

ASSESSING AND CHANGING THE STUDENT TEACHER AND  
HIS LEARNING ENVIRONMENT WITH STUDENT RATINGS AND  
PEER GROUP COUNSELING SESSIONS

by

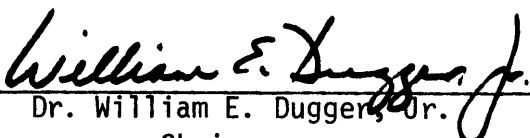
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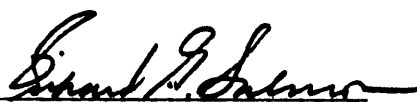
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## CHAPTER I

### Statement and Definition of the Problem

#### Introduction

Growth in education is associated with positive changes in human behavior. Accomplishment of these meaningful changes can efficiently occur through the utilization of a systematic method to reach specific predetermined goals and objectives. Constant implementing of these basic goals is a function of the teacher-learning process.

Much of the teacher's overall evaluation is based on his or her ability to implement the goals of the community, school, curriculum and students, to produce acceptable student behaviors. These outcomes exist in two basic forms: specific knowledge, skill and attitude developed about the learning process. Balance in developing students' ability to contend with each category appears to be a major responsibility of the teacher.

Glass (1974) stated:

"Pupil contributions to the observational-judgemental system could include their reports on the basic human decency that prevails in the classroom. McClellan (1971) reminds us that all teaching is simultaneously a "saying, doing, and making." We must judge what teachers 'do' to children as well as what they 'make' of them. Even if their actions had no visible residual effects on the pupils' adult behavior, teachers' rudeness, bad manners, and ill-tempered repression would be contemptible in themselves." (p. 28).

Effective student evaluations should measure both forms, knowledge and attitude.

Who is to evaluate the outcome of the teaching process? Some system must exist to determine the effectiveness in realizing the degree of overall objectives achievement.

Historically, this responsibility has fallen upon the school administration and more specifically with negotiated contract upon the individual school principal. Rosenshine (1971) stated that rarely is the student or "consumer" of the educational process involved in the evaluation procedure, although research emphasizes the wider the base for evaluation the more likely of its being valid. Aristotle, who wisely surmised that the best judges of a meal are the diners, not the cooks, leads one to believe that inclusion of student evaluation is a valid method to be considered in redirecting educational goals and objectives.

Swartz (1975) surveyed opinions of various groups of evaluators, about 72 trade and industrial teachers, and concluded:

"There are significant differences in the performance evaluation ratings given by school administrators, school division supervisors, teacher-peers, teachers (self-rating) and students. It implies that the emphasis of teaching effectiveness is placed differently by different groups and, thus, ratings from a single group of raters would not reveal a total picture of the teaching effectiveness of an instructor". (p. 66).

Swartz further stated:

"The ratings of school administrators, school division supervisors, and teacher-peers are similar. This result concurs with that of Owens (1971) who concluded that administrators, teachers, and college supervisors perceive most areas of teacher competence similarly. Probably these three groups are familiar with the

teacher's background with regard to such factors as educational level, teaching experience and trade experience, while students may not have this information about the teacher. As a result, students rated differently. In any case, it is suggested that in order to get an adequate picture of an instructor's teaching performance, evaluation must be obtained from several groups who are familiar with his classroom behavior." (p. 67).

McNeil and Popham (1974) indicated the use of student ratings is growing, particularly at the college level. One can assume that this trend will also develop in the secondary schools. Educators' fears that student ratings become popularity contests and are being dispelled by research such as Rayders (1968) which suggests that students' sex, age, and grade point average, and the grade received from the instructor have little relationship to student ratings.

McNeil and Popham (1973) further stated:

"The many uses of student-ratings-instructional improvement, teacher assessment, descriptions of teacher practice make this measure a fruitful one. When one desires day-to-day observation of the teacher's behavior without the presence of outside observers, the use of student accomplices can increase by having students focus on discrete observable behavior." (p. 231).

The student teacher is typically rated on the same behavioral traits as those of an accomplished teacher and in much the same manner. The principal raters have either been administrative supervisors or master teacher personnel. Rarely is there an instance where the pupil is given an opportunity to provide input in a formal manner to the student teacher as to how his behavioral characteristics appear to affect the learning environment. Although

it may be justified that students should not be involved in the evaluation of an accomplished teacher in his obtaining permanent certification, this same analogy should not hold true for the student teaching process. Unlike the accomplished teacher, the student teacher is still assigned to a learning environment and all indicators should be utilized to assist him in discovering his strengths and weaknesses during this exploratory process. The student alone is the one person who consistently is affected by the student teacher and although the student may not have sufficient training to understand all the various aspects of the teaching process, he can indicate to the student teacher how he perceives the learning environment.

Herman (1973) stated:

"On the surface it appears logical to involve the recipients of the educational enterprise in the evaluation of the teachers who are hired to oversee the instructional program at the student level. There are, however, advantages and disadvantages to the involvement of students in the process of teacher evaluation. Traditionally, it is assumed that the disadvantages of student evaluations will increase as the age of the students performing the evaluations decrease. Certainly, it would be wise to at least attempt student evaluation at the senior high level, and if this proves successful, attempt student evaluation at lower age levels." (p. 41).

With this type of an evaluation, the student teacher should be able to take proper steps to adjust his behavioral characteristics and develop competencies which create a positive feeling toward the educational process therefore improving the students' attitudes toward learning.

### Statement of Problem

The purpose of this study is to examine the significant environmental and humanistic factors affecting students' diagnostic ratings of student teachers and to test the effectiveness of utilizing "Peer Group Counseling Sessions" in developing and implementing objectives for student teacher behavioral change based on these diagnostic ratings.

### Significance of Study

Present movement in education stressing competency based instruction provides significance to this study. Weigand (1971) indicates three classifications of external forces determining the value of the learning experience. These external forces can be categorized as (1) conditions necessary for learning, (2) the essential teacher competencies, (3) human interaction and personalizing of the educational process.

He further stated:

"Developing these teacher competencies - knowing intellectual developmental states, formulating performance objectives, developing question asking skills, sequencing instruction, evaluating progress, and developing creativity - is essential if effective instruction is to materialize. But these six competencies are not sufficient by themselves. The teacher must also learn positive behavioral skills so that he or she may engage in human interaction with the students and to a large degree personalize education." (p. 11).

How do we evaluate the teacher's mastery of the necessary competencies including the necessary behavioral skills required for successful teaching? One such study recently conducted and

presented to the American Education Research Association by Noreen Garman (1975) provided a master evaluation system that included interns, master teachers, college supervisors, state supervisors, and others who have served as resources to the interns.

The obvious exclusion of the students from this evaluation process leads one to wonder if the education community lacks the necessary competencies for dealing with student evaluations.

McNeil and Popham (1973) stated:

"An evaluation of a teacher is not equivalent to determining the teacher's instructional competency. Measures of long and short range instructional objectives for a variety of outcomes are very much needed if two key purposes of assessment are to be fulfilled: instructional accountability and improvement." (p. 240).

The significance of this study was that it will attempt to evaluate, through student responses, the degree of student teacher growth when students assist in determining the specific need for improvement in behavioral traits and teacher competencies. Added significance was reflected in the present trend of revising teacher evaluation forms to include ratings of teacher determined goals and objectives in a specific period of time.

#### Limitations of Study

This study has several limitations which should be recognized.

1. The size of the student teacher sample was small. There were a total of 44 teachers involved in this study divided equally into two groups of 22.

2. The geographical area of this study was confined to the state of Virginia. More specifically, three areas of teacher placement were used for the study: (1) Roanoke-Blacksburg area, (2) Richmond area, and (3) the Northern Virginia area.
3. Student population was limited to those junior and senior high students (grades six to twelve) enrolled in industrial arts courses.
4. Student teachers involved in this study were limited to those Virginia Polytechnic Institute and State University industrial arts majors requesting student teaching placement in the fall quarter of 1975 and winter quarter of 1976.
5. The present length of Virginia Polytechnic Institute and State University's student teaching experience was only 12 weeks in length.
6. Counseling sessions were limited to three sessions per teacher in the experimental group.
7. Although extensive research was conducted on the topic, there appeared to be a scarcity of studies involving student ratings of student teachers.

#### Definition of Terms

Assigned Lessons

Those lessons required of the student teacher during his 12 weeks' tenure.

|                       |                                                                                                                                                                   |
|-----------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Control Group         | That group of student teachers receiving no student feedback or counseling other than that regularly performed during the 12 weeks laboratory experience.         |
| Cooperating Teacher   | The teacher who cooperated with the university by guiding, supervising, and evaluating the student teacher on a day-by-day basis.                                 |
| "Counseling" Session  | That period of time provided for peer interaction related to students' diagnostic evaluations.                                                                    |
| Diagnostic Category   | One of the four basic categories for teacher rating, personal traits, professional competencies, student-teacher relationship, classroom management.              |
| Diagnostic Instrument | Forced choice instrument designed to diagnose student feelings in four categories about their student teachers administered four weeks after exposure to him/her. |
| Experimental Group    | That group of student teachers who received student feedback and attending group counseling sessions.                                                             |

|                             |                                                                                                                                                                   |
|-----------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Facilitator                 | Name given to "counselor" researcher during the treatment process of this study.                                                                                  |
| Forced Choice Scale         | That evaluative scale design which requires a priority ranking of specific numbers of items.                                                                      |
| Industrial Arts             | That area of instruction utilizing a laboratory, tools, machines, and processes relating to industry and our technological environment.                           |
| Middle School               | That intermediate grade level indicated by a specific school system as either 6-7-8-9 depending on local districts' arrangements.                                 |
| Purdue Instructor Indicator | Forced choice student rating scale designed to rate teachers on a 24 point system contained in 12 equal sets. Developed at Purdue University, Lafayette, Indiana. |
| Secondary School            | Combination of middle and senior high school.                                                                                                                     |
| Senior High School          | Those secondary grades usually 9-10-11-12 or combination designated by local school district as senior high school.                                               |

|                             |                                                                                                                                                                                                                     |
|-----------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Student                     | An elementary or secondary pupil located in a student teaching center.                                                                                                                                              |
| Student Evaluators          | Those students either middle or senior high school assigned to the experimental group of student teachers to provide student feedback.                                                                              |
| Student Teacher             | A university student who leaves the campus to assume the role of a teacher under the immediate supervision of a cooperating teacher.                                                                                |
| Student Teaching            | A professional laboratory and clinical experience. The student assumes increasing degrees of responsibility in a real classroom under the supervision of a qualified classroom teacher and a university supervisor. |
| Supervisory Personnel       | Cooperating teacher and/or college supervisor.                                                                                                                                                                      |
| Teacher Image Questionnaire | That student rating instrument using a one to five Likert type rating scale. Developed at Western Michigan University.                                                                                              |
| University Supervisor       | A university faculty member who cooperated in assigning, supervising, and evaluating student teachers. Also the university supervisor was responsible for consulting with the cooperating                           |

teachers so that a consistent and coordinated experience was provided for the student teacher.

