, even with this measure of more generalized teacher knowledge of his students no significant relationships were found linking high-stereotype accuracy with high relationship or low-stereotype accuracy with low relationship scores. Indeed, the only significant finding links high congruence with low-stereotype accuracy and low congruence with high-stereotype

accuracy for the high socio-economic group of students. Perhaps this association can best be explained in terms of differences in third and sixth grades. Four of the six third grade teachers received low-stereotype accuracy scores. The averaged relationship scores in the third grade classes tend to run higher than the averaged scores in the sixth grade. It appears that differences in relationship scores between the third and sixth grades have an overriding effect on all questions considered in this study. In terms of teacher stereotype accuracy investigations of each class separately are called for before this teacher ability is eliminated as being significantly associated with facilitating/non-facilitating teacher-student interpersonal relationships as perceived by the student.

### Implications

It has been previously stated in this study that a counselor in an elementary school should be able to make positive contributions for the development of an environment conducive to learning and growth for all children. It was stated that he must recognize critical elements which operate to establish such an environment in a given classroom and know something of the effects of these elements interacting with one another upon the learner.

The results of this study suggest to counselors and teachers that they be aware of the differences in the characteristic manner in which third and sixth graders view

themselves and their relationship with their teachers. Educators of elementary school children would do well to investigate the possibility that the experiences they are providing for children influence the increased negativism of older children. The general trends favor girls, higher ability students, higher achieving students and middle socio-economic level students. Counselors in working with teachers should be alert to the possibility that teachers more easily accept and express more concern for the successful female, middle socio-economic level student.

In addition to the preceeding implications of this study, the following comments suggest possibilities for further research.

An examination of teacher-student interpersonal relationships represents only one segment of the relationships involved in creating a total classroom environment. Another vital component is represented in the peer relationships within the classroom. The question arises concerning whether a child's relationship with his teacher or his peer group is more closely related to his feelings of self-adequacy. In addition there are influencing factors external to the classroom. For example, one might question whether a child's perception of himself is more closely associated with his perception of his relationship with his teacher or with his parent; does this differ with the sex or age of the child.

Questions still remain unanswered in terms of possible differences in a teacher's frame of reference which might contribute to differing student perceptions. The findings of this study support the investigation of more generalized aspects perhaps in terms of teacher perceptions of people as capable, worthy, trustful, etc.; perhaps in terms of teacher acceptance of self; or perhaps in terms of their understanding of the responsibilities and problems of their positions.

In terms of the data already collected in this study, there are questions which could be answered by further analysis. For example, centering upon the differences between third and sixth graders, one might question whether within each group differences exist between girls and boys; between high, middle and low ability or achievement levels; or among different socioeconomic levels.

Another suggestion for additional research would be the study of a given group of students over a period of years. Following a given student as he experiences school under the guidance of a series of teachers would perhaps yield some patterns indicating the significance to the student of his perception of his interpersonal relationship with his teacher.

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## APPENDIX A

Name \_\_\_\_\_ Grade \_\_\_\_\_ Age \_\_\_\_\_ Boy or Girl \_\_\_\_\_

## RELATIONSHIP INVENTORY-ELEMENTARY FORM

## Instructions:

Below are listed ways that a person may feel or behave toward another person. Think about each statement in terms of the way you presently get along with your teacher. Follow along as I read each statement and then check one column according to how strongly you feel that it is true or false in your relationship with your teacher.

	Always True	Usually True	Sometimes True and Sometimes False	Usually False	Always False
Examples:					
A. He teaches me many things.					
B. He listens to my ideas.					
C. I like school.					
1. He likes me just the way I am.					
2. He tries to understand what I am thinking.					
3. He is interested in me only part of the time depending upon what I do or say.					

	Always True	Usually True	Sometimes True and Sometimes False	Usually False	Always False
4. He enjoys being around me.					
5. When I am doing something he does not like he gets upset quickly.					
6. He understands the words I say, but does not know how I feel.					
7. Sometimes he likes me better than other times.					
8. He does not like it when I ask or talk about some things.					
9. He cares about me.					
10. He nearly always knows exactly what I mean.					
11. The way I feel about him does not change how he feels toward me.					

	Always True	Usually True	Sometimes True and Sometimes False	Usually False	Always False
12. He usually says exactly what he thinks.					
13. I feel that he does not like me.					
14. Sometimes the things he thinks or believes keep him from understanding my ideas.					
15. He would like for me to act like a different kind of person.					
16. He pretends to like me more than he really does.					
17. He wishes I were not around.					
18. He can tell what I mean, even when I have trouble saying it.					

	Always True	Usually True	Sometimes True and Sometimes False	Usually False	Always False
19. Nothing that I say or do changes the way he feels about me.					
20. Sometimes he would rather not be around me, but he does not want me to know it.					
21. He is friendly toward me.					
22. Sometimes he does not notice how I feel.					
23. If I am angry with him he gets angry, too.					
24. I feel that he is honest with me.					
25. He does not care about me.					
26. He does not know the things that upset me easily.					



	Always True	Usually True	Sometimes True and Sometimes False	Usually False	Always False
27. Whether I am happy or sad does not change the way he feels toward me.					
28. Sometimes I think that what he says to me is different from what he really feels.					
29. He is very interested in me.					
30. When I am hurt or upset he knows just how I feel.					
31. Whether other people like me or do not like me, does not change how he feels toward me.					
32. I think that he shows his true feelings toward me.					

## APPENDIX B

Name \_\_\_\_\_

## RELATIONSHIP INVENTORY-ELEMENTARY FORM

## Scoring Sheet

Number \_\_\_\_\_ Class \_\_\_\_\_ Age \_\_\_\_\_ Sex \_\_\_\_\_

## Positive Items

Empathy		Regard		Congruence		Unconditional Regard	
2		1		4		11	
10		9		12		19	
18		21		24		27	
30		29		32		31	
Sub- totals							

## Negative Items

Empathy		Regard		Congruence		Unconditional Regard	
6		5		8		3	
14		13		16		7	
22		17		20		15	
26		25		28		23	
Sub- totals							
Totals							

Total all scales \_\_\_\_\_

Self-Concept Score \_\_\_\_\_

Achievement Level \_\_\_\_\_

Intelligence Level \_\_\_\_\_

Socioeconomic Level \_\_\_\_\_

## APPENDIX C

Items From The How I See Myself Scale

1. Nothing gets me too mad.
2. I stay with something till I finish.
3. I'm very good at drawing.
4. I like to work with others.
5. I'm just the right height.
6. I don't worry much.
7. My hair is nice-looking.
8. Teachers like me.
9. I've lots of energy.
10. I play games very well.
11. I'm just the right weight.
12. The girls like me a lot, choose me.
13. I'm very good at speaking before a group.
14. My face is pretty (good looking.)
15. I'm very good in music.
16. I get along well with teachers.
17. I like teachers very much.
18. I feel very at ease, comfortable inside.
19. I like to try new things.
20. I can handle my feelings.
21. I do well in school work.
22. I want the boys to like me.
23. I like the way I look.
24. I want the girls to like me.
25. I'm very healthy.
26. I'm a very good dancer.
27. I write well.
28. I like to work alone.
29. I use my time well.
30. I'm very good at making things with my hands.
31. My skin is nice-looking.
32. School is very interesting.
33. I'm real good in mathematics.
34. I'm smarter than most of the others.
35. The boys like me a lot, choose me.
36. My clothes are nice.
37. I like school.
38. I'm happy with the way I am.
39. I read very well.
40. I learn new things easily.

APPENDIX D

TABLE VIII

DATA FOR ALL STUDENTS: STUDENT NUMBER; SEX; CLASS; STUDENT SCORES FOR  
 EMPATHY, REGARD, CONGRUENCE, UNCONDITIONAL REGARD, TOTAL  
 RELATIONSHIP, SELF-CONCEPT, READING ACHIEVEMENT,  
 GENERAL ABILITY; SOCIO-ECONOMIC LEVEL;  
 AND TEACHER DIFFERENTIAL  
 ACCURACY SCORE (DA)

No.	Sex	Class	Emp	Reg	Cong	UReg	Total	S-C	Ach	Ability	SEL	DA
1	F	3-A	31/H	38/H	35/H	30/H	134/H	185/H	3.5/L	116/H	1	
2	M	3-A	23/L	29/M	26/L	26/M	104/M	149/M	5.0/H	113/H	1	65/L
3	M	3-A	34/H	35/H	38/H	30/H	137/H	141/H	6.0/H	123/H	2	
4	F	3-A	33/H	39/H	35/H	36/H	143/H	124/L	4.7/H		1	
5	F	3-A	28/H	28/M	28/M	27/M	111/M	127/L	4.4/H	103/L	2	66/L
6	F	3-A	25/M	34/H	36/H	33/H	118/H	185/H		103/L	1	33/H
7	M	3-A	26/M	33/H	35/H	30/H	124/H	145/M	3.3/L	101/L	1	
8	F	3-A	36/H	35/H	35/H	35/H	141/H	178/H	2.1/L	105/L	2	
9	M	3-A	19/L	29/M	23/L	31/H	102/M	120/L	4.1/M	101/L	1	
10	M	3-A	30/H	38/H	35/H	23/L	126/H	153/M		106/M	1	
11	M	3-A	20/L	36/H	25/L	31/H	112/M	157/H	5.1/H	107/M	2	
12	M	3-A	28/H	31/M	33/H	28/M	120/H	157/H	4.3/M	108/M	1	57/L
13	M	3-A	20/L	25/L	26/L	28/M	99/L	130/M	6.1/H		2	
14	M	3-A	27/H	35/H	31/H	26/M	119/H	160/H	3.4/L	99/L	1	
15	F	3-A	28/H	37/H	37/H	33/H	135/H	170/H	4.2/M	120/H	2	
16	M	3-A	29/H	35/H	31/H	24/L	119/H	115/L	4.0/M	98/L	1	
17	M	3-A	26/M	36/H	30/M	28/M	120/H	188/H	5.4/H	115/H	2	47/H
18	M	3-A	20/L	35/H	35/H	18/L	108/M	168/H		115/H	2	
19	F	3-A	38/H	40/H	40/H	34/H	152/H	131/M	2.8/L	114/H	1	
20	F	3-A	28/H	36/H	34/H	24/L	122/H	152/M	3.6/L	111/M	2	59/L
21	F	3-A	28/H	40/H	39/H	21/L	128/H	166/H	5.7/H	111/M	1	

TABLE VIII (continued)

No.	Sex	Class	Emp	Reg	Cong	UReg	Total	S-C	Ach	Ability	SEL	DA
22	M	3-A	25/M	31/M	30/M	26/M	112/M	99/L	5.3/H	120/H	2	
23	F	3-A	31/H	33/H	31/H	27/M	122/H	163/H		103/L	1	
24	M	3-B	28/H	31/M	31/H	33/H	123/H	137/M	4.6/H	112/M	2	
25	F	3-B	26/M	34/H	36/H	32/H	128/H	179/H	4.8/H	116/H	1	
26	F	3-B	17/L	10/L	19/L	23/L	69/L	76/L	4.4/H	115/H	2	
27	M	3-B	31/H	35/H	33/H	16/L	115/M	134/M	3.2/L	93/L	1	50/H
28	F	3-B	28/H	34/H	30/M	24/L	116/M	125/L	2.5/L	89/L	1	
29	M	3-B	22/L	27/L	34/H	25/L	108/M	164/H	3.3/L	113/H	2	
30	F	3-B	28/H	35/H	33/H	26/M	122/H	151/M	3.5/L	117/H	2	77/L
31	M	3-B	26/M	26/L	29/M	23/L	104/M	161/H	4.1/M	108/M	2	
32	M	3-B	29/H	31/M	30/M	22/L	112/M	136/M	4.9/H	133/H	2	
33	F	3-B	25/M	30/M	28/M	29/H	112/M	164/H	5.3/H	124/H	1	
34	M	3-B	35/H	32/M	27/L	30/H	124/H	155/H	4.1/M	114/H	1	
35	F	3-B	26/M	33/H	34/H	29/H	122/H	140/M		107/M	1	
36	M	3-B	28/H	31/M	31/H	28/H	118/H	142/M	3.9/M	101/L	1	
37	M	3-B	24/M	34/H	30/M	19/L	107/M	116/L	3.5/L	102/L	1	70/L
38	M	3-B	26/M	32/M	26/L	27/M	111/M	132/M	4.0/M	106/M	1	
39	M	3-B	32/H	33/H	31/H	20/L	116/M	124/L	4.2/M	121/H	1	
40	F	3-B	27/H	31/M	33/H	28/M	119/H	189/H	3.9/M	108/M	1	69/L
41	F	3-B	25/M	38/H	32/H	32/H	127/H	142/M	3.4/L	118/H	2	58/L
42	F	3-B	26/M	30/M	27/L	25/L	108/M	136/M	4.3/M	118/H	1	
43	M	3-B	28/H	33/H	30/M	23/L	114/M	173/H	5.0/H	119/H	1	
44	M	3-B	25/M	36/H	28/M	27/M	116/M	141/M	4.9/H	112/M	1	57/L
45	M	3-B	27/H	33/H	32/H	25/L	117/H	141/M	4.0/M	113/H	2	
46	F	3-B	30/H	31/M	31/H	27/M	119/H	129/M	5.9/H	123/H	1	
47	F	3-B	25/M	39/H	34/H	29/H	132/H	168/H	4.0/M	119/H	1	
48	M	3-C	29/H	29/M	30/M	22/L	110/M	121/L	3.6/L	115/H	2	
49	M	3-C	27/H	34/H	35/H	19/H	105/M	151/M	4.5/H	117/H	2	