### Assumptions

The following is a list of assumptions considered to be valid statements in the design and administration of this study:

1. That secondary students could accurately evaluate their industrial arts student teachers.
2. That student teaching was similar to a real teaching atmosphere and that many of the same principles and methods of "good teaching" also apply to the student teacher.
3. That the four diagnostic categories upon which these evaluation instruments were designed encompass all aspects of the teaching environment.
4. That industrial arts teachers were required to perform tasks relating to classroom management which were different from other teachers'.
5. That all industrial arts middle school and senior high environments were capable of evaluating student teachers.
6. That the time element of 12 weeks was sufficient to permit meaningful behavior modification in student teachers.

### Summary

Change and evaluation are two necessary elements in the educational growth process. This study investigated the relationship of these two elements during the course of a 12 week student teaching experience. The method used to create meaningful change will be provided through peer group counseling sessions with the evaluation of the change element performed by secondary students.

This chapter also provided the reader with a list of terms incorporated in the body of this research. These definitions served as a glossary for the reader and were appropriate terms used by the various agencies involved.

Clearly defined limitations and assumptions were provided in Chapter I and these limitations provided the necessary parameters for conducting this research.

## CHAPTER II

### Review of Literature

#### Introduction

A review of related research was conducted as a preliminary study procedure. Relatively few studies have been conducted on the secondary level utilizing student feedback or ratings. Although volumes exist on teacher rating systems and scales, only a few relate to the specific problem under study. The review of the literature was conducted under seven major headings:

1. Brief Historical Review of Teacher Evaluations
2. Teacher Behavior
3. Teacher Effectiveness
4. Student Evaluations of Teachers
5. Student Rating Instruments
6. Experimental Dissertations Utilizing Student Feedback
7. Group Counseling

#### Historical Development of Teacher Evaluation

Current methods of evaluating teacher competency in the public school system have evolved from practices of many years ago and have been related to certain movements in government, industry and early psychological research. Early teacher evaluation appears to have been the responsibility of the division superintendent as part of his supervisory role. The superintendent or supervisor serve more as an inspector rather than a helper in evaluation process and usually worked in

partnership with the principal. The development of a more formal evaluation system appears to have started during the late 19th century. A movement swept this country which was aimed at efficiency known as the Scientific Management Movement. The initial pioneer in this movement was Frederick Winslow Taylor (1911) of Bethlehem Steel. His writings emphasize standardization, systematization, and stimulation. As a result of this efficiency movement in industry, school surveys began to appear with emphasis on testing efficiency. These standardization tests emphasize school subject matter such as arithmetic, handwriting and others with little interest in individual tests of teacher efficiency.

Initial interest in the worker's efficiency began with industry oriented time-motion studies. This type of rating system eventually led to merit rating and the merit rating sheets developed for sales people at Lord and Taylor (1911) set precedent for this new era.

Teacher evaluation in the public schools began with such devices as the Milwaukee form used in 1896 which consisted of a long list of classified traits (Adams, 1919). Individuals such as E. C. Elliot of the University of Wisconsin also introduced merit measurements for teachers at this early era.

Boyce (1915) developed a landmark report on teacher ratings in the public school system. This document was a survey for the National Society for the Study of Education and highly emphasized efficiency. Inquiries were sent to 350 school

systems with populations of 10,000. The results showed that 14 systems used promotional examinations, 133 used judging schedules, 99 utilized efficiency grades, and 98 used uncontrolled judgments. He also identified four types of analysis: (1) Descriptive reports dealing with specific points; (2) Lists of questions to be answered by yes or no; (3) Lists of items to be evaluated by a stated classification, for example, excellent, good, medium, unsatisfactory; and (4) Lists of items to each of which was assigned numerical value.

Individuals such as King, Monroe, and Clark, and Reavis and Cooper in 1945 analyzed teacher rating systems of school divisions Biddle (1964). Reavis and Cooper's study devoted much of its emphasis to the various terms used in these reports and found certain weaknesses were apparent; such as lack of definition, ambiguous terms and items that linked two independent elements for a single judgment. The National Education Association Research Division, from the years 1923 to 1962, did extensive research in the field of teacher evaluation. In 1956, a study by the National Education Association Research Division indicated that in 37% of the school districts the principal was the only teacher rater (NEA Research Division, 1956, pp. 28-29). Joint ratings of teachers appeared in 27% of all school divisions. In 1962, 24% of those school systems reported to the NEA used no formal rating system or scale. Even at this late date formal judgment for selecting superior teachers appear to be the main mode of teacher evaluation. The process of evaluation throughout the years has evolved from one of determining deficiencies in teachers to a process of the evaluation of

teacher techniques and the utilization of this evaluation in making contributions toward better teaching.

Present movements have included the teacher in determining the objectives that he or she is trying to maintain and to evaluate the teacher as to meeting these objectives rather than some superficial idea of what good teaching is about.

Herman (1973) emphasized the need to develop a scheme for teacher evaluation in that of devoting large amounts of time with all individuals to be evaluated or individuals who are to evaluate in dialoging the goals to be achieved. The responsibility of all employees must be geared to a maximum positive educational environment for children and youth . . . . Each teacher has his own style of work, his own unique capabilities and his own strengths and weaknesses. District objectives, building level objectives and individual teacher's objectives once clearly stated allow for this individuality and provide the basis for evaluation of an individual teacher or group of teachers.

Herman further stated that all evaluation programs must assist the individual teacher in providing a high quality education for his students by continually improving the achievement towards the valid objectives of the district, building subject area, grade level and the individual teacher and his students.

House (1973) classified present evaluation efforts as meeting two objectives: (1) Summative evaluation to report to external audiences on the effectiveness and nature of the program. He also contends this evaluation is best done by external evaluators.

(2) Formative evaluation is intended to improve the program itself.

He also emphasizes the importance when dealing with teachers to distinguish between the two.

### Teacher Behavior

Early systematic study of teacher behavior was conducted by Anderson, 1939. His work, based on observations of teacher behavior, stimulated many other types of individuals to continue this line of experimentation with teacher behavior. Examples of this include Lippitt and White, 1943, and Whital and Cogan, 1956. Recent studies include Flanders, 1965, and Ellena and Ryans, 1969. Many of these authors have argued that the environment and teacher behavior conglomerate affect the learning perception of what is transpiring in the classroom.

The following is an example listing of the teacher behavior evaluated by elementary students in a study done by Lepard (1971).

- |                     |                             |
|---------------------|-----------------------------|
| 1. Likes to teach   | 6. Explaining things        |
| 2. Helpfulness      | 7. Sense of humor           |
| 3. Friendliness     | 8. Habits                   |
| 4. Fairness         | 9. Looks                    |
| 5. Listens to ideas | 10. Creates fun in learning |

This study attempts to utilize students in evaluating teacher behavior and how their behavior affects the learning environment.

If a classroom instrument is to be utilized to evaluate teacher behavior, Ryans (1964) concluded that the reliability and validity of assessment can be greatly enhanced by the utilization of the following techniques:

1. A limited number of relevant behavioral dimensions for observation and assessment.
  2. The provision of specific and unequivocal operational definitions of the characteristics to be assessed.
  3. Insuring that the observer was well acquainted with the behavior.
  4. Focusing of observer's attention on the specified behavior or characteristics to be assessed.
  5. Immediate assessment of the behavior after observation.
  6. The independent assessment of each specified behavior.
  7. Suppression of personal biases.
  8. Elimination of central tendency error or leniency error.
  9. Replication of observations and assessments by independent though similarly trained individuals.
- (p. 75).

The Standards of Quality and Objectives for the Public Schools of Virginia (1974) have itemized six basic topics for evaluating teacher behavior. They are:

1. The teacher should provide for the humanizing of instruction in the classroom.
2. The teacher should provide for individual differences in the classroom.

3. The teacher is responsible for providing efficient instructional materials to motivate students.
4. The teacher should provide favorable psychological environment for learning.
5. The teacher should organize learning activities to achieve specific objectives.
6. The teacher should evaluate the progress of students.

The characteristics of teacher behavior, as identified by Lepard, appear to have some effect on the ability of teachers to meet the educational objectives such as the Virginia Standards of Quality.

Individuals such as W. James Popham (1974) in evaluating education have indicated that continual research needs to be done in the process of evaluating teacher behavior and its effect on the students' learning.

### Teacher Effectiveness

Teacher effectiveness and teacher behavior are very closely related. The evaluation of teacher effectiveness has been categorized by Glass (1974) into three basic segments:

1. Standardized testing of students.
2. Controlled, simulated assessment of teachers' impact on pupil performance.
3. Observation and rating of teacher behavior and students' evaluation of teacher performance.

Standardized tests to rate individual student achievement have long been criticized by contemporary educators even though

many recent studies have attempted to use student residual gain scores. Glass comments that nothing short of random assignment of pupils to a teacher as an ironclad administrative necessity would ensure that the teachers were in a fair race to produce pupil gains. Some research indicates that standardized tests are effective in uncovering gross educational deficiencies related to educational skills but their instruments do not determine whether the teaching process was meaningful to the students involved. Walberg (1974) commented on W. James Popham and John D. McNeil's pioneered studies of teacher effectiveness by means of direct measurement of teacher impact on pupil behavior (knowledge, skills, and attitudes). In this study random groups were established for each school. Teachers were given unfamiliar data, they were then requested to present data and the pupils were evaluated as to their gain.

The Popham-McNeil-Millman method (PMM) of appraising teachers was indicated as being objective whereas other methods such as rating scales were classified as subjective. Although student knowledge is an important aspect of the learning process, other real things in education such as changing children's behavior, permitting children to grow in interesting environments, and simple custodial care are real things which affect the overall real learning process.

Although the PMM method did show some validity in evaluating teacher effectiveness, in order for it to be of greater reliability this method must be able to accomplish the same results across many varied and different teaching topics, teaching groups and teaching

methods.

Walberg (1974) summarized Rosenshine's compiled results of efficiency studies on the results of teacher effectiveness. One such study done by Justiz on student teachers teaching specific lessons for fifteen minutes each and rating the pupils' gain showed a Spearman rank-order correlation of .64 rating of the data. Review of this study indicated that the samples were relatively formal and that more study in the area of student teacher effectiveness would have to be conducted to validate the conclusion that Justiz reached.

Walberg (1974) further analyzed Connor who did extensive studies in 1969 on teacher effectiveness. The study attempted to determine the stability of teacher effectiveness between years and subjects. His results showed insignificant scores to indicate significance across subtopics and between years.

Other studies considered by Walberg (1974), such as the PMM study in which three types of individuals were assigned to teach subjects, showed that trained, experienced teachers are not any more successful than vocational and lay teachers in bringing about specific behavioral changes in learning subject matter.

Walberg further contended that observational-judgmental systems usually have three main topics:

1. Trained observers
2. Students' evaluation of teachers
3. Collateral data

Many past failures in this area are attributed to vague, general definitions of behavior and lack of rater training. Rosenshine

(1973) justified the following areas of teacher effectiveness to be rated:

1. Clarity of presentations and explanations.
2. Enthusiasm.
3. Variety in use of instructional materials and techniques.
4. Task orientation.
5. Business-like behavior.
6. Provision of ample learning opportunities.

Walberg and Anderson, 1968, worked on a learning environment inventory filled out by students. It gives class mean scores on 14 factor analytically derived dimensions of learning environment. Some of these names are intimacy, friction, satisfaction, difficulty and apathy.

A third point on the observational-judgment system is brought out by McClellan (1971) when he indicated that what we do to children is as important as what we make of them. Glass (1974) makes the following statement, "If two independent observers looking at adequate samples of teachers' performance can't agree on their judgments of teachers' use of appropriate illustrations, then work needs to be done with the judges, the rating scales, the methods of sampling teacher effectiveness, or all three."

The outlook for process-product research in teacher effectiveness has improved; but research indicates very little stability between different years of teacher's teaching career. Additional research is needed to better determine what aspects of

teacher behavior or the environment, such as leadership within the class, sizes of the classroom, and types of lessons affect changes in teacher effectiveness from one year to another.

### Student Evaluations

Although some resistance still exists, students' ratings of teachers in secondary schools is on a continual increase and slowly becoming more visible at the elementary level. In July, 1973, Educational Research Services (ERS) found that nearly 24% of the 468 districts responding to a questionnaire on selected school practices reported some form of student evaluation of teachers. The NEA study in 1970 turned up only five districts in which student evaluations were utilized. The ERS later reported that student evaluation of teachers was the most widely used client-performed evaluation. One type of client-performed evaluation usually lead to other forms such as teacher evaluating principal or supervisors and principal evaluating central office staff. The literature about student ratings is growing and laws such as California's Stull Act stressing student achievement tend to encourage the practice.

Stemnock (1969) conducted a survey of 213 high school districts, with no use of student data mentioned. The author conducted a survey of present evaluation instruments used in the state of Virginia. Of the 47 respondents, only one school division showed some form of student evaluation. In a similar survey of 33 colleges in the Eastern U.S.A. offering industrial arts teacher education programs, not a single college program solicited formal student reactions as

a means of assisting student teachers to diagnose or rate their strengths and weaknesses.

John A. Centra (1974) of the Educational Testing Service, commenting in the National School Public Relations Association's Special Report said, "Students ratings are typically skewed in a positive direction." He also characterized ratings as "no less trustworthy than other methods now available to assess teacher behavior and when combined with other methods, they probably contribute to a fair judgment." He concluded, "Well-designed student ratings programs can do more to benefit than to harm the academic community." (p. 23).

Teachers below the college level seem divided equally as to accepting student evaluations. NEA Research Division, in 1971, conducted a survey in which 38% tended to favor student evaluation, whereas 31.9% tended to oppose it, many other teachers had no definite feelings.

Why should students evaluate? Some answers to this question are contained in a report on Teacher Evaluation to Improve Learning by the Ohio Commission on Public School Personnel Policies (March, 1972). Research indicates that informational feedback from students is an effective means of influencing teacher behavior and, in fact, student feedback can sometimes be more effective in changing teacher behavior than supervisory feedback.

Dalton (1971) concluded, "that pupil selection of teachers is inevitable. Whether we defend or condemn such evaluation, it is and always has been part of the real world of teaching." (p. 476).

Bryan (1959) contended that student-reaction reports help

teachers to: (1) Determine the degree to which desirable characteristics exist; (2) Discover unsuspected weaknesses and strengths; (3) Maintain good public relations; (4) Discover gaps between theory and practice; (5) Get proper balance in emphasis on competing factors in the teaching situation; and (6) Get recognition for excellent teaching.

Dalton's (1971) research found significance at the .01 level in the following two areas: (1) The ability and the will to achieve scholastically have a close relationship to a teacher's effectiveness with young adolescents in the classroom. A high academic record is not a guarantee of effectiveness, but in the absence of other information the undergraduate average would serve at least as a fair predictor of success. (2) Teachers rated effective had taken twice as many hours as had teachers rated ineffective in courses designed to equip them with methods and tools of instruction.

Mazoo Project, Kalamazoo, Michigan, evaluates teachers utilizing computerized forms on how well teachers and their students perform. "The utilization of student evaluation to the overall evaluation of a teacher does add some validity." admits Robert Sikenga, President of the local teachers association. But he contended that each single factor taken still has a great invalidity. The Mazoo Project Director, Chuck Townsend, stated:

"You can compare for example students' opinions of teacher with student achievement. Suppose a teacher has a whole class of rowdies one semester and teacher feels the need to be fairly strict. Student opinion of the teacher probably won't read well. But if student achievement is up, then maybe

the teacher's technique is a good thing...never before have teachers had this sort of useful feedback concerning the effectiveness of student reaction to their teaching techniques."

The Mazoo Project Student Opinion Questionnaire is developed for all grade levels K through 12 and is currently administered once a year.

Stiles (1973) reacted to rating instruments stating:

"What teachers need is a scale which accurately and consistently ranks the students' opinions and responses to her teaching in areas both considered vital. To produce such a scale, research must become concerned with teaching techniques, teacher-student relationships and areas of course content that students think are vital."

Buser, Stuck, Casey (1974) study of students' responses of 500 low and high achieving students in grades 9 to 12 in a variety of states reported some differences in teacher characteristics rating when ranked by high and low achieving students. Teacher behaviors also exhibited some degree of difference in rank order by high and low achievers. This study would tend to support Stiles' conclusion that rating instruments should consider outcomes and objectives as well as other more universal teacher characteristics.

Herman (1973) summarized the advantages and disadvantages of students as follows:

Advantages of student evaluations:

1. The user (student) is best able to evaluate the giver (teacher).
2. Students are in daily contact with a number of teachers and, therefore, have the best basis

upon which to make a comparative judgment of teacher production.

3. The number of evaluators is greatly increased and the evaluation becomes broader in scope. Also, the biased evaluations can quickly be discarded, and a large number of evaluations will remain.
4. This method would not add any dollar cost to the process.

Disadvantages of student evaluations:

1. Students may tend to provide low evaluations for the strict teacher, the teacher who gives a great deal of work, the teacher who is a low marker or the teacher of a subject that is mandatory and considered boring by the majority of students.
2. Students are too immature to evaluate teacher performance.
3. A student may influence other students to rate a teacher poorly because he has a particular axe to grind with the teacher being evaluated. Youngsters sometimes have cliques and a single student's dislike for a teacher might cause an overall negative bias to be present in the evaluations.

(pp. 41-42).

He concluded that:

"The writer does not personally subscribe to the thoughts presented in the disadvantages listed. Should the local district's evaluation committee

have such concerns, student evaluations could be tried on a pilot basis and a final decision made on the basis of the results. In fact, a pilot feasibility study is always a good approach when doubt exists as to the inclusion of any category of evaluator within the overall evaluative scheme."

### Teacher Rating Scales - Students

Classroom observational instruments exist in abundance. Over 92 observational systems are contained in the anthology, Mirrors for Behavior, (Simon and Boyer, 1967, 1970). Although no known number of forms for observing teachers exists, a conservative estimate of the number of rating instruments would be in the hundreds. The number of student rating forms on the college level have steadily increased since the survey conducted in 1966 by the American Council of Education. The safest generalization to be made about these forms is that they are diverse. (Rosenshine and Furst, 1973).

Rosenshine and Furst contended:

Four classifications were developed to group the instruments according to the source of the variables which the authors selected:

1. Instruments with explicit theoretical or empirical base contain variables derived from specified, established theory or research, such as the work of Dewey, Menninger, Neal Miller, Piaget or Sullivan.
2. Instruments with implicit theoretical or empirical base contain variables the author claimed to have derived from empirical research, such as learning

theory or research in group dynamics. The author did not specify the research base.

3. Modifications or syntheses of existing category systems are instruments created from previously developed classroom observation instruments, such as those by Flanders, B.O. Smith or Taba.
4. Author-originated category systems contain variables the author believed to be important in classroom interaction. The author did not specify the origin of these variables. (p. 138).