TABLE VIII (continued)

No.	Sex	Class	Emp	Reg	Cong	UReg	Total	S-C	Ach	Ability	SEL	DA
50	F	3-C	25/M	30/M	27/L	27/M	109/M	170/H	2.3/L	102/L	2	
51	M	3-C	24/M	25/L	30/M	28/M	107/M	114/L	3.6/L	91/L	2	
52	F	3-C	28/H	37/H	33/H	22/L	120/H	164/H	4.4/H	104/L	2	
53	F	3-C	23/L	33/H	28/M	30/H	114/M	148/M	4.6/H	112/M	2	
54	F	3-C	25/M	33/H	25/L	21/L	104/M	147/M	4.1/M	107/M	2	
55	F	3-C	23/L	32/M	22/L	27/M	104/M	112/L	2.7/L	99/L	3	86/L
56	M	3-C	27/H	28/M	30/M	26/M	111/M	135/M	4.0/M	107/M	2	
57	F	3-C	27/H	33/H	35/H	33/H	128/H	188/H	5.1/H	116/H	2	8/H
58	M	3-C	24/M	35/H	31/H	27/M	117/H	129/M	4.0/M	105/L	1	
59	F	3-C	26/M	29/M	27/L	26/M	198/M	168/H	3.3/L	105/L	2	
60	M	3-C	24/M	32/M	32/H	20/L	108/M	159/H	4.2/M	111/M	1	
61	F	3-C	27/H	33/H	27/L	30/H	117/H	166/H	4.2/M	109/M	2	
62	M	3-C	30/H	35/H	38/H	33/H	136/H	157/H		121/H	2	48/H
63	M	3-C	25/M	33/H	30/M	26/M	114/M	140/H	3.8/M	99/L	2	58/L
64	F	3-C	27/H	34/H	33/H	31/H	125/H	134/M		111/M	2	57/L
65	M	3-C	26/M	30/M	25/L	23/L	104/M	164/H	3.1/L	106/M	1	
66	F	3-C	27/H	34/H	33/H	25/L	119/H	168/H	3.5/L	108/M	2	39/H
67	F	3-C	26/M	32/M	33/H	22/L	113/M	118/L	3.7/M	111/M	1	
68	M	3-D	25/M	30/M	19/L	20/L	94/L	184/H	1.5/L	91/L	2	
69	M	3-D	19/L	32/M	32/H	32/H	105/M	162/H	2.5/L	91/L	1	
70	M	3-D	23/L	24/L	25/L	23/L	95/L	107/L	3.7/M	113/H	2	
71	F	3-D	18/L	12/L	17/L	26/M	63/L	108/L	1.8/L	96/L	3	69/L
72	M	3-D	28/H	26/L	24/L	27/M	105/M	137/M	3.9/M	113/H	3	
73	F	3-D	35/H	34/H	39/H	34/H	142/H	159/H	4.5/H	105/L	2	
74	F	3-D	23/L	33/H	26/L	27/M	109/M	149/M	4.5/H	130/H	1	
75	F	3-D	28/H	29/M	27/L	20/L	104/M	152/M	3.6/L	111/M	2	
76	M	3-D	25/M	29/M	27/L	26/M	107/M	168/H	4.7/H	120/H	1	
77	F	3-D	23/L	37/H	30/M	23/L	109/M	138/M	4.0/M	115/H	2	

TABLE VIII (continued)

No.	Sex	Class	Emp	Reg	Cong	UReg	Total	S-C	Ach	Ability	SEL	DA
78	F	3-D	27/H	33/H	29/M	27/M	106/M	142/M	2.1/L	92/L	2	
79	M	3-D	29/H	23/L	29/M	23/L	114/M	106/L	2.8/L	90/L	2	
80	M	3-D	25/M	36/H	37/H	21/L	119/H	146/M	2.9/L	92/L	3	85/L
81	M	3-D	24/M	31/M	35/H	26/M	116/M	164/H	3.5/L	106/M	2	53/H
82	F	3-D	21/L	34/H	30/M	32/H	117/H	150/M	3.2/L	114/H	2	
83	F	3-D	19/L	13/L	9/L	26/M	67/L	151/M	4.2/M	118/H	1	
84	F	3-D	28/H	35/H	37/H	33/H	133/H	163/H	4.7/H	109/M	2	
85	F	3-D	28/H	22/L	27/L	19/L	96/L	164/H	2.7/L	83/L	2	65/L
86	F	3-D	22/L	14/L	15/L	22/L	73/L	142/M	4.4/H	121/H	1	59/L
87	M	3-D	20/L	33/H	37/H	24/L	114/M	119/L	3.8/M	123/H	2	
88	M	3-D	26/M	27/L	29/M	27/M	109/M	167/H	3.8/M	106/M	1	35/H
89	M	3-D	24/M	33/H	28/M	21/L	106/M	103/L	3.9/M	116/H	2	
90	M	3-D	26/M	26/L	21/L	26/M	99/L	113/L	4.3/M	105/L	1	
91	M	3-D	22/L	21/L	22/L	23/L	88/L	153/M		108/M	2	
92	M	3-D	28/H	32/M	25/L	31/H	116/M	106/L	2.5/L	102/L	1	
93	M	3-E	20/L	29/M	27/L	25/L	101/L	141/M	3.6/L	115/H	2	
94	F	3-E	28/H	39/H	37/H	33/H	137/H	142/M	4.2/M	124/H	1	
95	F	3-E	32/H	37/H	36/H	33/H	138/H	172/H	3.4/L	106/M	2	
96	M	3-E	28/H	32/M	33/H	27/M	120/H	121/M	3.3/L	110/M	3	38/H
97	M	3-E	27/H	38/H	27/L	26/M	118/H	136/M	6.7/H	120/H	1	
98	M	3-E	34/H	36/H	32/H	32/H	134/H	153/M	5.6/H	104/L	2	
99	F	3-E	40/H	38/H	28/M	34/H	140/H	142/M	6.0/H	114/H	2	
100	M	3-E	29/H	35/H	28/M	24/L	116/M	141/M		116/H	2	45/H
101	F	3-E	28/H	34/H	31/H	27/M	120/H	147/M	3.2/L	102/L	1	
102	M	3-E	27/H	36/H	36/H	26/M	125/H	184/H	3.1/L	95/L	1	
103	F	3-E	32/H	38/H	31/H	31/H	132/H	99/L	4.0/M	108/M	1	71/L
104	M	3-E	27/H	30/M	29/M	26/M	112/M	149/M	4.8/H	114/H	1	
105	M	3-E	28/H	35/H	30/M	21/L	114/M	158/H	4.0/M	110/M	2	

TABLE VIII (continued)

No.	Sex	Class	Emp	Reg	Cong	UReg	Total	S-C	Ach	Ability	SEL	DA
106	M	3-E	28/H	39/H	23/L	20/L	110/M	148/M	4.4/H	121/H	2	60/L
107	F	3-E	28/H	36/H	30/M	24/L	118/H	140/M	3.7/M	116/H	1	
108	M	3-E	33/H	40/H	40/H	36/H	146/H	155/H	5.4/H	117/H	1	
109	M	3-E	23/L	36/H	37/H	30/H	126/H	136/M	2.4/L		3	
110	F	3-E	27/H	32/M	28/M	25/L	112/M	125/M	3.9/M	115/H	2	
111	F	3-E	27/H	23/L	25/L	22/L	97/L	149/M	2.9/L	107/M	2	
112	M	3-E	30/H	39/H	37/H	30/H	136/H	169/H	3.9/M	119/H	1	
113	F	3-E	30/H	37/H	29/M	26/M	122/H	149/M	4.5/H		1	
114	M	3-E	29/H	35/H	30/M	22/L	116/M	169/H	2.5/L	103/L	1	59/L
115	M	3-E	20/L	25/L	23/L	25/L	93/L	144/M	1.9/L	97/L	3	
116	F	3-E	25/M	33/H	30/M	24/L	112/M	129/M	3.4/L	113/H	2	46/H
117	F	3-E	26/M	31/M	32/H	25/L	114/M	150/M	6.5/H	110/M	1	
118	M	3-F	24/M	29/M	28/M	20/L	101/L	125/L		113/H	2	77/L
119	F	3-F	29/H	34/H	35/H	29/H	127/H	181/H	3.6/L	115/H	2	
120	F	3-F	31/H	34/H	30/M	26/M	121/H	169/H	4.7/H	116/H	2	
121	F	3-F	25/M	36/H	34/H	27/M	122/H	184/H	3.1/L	105/L	2	
122	M	3-F	32/H	29/M	33/H	25/L	119/H	132/M	2.6/L	89/L	2	
123	F	3-F	31/H	29/M	31/H	29/H	120/H	144/M	4.7/H	117/H	1	
124	M	3-F	29/H	32/M	31/H	26/M	118/H	141/M	3.5/L	106/M	1	
125	M	3-F	26/M	33/H	28/M	29/H	116/M	137/M	4.5/H	108/M	2	
126	M	3-F	22/L	39/H	30/M	28/M	119/H	104/L	5.9/H	108/M	2	
127	F	3-F	27/H	33/H	28/M	28/M	116/M	161/H	5.4/H	107/M	2	
128	F	3-F	32/H	39/H	35/H	30/H	136/H	191/H	4.0/M	115/H	2	
129	F	3-F	30/H	35/H	33/H	24/L	132/H	148/M	3.6/L	104/L	3	
130	F	3-F	32/H	31/M	28/M	27/M	118/H	153/M	4.2/M	105/L	2	47/H
131	F	3-F	29/H	35/H	30/M	28/M	122/H	145/M	5.6/H	114/H	3	
132	M	3-F	30/H	35/H	34/H	26/M	125/H	144/M	2.8/L	115/H	3	
133	F	3-F	31/H	39/H	34/H	27/M	131/H	167/H	2.1/L	85/L	2	61/L

TABLE VIII (continued)

No.	Sex	Class	Emp	Reg	Cong	UReg	Total	S-C	Ach	Ability	SEL	DA
134	F	3-F	31/H	37/H	33/H	28/M	129/H	167/H	5.2/H	110/M	1	
135	M	3-F	33/H	31/M	33/H	26/M	123/H	156/H	4.0/M	108/M	2	54/M
136	F	3-F	29/H	26/L	29/M	28/M	112/M	128/L	2.0/L	101/L	2	80/L
137	F	3-F	29/H	36/H	28/M	26/M	119/H	130/M	4.3/M	122/H	3	67/L
138	F	6-A	17/L	23/L	32/H	27/M	89/L	116/L	4.3/L	75/L	3	78/L
139	M	6-A	26/M	29/M	27/L	23/L	103/M	113/L	4.0/L	85/L	1	
140	F	6-A	20/L	26/L	27/L	23/L	96/L	126/L	7.5/M	116/M	3	45/H
141	M	6-A	18/L	27/L	25/L	25/L	95/L	149/M	6.7/M	104/L	2	61/L
142	M	6-A	23/L	35/H	28/M	32/H	118/H	144/M		109/M	1	55/L
143	F	6-A	23/L	29/M	28/M	28/M	107/M	131/M	6.7/M	124/H	2	
144	M	6-A	21/L	13/L	21/L	24/L	79/L	127/L	9.2/H	131/H	1	
145	M	6-A	34/H	35/H	29/M	25/L	123/H	164/H	6.7/M	108/M	1	
146	F	6-A	15/L	20/L	20/L	29/H	84/L	122/L	8.0/H	134/H	1	45/H
147	M	6-A	29/H	29/M	28/M	20/L	106/M	140/M	9.6/H	111/M	1	
148	F	6-A	26/M	32/M	26/L	29/H	113/M	138/M	10.0/H	129/H	1	
149	F	6-A	21/L	23/L	25/L	23/L	92/L	128/L	10.4/H	140/H	1	
150	M	6-A	19/L	30/M	23/L	23/L	95/L	129/M	8.2/H	115/M	1	
151	F	6-A	19/L	22/L	23/L	26/M	90/L	119/L	8.5/H	125/H	1	
152	F	6-A	29/H	27/L	27/L	24/L	107/M	121/L	8.6/H	123/H	1	
153	F	6-A	27/H	27/L	28/M	23/L	105/M	130/M	6.2/L	107/M	2	48/H
154	M	6-A	30/H	30/M	32/H	30/H	122/H	104/L	7.6/M	115/M	3	
155	M	6-A	20/L	26/L	27/L	19/L	92/L	95/L	9.1/H	130/H	2	
156	F	6-A	30/H	38/H	38/H	33/H	141/H	128/L	7.5/M	110/M	3	
157	M	6-A	20/L	26/L	23/L	23/L	92/L	127/L	6.7/M	118/H	1	
158	M	6-A	26/M	30/M	31/H	28/M	115/M	145/M	10.7/H	143/H	1	
159	F	6-A	26/M	26/L	28/M	25/L	105/M	140/M	6.4/M	123/H	1	
160	M	6-B	15/L	22/L	21/L	23/L	81/L	129/M	7.5/M	121/H	1	