The Rosenshine and Furst (1973) review also included four classifications to summarize the purpose of the authors' instruments in Mirrors. These four purposes are:

|                                            | <u>Number</u>      |
|--------------------------------------------|--------------------|
| 1. To describe teaching                    | 36 systems         |
| 2. To train teachers                       | 11 systems         |
| 3. To monitor instruction                  | 16 systems         |
| 4. To relate instruction to student growth | 7 systems (p. 159) |

Considering the large volume of Mirrors of Behavior available, continued research efforts would be better spent in implementing and refining devices in experimental situations and forwarding this to a central data bank for review and categorization.

Evaluation instruments reviewed for consideration in this study utilized either a Likert type scale or a forced choice system. Each student evaluation scale was classified as to its ability to diagnose or rate teacher behaviors.

The Diagnostic Teacher-Rating Scale developed by Sister Mary Amatora consisted of the following seven broad behaviors:

- I. How well do you like your teacher?
- II. How clear can your teacher explain things?
- III. How friendly and understanding is your teacher?
- IV. How fair is your teacher in grading?
- V. How well does your teacher keep order with the children?
- VI. Does your teacher give children right amount of work to do?
- VII. How well do you like the lessons taught by this teacher?

Students were requested to rate the teacher on a one to five scale and total mean scores were calculated to determine an overall teacher rating. Each behavior rated was accomplished with a check list to assist the teacher in determining strengths and weaknesses as invisioned by individual students. An example of Behavior I check list included:

I. LIKING THE TEACHER

- \_\_\_\_\_ 1. Is the one I like best.
- \_\_\_\_\_ 2. Is humorous at times.
- \_\_\_\_\_ 3. Keeps everything in the room neat.
- \_\_\_\_\_ 4. Is pretty.
- \_\_\_\_\_ 5. Is not polite.
- \_\_\_\_\_ 6. Always wears a frown.
- \_\_\_\_\_ 7. Is too grouchy.

The student was requested to place a plus sign (+) in the proper space at the left which best described their teacher.

The Purdue Teacher Evaluation Scale developed by Ralph R. Bentley and Allan C. Starry provides students an opportunity to express their feelings about their teacher's classroom behavior. Consisting of sixty items this scale requested the students to rate their teacher with a four part Likert scale containing the following four statements:

- (1) Very much like my teacher (L)
- (2) Somewhat like my teacher (SL)
- (3) Somewhat unlike my teacher (SU)
- (4) Very much unlike my teacher (U)

These sixty items reflect six overall teaching behaviors:

- (1) Ability to motivate students
- (2) Subject matter orientation of teacher
- (3) Ability to control students
- (4) Student-teacher communication
- (5) Teaching methods and procedures
- (6) Fairness of teacher

Percentile ratings were available enabling the teacher to compare his rating with other teachers on a specific item.

One of the most widely used models for teacher rating scales development is the Purdue Rating Scale for Instruction. A present format of the scale is a modified version developed by H.H. Remmers and D.N. Elliott. This instrument contains two parts. Part A: The original Purdue Rating Scale for

Instructors, first standardized in 1927.

1. Interest in Subject
2. Sympathetic Attitude toward Students
3. Fairness in Grading
4. Liberal and Progressive Attitude
5. Presentation of Subject Matter
6. Sense of Proportion and Humor
7. Self-reliance and Confidence
8. Personal Peculiarities
9. Personal Appearance
10. Stimulating Intellectual Curiosity

These items have been the basis for many additional teacher evaluation documents. Remmers and Elliott search of the literature verified their supposition that other features of the teaching-learning situation exerted considerable influence on effectiveness of the learning situation. Through continual research sixteen additions were added to the original ten items providing a more overall comprehensive scale in two parts. In both parts a five point Likert type scale is used with:

- A = Excellent
- B = Above Average
- C = Average
- D = Below Average
- E = Extremely Poor

The Educational Feedback Center, Western Michigan University, prepared a sixteen part computerized scale for teaching rate.

Called the Teacher-Image Questionnaire, it contains the following 16 behaviors and rates each item with a five part Likert scale.

1. Knowledge of Subject
2. Clarity of Presentation
3. Fairness
4. Control
5. Attitude toward Students
6. Success in Stimulating Interest
7. Enthusiasm
8. Attitude toward Student Ideas
9. Encouragement of Student Participation
10. Sense of Humor
11. Assignments
12. Appearance
13. Openness
14. Self-Control
15. Consideration of Others
16. Effectiveness

Additional open minded comments are solicited by the instrument denoting strengths and weaknesses of the teacher being rated. A revised version of this instrument will be utilized in this study.

Dr. Russell M. Eidsmoe developed a nine point Likert scale for teacher self-improvement. The scale consisted of the following seventeen behaviors:

1. Organization of Course

2. Preparation for each Class
3. Teaching Skill
4. Enthusiasm and Interest in Course
5. Assignments
6. Judgment of Values
7. Class Discussion and Questions
8. Poise and Self-confidence
9. Examinations
10. Scholarship
11. Ability to Create Student Interest
12. Classroom Management and Discipline
13. Speech
14. Tolerance
15. Sense of Humor
16. Personal Appearance
17. Relationship Between Students and Instructor

Each of the nine points of the Likert scale is accompanied by an explanation to assist the evaluator in categorizing the teacher on a specific behavior. The following is an example of Item #1:

|                        |                                            |   |   |                                         |   |   |                                           |   |   |
|------------------------|--------------------------------------------|---|---|-----------------------------------------|---|---|-------------------------------------------|---|---|
| Organization of Course | 1                                          | 2 | 3 | 4                                       | 5 | 6 | 7                                         | 8 | 9 |
|                        | Well organized; shows thoughtful planning. |   |   | Some organization but not always clear. |   |   | Lacks organization; planning seems vague. |   |   |

The Illinois Rating of teacher effectiveness developed by B. Everard Blanchard for teacher evaluation of teacher competency, "or teacher effectiveness" provides the teacher with a self profile in the following categories:

1. Personal Appearance of Teacher
2. Teacher's Ability to Explain the Lessons
3. Teacher's Friendliness in the Classroom
4. Fairness in Grading the Students
5. Discipline in the Classroom
6. Outside Work Assigned to Students
7. Teacher Enjoys Teaching Students
8. Voice of the Teacher
9. Mannerisms of Teacher
10. Teacher's Knowledge of the Subject He (She) is Teaching

The uniqueness of this evaluation instrument is that each of the statements relating to one of the ten major categories has weighted point value. The following is an example of Behavior trait #1, Appearance, and its associated point values for each statement.

- |                                                             |             |
|-------------------------------------------------------------|-------------|
| 1. Personal appearance of teacher is . . . . .              | Point Value |
| Sometimes "overdressed" . . . . .                           | 4           |
| Always neatly dressed . . . . .                             | 10          |
| Needs considerable improvement . . . . .                    | 1           |
| Usually neatly dressed . . . . .                            | 7           |
| How can this teacher improve his (her) personal appearance? |             |
| A. _____                                                    |             |
| B. _____                                                    |             |
| C. _____                                                    |             |

The 1400 experts determined numeral values appropriate for

each individual trait level. To be included in the IRTE, a trait level required acceptance by 65% or more by each of the three groups of experts. The student is free to mark as many of the items in each trait that he believes exemplifies his teacher. Total point values for an individual trait is determined by summing the marked statements. A profile chart is provided to rank the teacher's overall performance and specific individual trait performance as viewed by students.

Cosgrove (1959) developed a unique variation to the forced-choice approach in designing teacher rating scales. After completing a factor analysis of teacher behaviors, four specific categories were identified:

- A. Adequacy of plan and procedures in class.
- B. Knowledge and organization with students in class.
- C. Adequacy of relations with students in class.
- D. Enthusiasm in working with students.

The rating scale was designed with ten sets of four factors each. Each of the sets contained a total of four, one factor relating to each of the major categories. The phrases in each set are to be ranked from one to four by the student to indicate how well they apply to his teacher. The score on each factor is obtained by summing across sets. Cosgrove's scale yielded diagnostic data about an individual teacher's strength within a factor and not about the teacher's standing relative to other teachers. Cosgrove formed the pool of his ratings from 900 descriptive phrases assembled by Wherry (1950).

The following is an example of Set A and its associated categories:

Set A

B Always on time for class

A Pleasant in class

D Very sincere when talking with students

C Well-read

The student teacher diagnostic questionnaire administered during the treatment phase of this study was patterned after the Cosgrove forced-choice model.

The Purdue Instructor Performance Indicator developed by J. H. Snedeker and H. H. Remmers is a forced-choice rating instrument. This scale consists of 12 groups or blocks containing four statements each. Each statement is a positive descriptive of teachers and their teaching behavior or activities. The following is an example of one set of behaviors:

- |                                                        | A | B | C | D |
|--------------------------------------------------------|---|---|---|---|
| 1A Shows Personal Interest in Students' Work           |   |   |   |   |
| 1B Likes and Understands Students                      |   |   |   |   |
| 1C Doesn't Make Fun of Students' Response to Questions |   |   |   |   |
| 1D Has Help Sessions                                   |   |   |   |   |

From each group or block of four statements the student is requested to choose two statements which best describe or apply to the instructor being rated. A total of 24 points can be obtained if the students select those behaviors judged as most significant to good teachers. Computerized forms are

available for easy scoring.

Jane S. Shaw, the Nation Schools Correspondent, Chicago, indicated that one major stumbling block to initiating evaluations, especially the "home grown" kind, is the task of tabulating forms. She further cautioned that teachers should not skim through student evaluations to obtain only superficial ideas of student reactions. Based on these recommendations, this study will utilize revised "tested" student evaluation forms and a computerized scoring system.

#### Experimental Dissertation Review

Littlefield (1971) conducted an experimental research utilizing 42 student teachers from State University College at New Platty, New York, in the areas of English, social studies, math, and science and grades 7 - 12. Littlefield attempted to determine if mediated student feedback would provide significantly higher student teacher evaluations than nonmediated feedback. He established three groups of student teachers; (1) those who received only student feedback, (2) those who received only superior feedback, and, (3) those who received both superior and student feedback. His study further analyzed the differences between two groups of teachers: Group A: English, social studies; Group B: math and science.