TABLE VIII (continued)

No.	Sex	Class	Emp	Reg	Cong	UReg	Total	S-C	Ach	Ability	SEL	DA
161	M	6-B	24/M	33/H	32/H	20/L	109/M	149/M	10.4/H	125/H	3	
162	F	6-B	23/L	22/L	26/L	25/L	95/L	117/L	9.2/H	121/H	1	
163	F	6-B	19/L	21/L	15/L	21/L	66/L	112/L	7.2/M	111/M	2	41/H
164	F	6-B	28/H	36/H	33/H	32/H	129/H	169/H	9.0/H	120/H	1	
165	M	6-B	13/L	22/L	26/L	19/L	80/L	143/M	10.3/H	125/H	1	53/H
166	M	6-B	19/L	12/L	16/L	16/L	63/L	118/L	7.1/M	112/M	2	
167	F	6-B	20/L	26/L	22/L	24/L	92/L	125/L	5.7/L	115/M	1	44/H
168	F	6-B	20/L	30/M	27/L	21/L	98/L	117/L	7.9/H	123/H	2	
169	M	6-B	13/L	8/L	16/L	32/H	69/L	127/L	8.7/H	116/M	1	
170	M	6-B	21/L	9/L	19/L	30/H	79/L	168/H	5.9/L	116/M	2	
171	F	6-B	23/L	20/L	20/L	29/H	92/L	105/L	5.2/L	106/M	2	
172	M	6-B	28/H	21/L	25/L	23/L	97/L	142/M	10.6/H	127/H	1	
173	F	6-B	27/H	30/M	24/L	23/L	104/M	161/H	9.3/H	126/H	2	
174	M	6-B	21/L	24/L	20/L	23/L	88/L	141/M	8.0/H	112/M	1	
175	F	6-B	9/L	10/L	28/M	28/M	85/L	128/L	8.0/H	132/H	1	
176	M	6-B	14/L	11/L	18/L	25/L	68/L	148/M	5.6/L	87/L	2	
177	F	6-B	27/H	33/H	30/M	26/M	116/M	141/M	6.6/M	112/M	2	45/H
178	M	6-B	23/L	19/L	23/L	24/L	89/L	155/H	6.7/M	114/M	2	
179	F	6-B	23/L	34/H	29/M	28/M	114/M	153/M	7.0/M	126/H	1	53/H
180	F	6-B	24/M	23/L	29/M	24/L	100/L	165/H	8.9/H	131/H	2	
181	M	6-B	12/L	12/L	12/L	20/L	56/L	141/M		122/H	1	59/L
182	F	6-B	20/L	16/L	19/L	18/L	73/L	137/M	6.3/M	109/M	2	
183	F	6-C	30/H	33/H	30/M	27/M	115/M	137/M	6.2/L	101/L	2	
184	F	6-C	20/L	30/M	28/M	21/L	99/L	121/L	10.6/H	129/H	1	
185	F	6-C	13/L	18/L	19/L	29/H	79/L	140/M	7.6/M	121/H	3	
186	M	6-C	18/L	29/M	27/L	22/L	96/L	120/L	6.8/M	108/M	3	
187	M	6-C	20/L	22/L	24/L	23/L	89/L	96/L	7.2/M	127/H	2	
188	M	6-C	18/L	14/L	17/L	26/M	75/L	151/M	4.7/L	107/M	1	

TABLE VIII (continued)

No.	Sex	Class	Emp	Reg	Cong	UReg	Total	S-C	Ach	Ability	SEL	DA
189	F	6-C	12/L	15/L	16/L	26/M	69/L	133/M	10.5/H	124/H	1	
190	F	6-C	11/L	19/L	16/L	27/M	73/L	104/L	11.3/H	121/H	3	
191	F	6-C	28/H	34/H	27/L	30/H	119/H	164/H	6.0/L	111/M	3	
192	F	6-C	25/M	32/M	30/M	23/L	110/M	133/M	7.2/M	114/M	2	57/L
193	M	6-C	19/L	17/L	25/L	19/L	80/L	117/L	11.1/H	119/H	2	61/L
194	M	6-C	22/L	22/L	25/L	29/H	98/L	104/L	5.2/L	102/L	2	
195	M	6-C	26/M	26/L	28/M	27/M	107/M	164/H	10.1/H	108/M	1	
196	F	6-C	22/L	24/L	28/M	29/H	103/M	139/M	7.6/M	121/H	1	
197	F	6-C	21/L	27/L	23/L	23/L	94/L	145/M	5.5/L	107/M	2	54/M
198	F	6-C	22/L	34/H	35/H	30/H	121/H	123/L	8.3/H	117/H	1	47/H
199	F	6-C	14/L	28/M	28/M	25/L	95/L	118/L		115/M	1	
200	M	6-C	17/L	27/L	25/L	21/L	90/L	154/H	10.1/H	113/M	1	
201	M	6-C	30/H	30/M	29/M	26/M	115/M	180/H	5.5/L	107/M	2	
202	M	6-C	20/L	29/M	31/H	28/M	108/M	152/M	7.6/M	110/M	2	68/L
203	M	6-C	27/H	32/M	27/L	28/M	114/M	134/M	6.5/M	121/H	2	
204	M	6-C	15/L	32/M	27/L	32/H	106/M	132/M	7.3/M	111/M	2	
205	M	6-C	21/L	22/L	22/L	21/L	86/L	148/M	7.5/M	121/H	3	
206	M	6-C	12/L	22/L	24/L	28/M	86/L	134/M	4.3/L	90/L	2	
207	F	6-C	27/H	35/H	30/M	30/H	117/H	132/M	6.2/L	113/M	2	
208	M	6-C	20/L	27/L	24/L	25/L	96/L	148/M	5.6/L	98/L	2	52/H
209	M	6-C	24/M	31/M	32/M	28/M	115/M	169/H	6.1/L	102/L	2	
210	M	6-C	24/M	32/M	29/M	22/L	107/M	123/L	6.5/M	101/L	3	
211	M	6-C	10/L	17/L	15/L	26/M	68/L	161/H	3.5/L	81/L	2	
212	M	6-D	26/M	27/L	28/M	21/L	102/M	134/M	5.9/L	105/M	3	
213	M	6-D	22/L	27/L	30/M	30/H	109/M	144/M	8.5/H	121/H	2	
214	M	6-D	20/L	22/L	24/L	23/L	89/L	106/L	5.0/L	85/L	2	
215	F	6-D	25/M	33/H	36/H	36/H	130/H	131/M	6.6/M	106/M	2	52/H
216	M	6-D	16/L	19/L	24/L	25/L	86/L	108/L	6.3/M	111/M	3	
217	F	6-D	22/L	21/L	30/M	27/M	100/L	135/M		88/L	3	