Littlefield's evaluation instrument was a self-designed document dealing with two areas adapted from Flanders Interaction Analysis: (1) praise and encouragement; and, (2) acceptance of students' ideas. The evaluation instrument was administered every

two weeks for an eight week period. Littlefield's Design Model, a  $2 \times 3 \times 4$  analysis of variance, provided a small N of only seven which attributed to his difficulty in obtaining significance.

One area providing significant F ratio was the ability of student teachers to utilize pupils' ideas in their lessons. The difference between the first administration's mean and that of the last was significant at the .01 level.

In all cases findings indicated no significant difference in the means of student ratings even when studied by subject matter types of English, social studies, math and science.

Reflecting on questions raised by his study, Littlefield made the following observations:

1. It would seem advantageous in future inquiries to make an attempt to standardize, and, hence, control some of the relevant cooperating teacher variables.
2. Replication of the study should include a larger cell size.
3. Since some students were irritated by being required to respond to the identical form over four administrations, what would be the effect of continuously overlapping form?
4. There were many other domains which pupil feedback could have influenced, such as pupil perceptions of like-dislike, fair-unfair, warm-cold, and accepting-rejecting.

Littlefield finally stated:

"Finally, in future research directed along these lines, a more extensive introduction to experimentation must be given by the student-teachers to their pupils. Although there was no evidence of general disenchantment with the experiment, there was enough to question the validity of an occasional response." ( p. 57).

Hidelbaugh (1973) attempted to develop a rating system for teacher improvement at the local school level utilizing a broad base of expertises. His review of the literature indicated the primary base for teacher evaluation was usually vested in one administrative person, in most cases the principal. The school population selected for this study consisted of grades K through 12 of the Naperville School District located in a Chicago Suburban area. Sixty-nine teachers from this district agreed to participate in the research project.

A pilot study was conducted to determine which of the 146 items, selected from a review of the literature, produced meaningful and reliable descriptions of teacher performance. An analysis was conducted of how students, peer teachers, and administrators responded to each item. Statistical calculation of an analysis of variance was computed in determining which items would discriminate between groups. Final analysis determined that 93 items were both appropriate and suitably discriminating for use in a teacher performance evaluation instrument.

Further grouping of items provided a scale consisting of 30 items considered for incorporation in the final teacher

evaluation instrument. These 30 items were committed to seven categories and are listed in rank order:

|                                                                            | Mean |
|----------------------------------------------------------------------------|------|
| I. Committed to assist in growth of students.                              | 19.6 |
| II. Likes people-interpersonal regard.                                     | 17.5 |
| III. Sensitive to pupils' needs                                            | 16.8 |
| IV. Keeps course objectives in sight                                       | 14.6 |
| V. Helps synthesize individual learning<br>with total learning experience. | 12.3 |
| VI. Strong sense of direction but has value<br>of propriety.               | 10.2 |
| VII. Positive school-community relations.                                  | 9.0  |

Teachers, peers and students determined which of the items were the most important in each category. The items comprised the final evaluation instrument.

A correlation study of appraisals by students, peers, administrators, and secondary teachers was conducted to determine similarities of ratings by these groups. The seven basic items served as the basis for this correlation study. Findings indicated that administrators correlated more closely with peer teachers than students. Other findings also indicated that peer teachers and administrators tend to rank teachers higher than do students.

Since this researcher had to use only volunteer teachers one must ask if the weaker teacher refused to be evaluated? Hidelbaugh stated:

"Considerable research has shown consistent results

in regard to ratings of teachers obtained from four types of raters. The four types are: self-ratings, ratings by peers, ratings by students, and ratings by administrators. Self-ratings have tended to be of little value because the strong teacher under-rates himself while the weak teacher overrates himself. Peer ratings have not proven very successful because of the little opportunity provided the typical peer teacher to observe the work of the teacher being rated. Research has shown that administrative ratings often tend to be based on factors other than those related to instructional competence. Considerable research, on the other hand, consistently shows that student ratings of teachers are more valid and reliable." (p. 90).

Hidelbaugh further stated:

"In summation, a teacher evaluation system should be based on a school district's philosophy of improved teacher performance by evaluation. A teacher performance evaluation system which includes self-evaluation, peer-evaluation, student ratings of their teachers, and administrative evaluation would provide for the necessary essentials of a viable system: teacher involvement, multiple raters and open communication between raters and the teacher." (p. 97).

Kvidhal (1970) conducted a study relating to teacher self-evaluations and how they compare to students' ratings. Efforts were also made to determine if significant differences existed between sexes in rating teachers. The rating by sexes question was examined from both the student and teacher viewpoints.

The geographical area for this study consisted of the midwest, specifically three states: Nebraska, Iowa and South Dakota. The schools selected were limited to those having populations between 104 students to 274 students. Three schools from each state were randomly chosen from the final listing with a total teacher population consisting of 46 teachers; 29 males

and 17 females.

Kvidhal revised a two part teacher rating form developed by Hasson (1967). The scale consisted of the following ten traits:

1. Sense of Humor
2. Knowledge of Subject
3. Fairness
4. Personal Appearance
5. Voice
6. Ability to Get Student Interest
7. Explanations of Assignments
8. Discipline and Class Control
9. Self-control
10. Interest in Students and liking for them

Four specific areas from the rating form were arbitrarily selected because of interest to the investigator. These four were:

1. Knowledge of Subject
2. Ability to Get Student Interest
3. Discipline and Class Control
4. Interest in Students and liking for them

Kvidhal's study showed no significant difference between students' ratings and teacher self-evaluations in the areas of: (1) Knowledge of Subject; (2) Ability to Get Students Interested; (3) Discipline and Class Control. However, in "Interest in Students and Liking for Them", teachers' self-evaluation means of 4.369 was significantly higher than students' estimation of their teachers in this area. The student mean score of 3.863

was significant at the .01 level when a t test was performed.

Male students also significantly rated their male teachers higher than female teachers. Female students did not show significant differences when sex was considered. Other conclusions produced by Kvidhal's study were:

- (1) Female students tend to rate all teachers significantly higher in knowledge of the subject than teachers rate themselves.
- (2) Female students' composite ratings of female teachers generally tend to agree with their composite evaluation of male teachers.
- (3) Male teachers' self-evaluations do not differ from female teachers' self-evaluations either in composite evaluations or in the selected rating areas.
- (4) Teachers and students tend to agree that the most important trait (of the ten traits considered) in effective teaching is "Knowledge of the Subject". Both groups tend to agree that the least important trait (of the ten traits considered) in effective teaching is "Personal Appearance." (p. 43).

Schroeder (1969) attempted to determine if students who have cognitive styles similar to that of their teacher will rate the teacher higher in "effectiveness" on teacher evaluation instruments than will those students whose styles are disjunct to the style of the teacher.

One teacher was selected by the researcher and extensive categorization of her cognitive style was conducted. Peer groups assisted in determination of this mode. The teacher, considered one of the best in this school, was a 9th grade English teacher with a Masters Degree.

One-hundred and eighteen individual student styles were mapped in the same fashion as the selected teacher. Individual student styles were examined to determine if they were similar or disjunct to the "style" of the teacher. Student styles were categorized through the utilization of many standardized tests performances from grades K to 9. Even though all students had different testing patterns the author felt sufficient data were available to determine the students' styles of learning.

In summarizing her findings Schroeder concluded:

"It is a conclusion of this study that students having cognitive styles empirically "mapped" and appraised to be "similar" to that of the teacher do, to a significant degree, evaluate the teacher as being more "effective" than do those students possessing a cognitive style empirically "mapped" and appraised to be "disjunct" to that of the teacher." (p. 86).

Her study further concluded that:

"Students having cognitive styles empirically "mapped" and appraised to be similar to that of the teacher do, to a significant degree, receive higher grades in the type of English class employed in the study than do those students possessing a cognitive style empirically "mapped" and appraised to be disjunct to that of the teacher." (p. 87).

Student Evaluation Forms consisted of the following ten teacher behavioral traits:

1. The Knowledge this Teacher has of the Subject Taught?
2. The Ability of this Teacher to Explain Clearly?
3. This Teacher's Fairness in Dealing with Students?
4. The Ability of this Teacher to Maintain Good Discipline?
5. The Sympathetic Understanding Shown by this Teacher?
6. The Amount You Are Learning in this Class?
7. The Ability this Teacher has to make Classes Lively and Interesting?
8. The Ability of this Teacher to get Things Done in an Efficient and Business-like Manner?
9. The Value this Subject has for You?
10. The General (All-Round) Teaching Ability of this Teacher?

One outcome of this study recommends that students be given information about own individual cognitive styles so that they can modify their own behavior to achieve greater personal success in schools given such knowledge and assistance.

Bartel's (1970) study attempted to improve instruction by changing the teacher's image as perceived by the students. The instrument utilized to obtain necessary student feedback was a sixteen item questionnaire developed at Western Michigan University that measures teacher behavior on a five point scale, ranging from poor (1.0) to excellent (5.0). The following are the sixteen items considered:

1. Knowledge of Subject
2. Clarity of Presentation
3. Fairness
4. Control
5. Attitude toward Students
6. Success in Stimulating Interest
7. Enthusiasm
8. Attitude toward Students' Ideas
9. Encouragement of Student Participation
10. Sense of Humor
11. Assignments
12. Appearance
13. Openness
14. Self-control
15. Consideration of Others
16. Effectiveness

The sample used for this study consisted of 42 secondary school teachers, grades 7 to 12, in a West St. Paul, Minnesota, school district. The teachers were randomly assigned to these treatment groups: a control group and two experimental groups. Class selection was accomplished by throwing a die. The number that came up was the class selected to complete the teacher image questionnaire.

Bartel hypothesized that no significant difference would occur in student ratings of experienced and new teachers. He further concluded that teachers who received student feedback

would show significantly higher scores than those who received no feedback.

The only significant change in the treatment group receiving student feedback occurred with variable (Success in Stimulating Interest). The experienced teacher group showed no significant difference occurring.

Bartel concluded that:

"It is recognized that some of the characteristics that go to make up the image of the teacher are more stable than others. 'Appearance' is the most stable of the characteristics. 'Openness' and 'Consideration of Others' are other variables that appear to be quite stable. These types of characteristics appear to be inherent in the individual and very difficult to change." (p. 91).

Examining each item individually revealed that changes in one item of a teacher's image also produced changes in other items as students view teachers' behavior. One recommendation of this study was to further analyze the relationship between individual behaviors as presented in the Teacher Image Questionnaire, to determine what pairs or clusters present the greatest interaction.

The following list of 12 items appeared to be an appropriate categorization of the Western Michigan Teacher Image Rating Scale:

Personal Traits

1. Enthusiasm: Does he show interest in and enthusiasm for the subject? Does he appear to enjoy teaching this subject?
2. Sense of Humor: Does he share amusing experiences and laugh at his own mistakes?
3. Appearance: Are his grooming and dress in good taste?

4. Self-Control: Does this teacher become angry when little problems arise in the classroom?

#### Professional Competence

1. Knowledge of Subject: Does he have a thorough knowledge and understanding of his teaching field?
2. Clarity of Presentation: Are ideas presented at a level which you can understand?
3. Encouragement of Student Participation: Does this teacher encourage you to raise questions and express ideas in class?
4. Assignments: Are assignments sufficiently challenging without being unreasonably long?

#### Student-Teacher Relationship

1. Fairness: Is he fair and impartial in his treatment of all students in the class?
2. Attitude Toward Students: Do you feel that this teacher likes you?
3. Attitude Toward Student Ideas: Does this teacher have respect for the things you have to say in class?
4. Openness: Is this teacher able to see things from your point of view?

Other study recommendations included: (1) Junior high teachers' ratings versus senior high teachers' ratings; (2) Feedback with counseling by supervisor; (3) Utilize a longer time period. These recommendations made by Bartel were given prime consideration for incorporation in this study design.

### Group Counseling

Educators unknowingly have incorporated many group activities in the educational process through the years. More recently an extensive increase of formal group activities in education has become apparent. The practicing counselor in the counseling profession is faced with an abundance of loosely tied information relating to the many different group functions. There appears to be little or no set universal definition of what group counseling is and how this process differs from other types of group work.

Vriend and Dyer (1973) stated:

"The growing popularity of quasi-therapeutic group activities has left educational decision-makers in a quandary as to how 'group counseling' fits into the school curriculum or into a special services category. One reads about t-groups, therapy groups and a host of other appellations. For each of these practices there are proponents who argue for their inclusion, directly or indirectly, into the school's program of studies; and yet there are no firm guidelines to aid the decision-makers in deciding upon the appropriateness of this or that brand of group experience." (p. 45).

The group counseling category is a group process with distinct characteristics different from other group processes. Vriend and Dyer explain each of the group design and functions as follows:

**Group Psychology:** This group process is usually practiced in a hospital, clinic, or private psychotherapeutic office. It is conducted by licensed therapists and is not appropriate activity for the schools. It is generally conducted for individuals who are attempting to modify some form of their present behavior of which they have little or no control and are participating as part

of a physical psychological health-restoring plan.

Encounter Group: This "group movement" consists of a multitude of group experiences with an equal amount of labels. Examples of front-runners appear to be: Encounter, T-, Sensitivity, Marathon, Human Awareness, Human Potential, Human Relations, Sensory Awareness, and Interpersonal Growth Groups. An entire industry has developed with books, games, exercises and group leader instructions which are available to the general public for this purpose. The group facilitators are usually trained or semi-trained individuals who actively become a part of the group. Much of the activities are physical in nature, such as touching, facial expressions, physical exercises programmed for the expressions of a multitude of emotions. Vriend and Dyer recommend membership in these groups be limited to volunteering adults who are well aware of the various aspects of this type of group activity.

Group Guidance: These activities are associated with group functions conducted by school counseling staff, although many of these services may be provided by others in this educational setting. Such activities are scheduling, testing, advising, and providing occupational information associated to this process. Various group designs are established by the counselor to effectively serve the student population.

Group Counseling: Group counseling is associated with a population that is considered normal. Unlike group psychotherapy, where action is predicated on the assumption that

members are in need of treatment, the clients of group counseling are interested in developing and modifying their own mental, emotional, and physical behavior. In dealing with normality each individual is considered to exhibit certain behaviors which in given environments can be non-productive, inappropriate and self-defeating. Group counseling focuses on these behaviors and attempts to assist the normal individual in controlling or modifying this behavior. Vriend and Dyer further stated, "This process is a most appropriate group experience for the educational setting." (p. 50).

Group counseling is not to be constricted to the school population, but can assist any group of individuals who are interested in the elimination of behaviors which produce negative results.

Ohlsen (1970) discussed the need for the group counselor to determine the make-up of the group and consider all elements in attempting to diagnose the results of group counseling. He stated:

"The counselor must ask more precise questions than 'was the group counseling really effective?' or, 'did the group counselor really change clients' attitudes and behaviors?' Instead, an investigator must ask: 'for whom was this particular group counseling effective and with what other clients and under what kind of circumstances?' Added to these questions are many other specific questions needed to truly appraise the group counseling process." (p. 240).

Ohlsen further stated:

"Obviously it is difficult for researchers to meet all of these conditions in appraising outcomes of group counseling. When one considers the practitioner's commitment to service, the

limited time and financial support available to him for research, and the difficulties involved in appraising counseling outcomes, one can readily understand why some practitioners avoid systematic appraisal, and why some who attempt it overlook avoidable errors in their research design. Though no study even approaches perfection, counselors can improve their appraisal of clients' growth and design much better studies for formal appraisal of group counseling, conducted for specific clients under specified conditions by adequately described treatment methods and counselors." (pp. 241-242).

During the treatment process of this study, many principles of effective group counseling recommended by Ohlsen were incorporated. Ohlsen gave added significance to this research when he stated that:

"Failure to define specific goals in precise measurable or observable terms for each client is one of the most serious weaknesses of the research designed to appraise outcomes of counseling. Such goals are necessary in order to define the precise criteria needed to develop and/or to select instruments and observation methods to appraise change in clients." (p. 250).

The identification of specific individual goals and the focusing of group counseling sessions on these predetermined goals appears to be more harmonious with the approved methods of incorporating group counseling in the educational process. Through the administration of the student diagnostic instrument utilized in this study, each student teacher established individual goals for behavioral change and improvement, rather than the facilitator establishing universal goals for all individuals in the group.

Instruments insensitive to the desired client changes are listed as a weakness by Ohlsen. The instrument should be flexible enough to provide reliable results based on the clients' desired

outcome. The instrument utilized in this study provided the client an opportunity to select various elements which are appropriate to his specific teaching environment and individual behavior.

Ohlsen further stated:

"Counseling's worth rests on the notion of furthering individual development and helping individuals face and learn to deal with painful and distressing problems. Therefore, appraisal must focus upon individual change. Involving clients in defining treatment goals (the basis for defining criteria to appraise change) conveys respect for clients and encourages them to discuss termination when they feel that they should, instead of merely quitting--either because they believe they have obtained the assistance they require or because they do not believe they can be helped." (p. 256).

Final evaluation activity will provide each participant in the experimental group of this study with insights relating to student perceptions of their individual behavior and effectiveness. Based on this feedback, each student teacher can then determine if the "Peer Group Counseling Sessions" were beneficial to him as an individual and consider future outcomes of participating in other group activities.

### Summary

Extensive literature is available relating to the process of teacher evaluation by administrative and supervisory personnel. Only a limited amount of this literature relates to client centered evaluations such as students evaluating teachers. The majority of the literature reviewed considered the student evaluation process a positive addition to the overall teacher evaluation process.

Designers of the various published teacher rating instruments to be utilized by students have indicated the significant positive effect these scales can have in modifying teacher behavior.

Group counseling is a relatively new process in the overall guidance field. Only limited research is available in comparison to other guidance topics. The present state of the art appears to be somewhat confusing as to the various group techniques presently being used in the psychological and educational professions. Even with this present state, most authorities agree that group guidance can be a viable addition to the process of changing human behavior.

## CHAPTER III

### Procedures of the Study

#### Introduction

The purpose of this chapter was to present a description of methods and procedures utilized in selection of schools, student teachers, instruments and treatments used in this study. It further detailed the processes used in designing and collecting data for the study. A brief description of the statistical techniques employed in analyzing the data was also presented.

#### Sample Population

This study was confined to the geographical area of the state of Virginia specifically the three industrial arts student teacher centers located in: (1) Roanoke-Blacksburg area; (2) Richmond area; and (3) Northern Virginia. Individual schools in these areas were chosen based on their desire and ability to provide a qualified cooperating teacher and specific learning environment requested by the student teacher. Approval from the proper administrative authority to conduct the research was received before teacher participation was sought.

The geographical areas represented examples of urban, suburban, and metropolitan schools. No attempt was made to equally balance the school population as to these elements.

The student teacher population participating consisted of those industrial arts undergraduate seniors of Virginia Polytechnic

Institute and State University requesting student teacher placements in the fall quarter 1975 and winter quarter of 1976. Those student teachers who elected an internship which consists of student teaching plus other activities also participated during the first 12 weeks of the intern program. Only three student teachers in this study elected the intern program. The total number of participants consisted of 43 student teachers, 1460 secondary students, 38 cooperating teachers and four university supervisors. The secondary student population was divided into 645 middle school students, 825 senior high students with 18 student teachers at the middle school level and 25 at the senior high level.

#### Design of Study

Typically, researchers are finding increasingly larger problems in attempting to establish experimental studies in public education although a strong need exists for such research. Reflecting on the need for experimental research studies in education, Rosenshine and Furst (1971), stated:

"The most important studies to be undertaken are experimental studies. Experimental studies in teacher education involve a number of steps. The first step is to determine whether teachers trained for specific performance criteria behave differently in their classroom from similar teachers who do not receive such training. But it is more important to determine whether the trained teachers engender greater cognitive or affective growth in their students compared to the controls." (p. 65).