TABLE VIII (continued)

No.	Sex	Class	Emp	Reg	Cong	UReg	Total	S-C	Ach	Ability	SEL	DA
218	M	6-D	20/L	22/L	26/L	25/L	93/L	146/M	3.9/L	84/L	2	
219	M	6-D	28/H	36/H	33/H	32/H	129/H	158/H	7.6/M	130/H	2	37/H
220	M	6-D	28/H	25/L	17/L	28/M	98/L	98/L			3	62/L
221	M	6-D	24/M	35/H	29/M	28/M	116/M	168/H	6.5/M	122/H	2	46/H
222	F	6-D	37/H	34/H	29/M	25/L	125/H	154/H	3.7/L	60/L	3	67/L
223	M	6-D	22/L	20/L	20/L	24/L	86/L	97/L	4.1/L	77/L	3	
224	M	6-D	26/M	31/M	28/M	28/M	113/M	145/M	8.2/H	107/M	1	
225	M	6-D	15/L	19/L	14/L	23/L	71/L	126/L	4.9/L	100/L	2	
226	M	6-D	22/L	36/H	31/H	28/M	117/H	129/M	6.8/M	111/M	3	
227	M	6-D	20/L	18/L	17/L	23/L	78/L	121/M		111/M	3	
228	F	6-D	26/M	39/H	36/H	19/L	120/H	160/H		106/M	3	
229	M	6-D	23/L	21/L	22/L	22/L	88/L	160/H		85/L	2	44/H
230	F	6-E	25/M	28/M	33/H	25/L	111/M	140/L	4.5/L	110/M	3	
231	F	6-E	27/H	34/H	30/M	26/M	117/H	92/L	5.4/L	108/M	2	
232	M	6-E	26/M	30/M	27/L	38/M	111/M	137/M	5.0/L	90/L	2	39/H
233	F	6-E	33/H	40/H	38/H	36/H	147/H	180/H	7.1/M	107/M	3	
234	M	6-E	29/H	38/H	33/H	32/H	132/H	123/L			2	
235	M	6-E	26/M	35/H	30/M	29/H	120/H	167/H	4.0/L	99/L	3	
236	F	6-E	27/H	35/H	30/M	33/H	125/H	178/H	6.6/M	113/M	2	
237	F	6-E	24/M	30/M	30/M	26/M	110/M	125/L	5.1/L	104/L	3	
238	M	6-E	24/M	25/L	30/M	20/L	99/L	120/L	7.4/M	109/M	3	
239	F	6-E	23/L	32/M	30/M	30/H	115/M	140/M	5.0/L	94/L	3	
240	F	6-E	24/M	24/L	26/L	23/L	97/L	138/M	4.8/L		3	45/H
241	M	6-E	28/H	37/H	32/H	26/M	123/H	162/H	8.6/H	115/M	2	30/H
242	M	6-E	32/H	37/H	33/H	29/H	121/H	170/H	6.3/M	108/M	2	
243	M	6-E	29/H	33/H	31/H	24/L	117/H	149/M	4.4/L	101/L	2	40/H
244	M	6-E	37/H	35/H	39/H	40/H	151/H	154/H	5.5/L		2	
245	M	6-E	27/H	28/M	33/H	26/M	114/M	163/H	7.1/M	115/M	3	
246	M	6-E	28/H	36/H	30/M	29/H	123/H	142/M	8.9/H	120/H	3	

TABLE VIII (continued)

No.	Sex	Class	Emp	Reg	Cong	UReg	Total	S-C	Ach	Ability	SEL	DA
247	F	6-E	22/L	26/L	25/L	26/M	99/L	103/L	8.2/H	103/L	1	
248	M	6-E	26/M	30/M	33/H	22/L	111/M	122/L	6.7/M	115/M	1	
249	M	6-E	20/L	22/L	24/L	25/L	91/L	90/L	8.1/H	109/M	3	
250	F	6-E	31/H	38/H	37/H	38/H	144/H	167/H	9.1/H	116/M	2	37/H
251	F	6-E	33/H	33/H	32/H	32/H	130/H	168/H	8.0/H	118/H	1	
252	F	6-E	28/H	20/L	27/L	28/M	103/M	109/L	3.8/L	78/L	3	56/L
253	M	6-F	27/H	37/H	29/M	35/H	128/H	149/M	6.8/M	112/M	2	
254	M	6-F	36/H	33/H	32/H	30/H	131/H	110/L	3.6/L	75/L	3	
255	F	6-F	28/H	34/H	33/H	33/H	128/H	142/M	7.1/M	125/H	2	
256	M	6-F	23/L	26/L	24/L	24/L	97/L	132/M	4.9/L	110/M	2	
257	F	6-F	33/H	34/H	35/H	37/H	139/H	157/H	5.9/L	97/L	2	
258	M	6-F	31/H	30/M	32/H	31/H	124/H	138/M	5.1/L	85/L	2	
259	M	6-F	38/H	39/H	36/H	36/H	149/H	153/M	10.9/H	120/H	2	41/H
260	M	6-F	29/H	31/M	30/M	32/H	122/H	121/L		102/L	1	
261	F	6-F	29/H	27/L	26/H	31/H	123/H	167/H	6.4/M	110/M	1	
262	M	6-F	20/L	20/L	21/L	21/L	82/L	127/L	5.8/L	90/L	2	49/H
263	M	6-F	25/M	27/L	26/L	26/M	104/M	120/L	6.6/L	106/M	2	47/H
264	F	6-F	25/M	18/L	17/L	22/L	82/L	124/L	4.3/L	94/L	3	
265	F	6-F	28/H	31/M	32/H	30/H	121/H	131/M	7.9/H	119/H	2	64/L
266	M	6-F	30/H	35/H	35/H	31/H	131/H	176/H	7.7/M	130/H	1	
267	F	6-F	34/H	36/H	38/H	33/H	141/H	178/H	8.6/H		2	35/H
268	M	6-F	25/M	28/M	29/M	27/M	109/M	113/L	4.2/L	102/L	3	
269	M	6-F	31/H	31/M	31/H	32/H	124/H	133/M	8.3/H	132/H	1	
270	M	6-F	26/M	30/M	31/H	26/M	113/M	154/H	5.6/L	97/L	2	
271	M	6-F	29/H	29/M	31/M	33/H	122/H	144/M		166/M	1	
272	F	6-F	28/H	27/L	31/H	27/M	113/M	144/M	6.6/L	106/M	2	
273	F	6-F	33/H	28/M	29/M	26/M	116/M	153/M	5.0/L	104/L	3	
274	M	6-F	27/H	35/H	28/M	24/L	114/M	139/M	4.4/L	91/L	3	
275	F	6-F	29/H	29/M	30/M	25/L	113/M	133/M	6.0/L	104/L	2	
276	M	6-F	38/H	33/H	33/H	28/M	132/H	164/H	10.0/H	125/H	1	40/H



## APPENDIX E

TABLE IX  
NUMERICAL DIVISIONS FOR  
CATEGORIZING SCORES

Scale	Mean	s	.44s	Score Categories		
				High	Middle	Low
Empathy	25	5.3	2	27+ <sup>a</sup>	24-26	23- <sup>b</sup>
Regard	30	6.8	3	33+	28-32	27-
Congruence	29	5.5	2	31+	28-30	27-
Unconditional						
Regard	27	4.3	2	29+	26-28	25-
Total						
Relationship	109	17.9	8	117+	102-116	101-
Self-Concept	141	30.3	13	153+	129-152	128-
<u>Kuhlmann-</u> 3rd---	109	10.4	4	113+	106-112	105-
<u>Anderson</u> 6th---	111	14.4	6	117+	106-116	105-
<u>Stanford</u>						
<u>Achieve-</u> 3rd---	4.0	1.0	.4	4.4+	3.7-4.3	3.6-
<u>ment</u> 6th---	7.0	1.8	.8	7.8+	6.3-7.7	6.2-

a+ refers to that score and above.

b- refers to that score and below.

## APPENDIX F

TABLE X  
AVERAGED CLASS SCORES FOR RELATIONSHIP VARIABLES

N <sub>c</sub>	Category	Average Scores			
		Emp	Reg	Cong	Total

Class 3-A, Teacher Stereotype Accuracy 25/Low:

23	Total	28/H	34/H	33/H	122/H
10	Girls	31/H	36/H	35/H	131/H
13	Boys	25/M	33/H	31/H	116/M
8	HAb	28/H	35/H	34/H	125/H
5	MAb	33/H	37/H	33/H	117/H
8	LAb	23/L	32/M	32/H	123/H
9	HAch	30/H	36/H	34/H	132/H
4	MAch	26/M	33/H	31/H	119/H
6	LAch	31/H	36/H	35/H	132/H
13	HSel	28/H	35/H	33/H	124/H
10	MSel	27/H	33/H	32/H	120/H
0	LSel	none			

Class 3-B, Teacher Stereotype Accuracy 29/Low:

24	Total	27/H	32/M	30/M	115/M
11	Girls	26/M	31/M	31/H	116/M
13	Boys	28/H	32/M	30/M	114/M
14	HAb	27/H	31/M	30/M	114/M
6	MAb	27/H	31/M	30/M	115/M
4	LAb	28/H	34/H	31/H	114/M
8	HAch	26/M	30/M	29/M	112/M
9	MAch	28/H	32/M	30/M	117/H
6	LAch	26/M	36/H	32/H	116/M
16	HSel	28/H	32/M	31/H	111/M
8	MSel	25/M	29/M	30/M	110/M
0	LSel	none			

Class 3-C, Teacher Stereotype Accuracy 41/Low:

20	Total	26/M	32/M	30/M	114/M
11	Girls	26/M	33/H	28/M	115/M
9	Boys	26/M	31/M	31/H	112/M
4	HAb	28/H	33/H	35/H	120/H
10	MAb	23/L	30/M	27/L	103/M
7	LAb	25/M	33/H	28/M	112/M

Note: N<sub>c</sub> means number in a category, Ab means ability, Ach means achievement, Sel means socioeconomic level.

TABLE VII (continued)

N <sub>c</sub>	Category	Average Scores			
		Emp	Reg	Cong	Total
Class 3-C (Continued)					
4	HAch	26/M	34/H	33/H	117/H
7	MAch	25/M	32/M	30/M	112/M
7	LAch	26/M	30/M	28/M	109/M
4	HSel	25/M	32/M	30/M	111/M
15	MSel	27/H	32/M	31/H	115/M
1	LSel	23/L	32/M	22/L	104/M
Class 3-D, Teacher Stereotype Accuracy 21/High					
25	Total	25/M	28/M	27/L	104/M
11	Girls	25/M	27/L	26/L	102/M
14	Boys	24/M	29/M	28/M	106/M
10	HAb	23/L	28/M	28/M	94/L
5	MAb	26/M	31/M	33/H	120/H
10	LAB	26/M	28/M	26/L	105/M
5	HAch	27/H	29/M	29/M	113/M
8	MAch	24/M	27/L	28/M	101/L
11	LAch	25/M	27/L	28/M	105/M
8	HSel	24/M	26/L	23/L	98/L
14	MSel	26/M	30/M	30/M	110/M
3	LSel	27/H	25/L	26/L	89/L
Class 3-E, Teacher Stereotype Accuracy 14/High					
25	Total	28/H	35/H	31/H	120/H
11	Girls	29/H	34/H	31/H	122/H
14	Boys	27/H	35/H	31/H	119/H
12	HAb	29/H	37/H	31/H	122/H
6	MAb	32/H	34/H	31/H	120/H
5	LAB	30/H	33/H	30/M	118/H
8	HAch	31/H	36/H	30/M	125/H
6	MAch	31/H	36/H	32/H	125/H
10	LAch	24/M	32/M	31/H	115/M
13	HSel	29/H	36/H	32/M	124/H
9	MSel	29/H	34/H	27/L	117/H
3	LSel	24/M	31/M	31/H	113/M
Class 3-F, Teacher Stereotype Accuracy 25/Low					
20	Total	29/H	34/H	31/H	121/H
13	Girls	29/H	35/H	31/H	123/H
7	Boys	28/H	33/H	31/H	117/H