Due to the almost total lack of experimental classroom research, this investigator decided to design an experimental classroom research

problem related to changes in teachers' behavior and competencies in students' perceiving ratings of teachers.

The post-test-only Control Group Design was the foundation for implementing this research study. Its form is:

|       |     |       |
|-------|-----|-------|
| $R_m$ | $X$ | $O_1$ |
| $R_m$ |     | $O_2$ |

The elimination of the basic pretest element in this design led some education researchers to question its ability to provide effective results without first pretesting the subjects to insure pure randomization. Campbell and Stanley (1968) added validity to its use by stating:

"While the pretest is a concept deeply embedded in the thinking of research workers in education and psychology, it is not actually essential to true experimental designs. . . None the less, the most accurate all-purpose assurance of lack of initial biases between groups is randomization". (p. 25).

Campbell and Stanley further stated, "This design is greatly underused in education and psychological research." (p. 26).

Campbell and Stanley (1968) considered this research design to have the following advantages relating to internal validity: history, maturation, testing, instrumentation, regression, selection, mortality, interaction of selection and motivation. Only in the external validity was some question raised regarding the interaction of selection and  $X$ , and reactive arrangements. The interaction of testing and  $X$  provided position sources of external validity.

Two elements were considered before the student teacher was

randomly assigned to either the control or experimental group which provided some elements of a pretest design. Those matching considerations were:

1. Undergraduate quality point average of the student teacher.
2. Placement in middle and senior high school environments.

Each student teacher was assigned to a middle or senior high school teaching station. Following teaching station categorization, the student teacher population was ranked according to the overall available quality cumulative average (QCA) from highest to lowest in each category (middle or senior high).

Campbell and Stanley (1968) added additional significance to the design and matching process used in this study when they concluded:

"Covariance analysis and blocking on 'subject variables' such as prior grades, test scores, parental occupation, etc., can be used, thus providing an increase in the power of the significance test very similar to that provided by a pretest." (p. 26).

According to Dalton (1971) in absence of all other criteria the students' quality point average is still the most reliable predictor of teaching success.

Table I of student teachers shows their ranking and selection to the experimental or control group.

Incorporation of this matching prior to random assignment to groups insured that both the control group and experimental group

Table 1

## Middle School Student Teachers

Fall Quarter 1975

## Teacher Assignment

| <u>Teacher Number</u> | <u>Q.C.A.</u> | <u>Rank</u> | <u>Group Assignment</u> |
|-----------------------|---------------|-------------|-------------------------|
| 1                     | 2.4637        | 5           | Experimental            |
| 3                     | 3.3333        | 2           | Control                 |
| 5                     | 2.5763        | 4           | Experimental            |
| 7                     | 3.5000        | 1           | Experimental            |
| 9                     | 3.000         | 3           | Control                 |
| 11                    | 2.2288        | 6           | Control                 |

Winter Quarter 1976

| <u>Teacher Number</u> | <u>Q.C.A.</u> | <u>Rank</u> | <u>Group Assignment</u> |
|-----------------------|---------------|-------------|-------------------------|
| 13                    | 3.7382        | 1           | Control                 |
| 15                    | 3.6216        | 2           | Experimental            |
| 17                    | 3.5032        | 3           | Experimental            |
| 19                    | 3.0810        | 4           | Control                 |
| 21                    | 3.0519        | 5           | Experimental            |
| 23                    | 3.0000        | 6           | Experimental            |
| 25                    | 2.6932        | 7           | Control                 |
| 27                    | 2.6785        | 8           | Experimental            |
| 29                    | 2.5833        | 9           | Control                 |
| 33                    | 2.4161        | 10          | Experimental            |
| 31                    | 2.4594        | 11          | Control                 |
| 35                    | 2.3701        | 12          | Experimental            |
| 37                    | 2.1030        | 13          | Control                 |

Table 2

## Senior High School Student Teachers

Fall Quarter 1975

## Teacher Assignment

| <u>Teacher Number</u> | <u>Q.C.A.</u> | <u>Rank</u> | <u>Group Assignment</u> |
|-----------------------|---------------|-------------|-------------------------|
| 2                     | 3.4526        | 1           | Experimental            |
| 4                     | 2.1627        | 6           | Experimental            |
| 6                     | 2.3038        | 4           | Experimental            |
| 8                     | 2.2910        | 5           | Control                 |
| 10                    | 3.0059        | 2           | Control                 |
| 12                    | 2.8210        | 3           | Control                 |

Winter Quarter 1976

| <u>Teacher Number</u> | <u>Q.C.A.</u> | <u>Rank</u> | <u>Group Assignment</u> |
|-----------------------|---------------|-------------|-------------------------|
| 14                    | 4.0000        | 1           | Control                 |
| 16                    | 3.2042        | 2           | Experimental            |
| 18                    | 3.0222        | 3           | Control                 |
| 20                    | 2.8741        | 4           | Experimental            |
| 22                    | 2.8581        | 5           | Experimental            |
| 24                    | 2.7857        | 6           | Control                 |
| 26                    | 2.6821        | 7           | Experimental            |
| 28                    | 2.6754        | 8           | Control                 |
| 32                    | 2.5163        | 9           | Experimental            |
| 30                    | 2.4516        | 10          | Experimental            |
| 34                    | 2.4149        | 11          | Experimental            |
| 36                    | 2.3290        | 12          | Control                 |
| 38                    | 2.2954        | 13          | Control                 |

Table 2  
(Continued)

| <u>Teacher Number</u> | <u>Q.C.A.</u> | <u>Rank</u> | <u>Group Assignment</u> |
|-----------------------|---------------|-------------|-------------------------|
| 40                    | 2.2864        | 14          | Control                 |
| 42                    | 2.2584        | 15          | Control                 |
| 44                    | 2.1047        | 16          | Experimental            |
| 48                    | 2.0630        | 17          | Experimental            |
| 50                    | 2.0054        | 18          | Control                 |
| 52                    | 1.9629        | 19          | Control                 |

were balanced as to the academic ability of the student teacher and grade level of the student participants. The matching process was accomplished; a die was thrown to determine membership in either the control or experimental groups. Teachers with senior high teaching stations ranking one and two in quality point average were considered first. If the die came up even the teacher ranked senior high number two was assigned to the experimental group with senior high student teacher rank number one assigned to the control group. This process alternated between middle and senior high teachers until all student teachers received a specific group assignment.

Some minor adjustments were conducted in the matching process when one of two factors occurred. Factor A being that the teacher's geographical location made it impossible for him to attend the group counseling session and Factor B, when two teachers in the same high school were assigned to different groups. These changes were made with teacher 42 and teacher 3. All other teachers were controlled by the rolling of the die process.

The final quality cumulative mean score for the control and experimental group was 2.8494 and 2.7381 respectively, which revealed no significant differences between the groups when a t test was conducted.

#### Collection and Tabulation of Data

The two instruments used in this study were adapted and printed on Standard IBM 507 mark sense forms for ease in scoring. The 1250 Addressograph Offset Press was used with a rubber based ink. A total

of ten thousand forms were printed, 2000 student teacher diagnostic questionnaires, 4000 student teacher rating scales (page one) and 4000 teacher rating scales (page two).

Each student teacher in both the control and experimental groups was requested to complete the teacher information sheet. The information sheets were forwarded to the researcher prior to the third week of student teaching. Based on the information received from the information forms, appropriate numbers of the student teacher diagnostic rating scales were pre-marked prior to sending these items to the experimental group. This pre-marking of the identification block of the student teacher diagnostic rating scale was accomplished to insure the accuracy of items numbered one through seven. The students were requested to complete only items eight and nine which were class number and male-female identification. The correct number of the forms were then sent to each student teacher in the experimental group along with a letter, instruction sheet for completing the student teacher diagnostic questionnaire, introductory paragraph before administration, and a transparency to be used in conjunction with the instruction sheet. (See Appendix A).

Follow-up telephone calls were made to all student teachers to verify receipt of the information and to answer any questions regarding the diagnostic instrument or administering process. September 24th and 25th, 1975, were recommended dates for completion of the diagnostic instrument for the fall groups. The data were to be returned to the researcher the following day for tabulation and scoring using the FORTRAN Program written specifically for scoring

the student teacher diagnostic rating scale. (See Appendix A).

The IBM 1230 Optical Scanner connected to an IBM Key Punch 534 was used to punch cards from the mark sense forms. These punched cards were read into the computer and printouts received for each teacher indicated his mean scores in each of the four diagnostic categories. Graphs were also constructed from these scores. These printouts and graphs were then made available to the student teacher experimental group during the first counseling session held on October 1, 1975, in the Roanoke area and on October 6, 1975, in the Northern Virginia area. (See Appendix B).

The same procedure was incorporated in collecting and scoring the student teacher rating scale as used in scoring the diagnostic scale. A specific FORTRAN Program was also written for scoring the rating scale. The one major difference between the diagnostic and rating instruments was in their administration. In the final collection of scores both the control group and experimental group provided data to be utilized in testing the hypothesis in this study. The winter quarter student teachers utilized the exact same process as the fall quarter student teachers in the collection and tabulation of data. The only changes that occurred were in the dates. (See Appendix A for complete test instruments and testing procedures).

#### (Diagnostic Questionnaire) Hypothesis to be Tested

$H_{01}$  - The student teacher diagnostic questionnaire will show no significant difference in students' ratings of student teachers by diagnostic categories.

(Rating Scale) Hypothesis to be Tested

Ho<sub>2</sub> - Students' total ratings of student teachers will show no significant difference between the control group receiving no feedback and experimental group receiving student feedback.

Ho<sub>3</sub> - Students category ratings of student teachers will show no significant difference between the control group receiving no student feedback and experimental group receiving student feedback.

Ho<sub>4</sub> - The student teacher rating scale will show no significant difference in students' ratings of student teachers by diagnostic categories.