TABLE VII (continued)

Nc	Category	Average Scores			
		Emp	Reg	Cong	Total

Class 3-F (Continued)

8	HAb	27/H	34/H	32/H	121/H
6	MAb	29/H	34/H	30/M	121/H
6	LAB	30/H	33/H	32/H	122/H
7	HAch	27/H	34/H	30/M	120/H
4	MAch	32/H	34/H	31/H	124/H
8	LAch	30/H	33/H	33/H	122/H
4	HSel	30/H	33/H	31/H	122/H
13	MSel	29/H	33/H	31/H	120/H
3	LSel	30/H	35/H	32/H	125/H

Class 6-A, Teacher Stereotype Accuracy 23/High

22	Total	24/M	27/L	27/L	103/M
11	Girls	23/L	27/L	27/L	103/M
11	Boys	24/M	28/M	27/L	104/M
11	HAb	22/L	25/L	25/L	100/L
8	MAb	27/H	31/M	27/L	113/M
3	LAB	20/L	26/L	28/M	96/L
10	HAch	23/L	25/L	29/M	97/L
8	MAch	25/M	27/L	24/L	110/M
3	LAch	23/L	26/L	26/L	99/L
14	HSel	24/M	27/L	26/L	102/M
4	MSel	22/L	27/L	27/L	100/L
4	LSel	24/M	29/M	32/H	112/M

Class 6-B, Teacher Stereotype Accuracy 21/High

23	Total	20/L	21/L	23/L	89/L
12	Girls	28/L	25/L	25/L	96/L
11	Boys	18/L	17/L	21/L	80/L
12	HAb	21/L	23/L	26/L	96/L
10	MAb	21/L	19/L	20/L	83/L
1	LAB	14/L	11/L	18/L	68/L
11	HAch	21/L	25/L	26/L	96/L
7	MAch	21/L	21/L	22/L	86/L
4	LAch	14/L	17/L	20/L	89/L
11	HSel	19/L	22/L	23/L	90/L
11	MSel	22/L	20/L	21/L	86/L
1	LSel	24/M	23/H	32/H	109/M

TABLE VII (continued)

N <sub>c</sub>	Category	Average Scores			
		Emp	Reg	Cong	Total

Class 6-C, Teacher Stereotype Accuracy 23/High

29	Total	20/L	26/L	26/L	98/L
12	Girls	20/L	27/L	26/M	100/L
17	Boys	20/L	25/L	25/L	96/L
10	HAb	19/L	23/L	24/L	91/L
12	MAb	21/L	29/M	27/L	103/M
7	LAB	21/L	26/L	26/L	98/L
7	HAch	18/L	24/L	25/L	91/L
10	MAch	20/L	27/L	26/L	98/L
11	LAch	22/L	27/L	25/L	100/L
8	HSel	19/L	25/L	23/L	95/L
15	MSel	21/L	27/L	28/M	101/L
6	LSel	19/L	26/L	24/L	93/L

Class 6-D, Teacher Stereotype Accuracy 27/Low

18	Total	23/L	27/L	26/L	103/M
5	Girls	27/H	32/M	32/H	118/H
13	Boys	22/L	25/L	25/L	97/L
3	HAb	25/M	33/H	31/H	118/H
7	MAb	23/L	29/M	29/M	106/M
7	LAB	23/L	23/L	23/L	95/L
2	HAch	24/M	29/M	29/M	111/M
5	MAch	23/L	32/M	21/H	116/M
6	LAch	23/L	24/L	24/L	94/L
1	HSel	26/M	31/M	28/M	113/M
8	MSel	22/L	27/L	27/L	103/M
9	LSel	24/M	27/L	26/L	101/L

Class 6-E, Teacher Stereotype Accuracy 15/High

23	Total	27/H	32/M	31/H	118/H
11	Girls	27/H	31/M	31/H	118/H
12	Boys	27/H	32/M	31/H	119/H
2	HAb	31/H	35/H	31/H	127/H
11	MAb	27/H	31/M	32/H	119/H
7	LAB	26/M	29/M	29/M	111/M
6	HAch	27/H	32/M	30/M	118/H
6	MAch	25/M	33/H	33/H	121/H
10	LAch	27/H	30/M	30/M	115/M
3	HSel	27/H	30/M	30/M	113/M
9	MSel	30/H	35/H	32/H	128/H
11	LSel	26/M	29/M	30/M	112/M

TABLE VII (continued)

N <sub>c</sub>	Category	Average Scores			
		Emp	Reg	Cong	Total
Class 6-F, Teacher Stereotype Accuracy 26/Low					
24	Total	29/H	30/M	30/M	119/H
9	Girls	30/H	29/M	31/H	120/H
15	Boys	29/H	31/M	30/M	119/H
6	HAb	32/H	36/H	34/H	131/H
6	MAb	27/H	29/M	30/M	115/M
11	LAB	27/H	29/M	27/L	113/M
5	HAch	34/H	34/H	34/H	133/H
4	MAch	29/H	33/H	33/H	102/M
13	LAch	28/H	28/M	28/M	111/M
6	HSel	31/H	31/M	33/H	126/H
13	MSel	28/H	30/L	31/H	119/H
5	LSel	30/H	24/L	27/L	110/M



VITA<sup>3</sup>

Rita Margaret Baird

Candidate for the Degree of

Doctor of Education

Thesis: TEACHER-STUDENT INTERPERSONAL RELATIONSHIPS AND  
STUDENT SELF-CONCEPTS

Major Field: Student Personnel and Guidance

Biographical:

Personal Data: The writer was born in Vinita, Oklahoma, on October 27, 1945, the daughter of Clarence R. and Eva Mae Saunders.

Education: The writer attended grade school in Tahlequah, Oklahoma, and at the Craig County, Oklahoma, rural school of Miles. High school education was received from Vinita High School, Vinita, Oklahoma. After completing requirements for high school graduation in 1963, the writer attended Oklahoma State University transferring in 1965 to Central State College, Edmond, Oklahoma, where the Bachelor of Science degree was received in 1966. In 1968 the writer graduated from Oklahoma State University with the Master of Science degree. Requirements were completed for the Doctor of Education degree from Oklahoma State University in May, 1971.

Professional experience: After completing the Bachelor of Science degree in November, 1966, the writer taught for the remainder of the school term in the Oklahoma City, Oklahoma, public schools. The writer returned to Oklahoma State University in June, 1967, as a graduate fellow.

The writer holds membership in the American Personnel and Guidance Association and the American School Counselor Association