Ho<sub>5</sub> - The student teacher rating scale will show no significant difference in university supervisor ratings of student teachers by diagnostic categories.

Ho<sub>6</sub> - The student teacher rating scale will show no significant difference in cooperating teachers ratings of student teachers by diagnostic categories.

(Likert Scale Versus Forced Choice) Hypothesis to be Tested

Ho<sub>7</sub> - Student ratings of industrial arts student teachers will show no significant difference between Part A the forced choice section and Part B the teacher image section of the student teacher rating scale.

Ho<sub>8</sub> - University supervisor ratings of industrial arts student teachers will show no significant difference between Part A the forced choice section and Part B the teacher image section of the student teacher rating scale.

Ho<sub>9</sub> - Cooperating teacher ratings of industrial arts student

teachers will show no significant differences between Part A the forced choice section and Part B the teacher image section of the student teacher rating scale.

(Grade Level) Hypothesis to be Tested

Ho<sub>10</sub> - No significant difference will exist between the supervisory rating and student ratings of industrial arts teachers.

(College Undergraduate Grades) Hypothesis to be Tested

Ho<sub>11</sub> - No significant difference in industrial arts student teachers ratings by secondary students will exist between the upper-half of the industrial arts student teachers and the lower-half of student teachers assigned to the fall quarter 1975 and the winter quarter 1976.

(Evaluator) Hypothesis to be Tested

Ho<sub>12</sub> - No significant difference will exist between the supervisory rating and student ratings of industrial arts teachers.

Ho<sub>13</sub> - No significant difference will exist between the cooperating teachers rating and student ratings of industrial arts teachers.

Ho<sub>14</sub> - No significant difference will exist between the cooperating teachers ratings and supervisory ratings of industrial arts teachers.

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\*NOTE: Level of significance in this study is considered to be .05.

### Orientation Session

A student teacher orientation presentation for the purpose of explaining the project was designed into the study. During this meeting both the control and experimental group received an explanation of their function and expectations. A second meeting following the initial general orientation provided the experimental group with a more detailed description of the treatment process and counseling session. Formal introductory letters were also sent to both groups during the initial week of student teaching.

An explanatory letter was sent to each school administrator involved in the study seeking permission to use his students in the student teacher evaluation process. Because of the sensitive nature of this study, a personal follow-up visit was conducted to answer any further inquiries.

Each cooperating teacher was sent an explanatory letter and invited to attend a regional orientation meeting for the purpose of explaining the study. Personal visitation to each cooperating teacher station was conducted to provide further information on a less formal basis and to schedule assignments and arrange evaluation procedures. (See Appendix A for complete communications procedure).

University supervisory personnel were well aware of the study and required no formal meeting.

### Experimental Group Treatment

During the fourth week of the student teaching process, the

teachers of the experimental group distributed to two of their classes the student teacher diagnostic rating scale. Only two classes were chosen to insure student teachers in both groups had the opportunity to deal with subject matter that they felt sufficiently prepared to teach. Inclusion of all classes would obviously increase the probability of the student teacher having to teach material he was unfamiliar with or ill-prepared to handle. The student teacher diagnostic rating scale designed for this study was an adaptation of Cosgrove's (1959) forced choice model. The instrument contained ten sets of behavioral traits with each set containing four individual behaviors statements pertaining to one of the following categories:

- A. Personal Traits
- B. Professional Competence
- C. Student-Teacher Relationship
- D. Classroom Management

The categorization of items in the diagnostic instruments was accomplished by a panel of experts consisting of the Steering Committee of the American Council of Industrial Arts Supervisors. The council consisted of elected representatives from the following states: Washington, Kansas, West Virginia, Virginia, Wisconsin, Minnesota and New York. Each item had to meet 75% agreement by the eight council members to be included in the diagnostic rating instrument. Items presented in the final instrument met this pre-determined requirement.

The students rate the four items in each set as they reflected their student teacher's competence or behavior. Using a priority

scale of A, B, C, and D for each set of items, the students are directed to assign each choice of a question one of the four letter grades, one trait or competence will receive an A, one a B, one a C, and one a D in each of the ten sets. Scores for each trait or competence were obtained by summing across sets. These scores formed the student teacher diagnostic profile as viewed by the students during the fourth week of student teaching.

Each student teacher received the same total mean score from the forced choice rating instrument. This eliminated the comparing of individual student teachers scores and provided a more conducive counseling environment.

The revised teacher diagnostic scale used in the study included items obtained from industrial arts student teacher rating instruments submitted by 34 colleges located in the eastern section of the United States. The colleges provided student teacher rating scales for this purpose were as follows:

1. Appalachian State
2. Buffalo - State University College
3. California State
4. Central Connecticut
5. Cheyney State College
6. City College - New York
7. Clemson University
8. Fairmont State
9. Florida State
10. Georgia - Southern

11. Kean - New Jersey
12. Miami University
13. Millersville
14. Montclair State
15. Newark
16. Norfolk State
17. Ohio Northern University
18. Ohio State University
19. Ohio University
20. Old Dominion University
21. Penn State
22. Rhode Island
23. South Carolina
24. State University - New York
25. Trenton State
26. University of Florida
27. University of Georgia
28. University of Maryland
29. University of Maine
30. University of Miami
31. Virginia Polytechnic Institute and State University
32. Virginia State
33. West Virginia University

To add validity and be included in the diagnostic instrument, each item had to appear on seventy percent of the college evaluation forms. This figure was the same percentage utilized in the original

Purdue Instructor Indicator form for item acceptance.

The revised form was felt to be more appropriate to the industrial arts environment since this area contains many specific items in the categories of teacher professional competencies and classroom management normally not associated with teachers in general. Designing the diagnostic scale specifically for industrial arts student teachers increased the possibility of providing significant student feedback during the treatment process.

The following is a listing of the ten items which appeared in each diagnostic category:

Personal Traits

1. Has neat appearance
2. Enthusiastic about teaching
3. Good voice and speech
4. Good sense of humor
5. Comes to class on time
6. Shows leadership
7. Is courteous
8. Is dependable
9. Has good physical appearance
10. Shows poise and self-control

Professional Competence

1. Knows subject matter
2. Uses good questioning methods
3. Gives good demonstration
4. Knows how to use equipment

5. Course material interesting
6. Grades students fairly
7. Lessons well organized
8. Individualized instruction
9. Achieves aims of lessons
10. Uses proper learning techniques

#### Student-Teacher Relationship

1. Listens to pupils' ideas
2. Students willingly work for teacher
3. Has good discipline
4. Gives each student an equal chance
5. Is fair in dealing with students
6. Students respect teacher
7. Works with slower students
8. Has help sessions
9. Communicates with students
10. Never forces ideas on students

#### Classroom Management

1. Maintains neat lab
2. Keeps good student records
3. Takes care of student projects
4. Good application of safety rules
5. Students properly use safety glasses
6. Knows where everything is
7. Tools well organized
8. Enough supplies available for lessons

9. Has good clean-up system
10. Gets things done on time

This student profile was incorporated in the development of student teacher performance objectives to improve the students' image in one or more of the four categories during the remaining eight weeks of the student teaching experience. The category with the lowest student rating was given prime consideration in establishing these performance objectives and strategies for improvement.

Since other research studies such as Littlefield (1971) and Bartell (1970) concluded that student feedback can only create meaningful change in teacher behavior when accompanied by proper counseling sessions, this study incorporated a peer group didactic process to analyze the results of individual teacher profiles. These sessions were arranged every two weeks for the experimental group. No formal presentations were designed into the first session other than the review of the student teacher profile chart and associated performance objectives. Additional sessions were planned by the group and other expertise from individuals in the counseling field was made available. Through the interaction of counseling and student feedback to student teacher experimental groups over an eight week time period, the researcher hypothesized an end result of overall increased student ratings for this group as compared to the control group which received no counseling.

Based on Ohlsen's (1970) recommendation of describing the counselor as well as the treatment, the following descriptions were provided from the Peer Group "Counseling" Sessions and facilitator.

### Facilitator Description

The facilitator of these sessions was semi-trained in general counseling field with limited formal training in group counseling. During the past sixteen years he has been a teacher, teacher educator, and supervisor of vocational education, responsible for the industrial arts and trade and industry areas. The facilitator's present staff responsibility consists of 85 teachers, principally in the middle and senior high school levels. He has actively employed group counseling techniques with this staff to modify specific teacher behavior relating to the classroom environment. Professionally, he attained a Masters Degree in Education and participated in many encounter group sessions as both a participant and facilitator. In his present capacity he has acted as a consultant, on local and state level, working directly with teachers in groups to institute teacher change in accepting and implementing more progressive teaching methods. As a Doctoral candidate, he has completed necessary course work with a cognate area in guidance and counseling.

### Format for Peer Group "Counseling" Sessions

#### Session Number 1:

- A. Researcher (Bonfadini) introduced himself and presented a brief overview of the study.
- B. Student teacher introduction procedure consisted of each teacher presenting information about his personal background and teaching assignment.
- C. Researcher introduced goals of the three counseling sessions and basic desires of the researcher to

assist each individual in achieving a more successful student teaching experience.

- D. Researcher explained the design of the diagnostic instrument and the instrument's basic objectives of determining relative teacher strength associated with the four diagnostic categories.
- E. Researcher explained the scoring procedure utilized with this instrument and provided each teacher with his scores.
- F. Researcher led a group discussion using hypothetical results and solicited group reaction to hypothetical diagnostic patterns.
- G. Researcher presented graphs of each individual's results without using specific names and solicited specific suggestions for developing more positive student reactions relating to each category.
- H. Each instructor was then requested to write specific behavioral objectives for one of the four diagnostic categories and designed methods for the implementation of these objectives during the next two weeks of student teaching.
- I. Researcher set meeting dates and places for future sessions.

#### Session Number 2:

- A. Researcher led general group discussion relating to the perceived effectiveness of the various

methods incorporated in the classroom environment designed to develop a more positive student reaction toward the teacher and learning process, based on session number one.

- B. Researcher listed all positive suggestions relating to specific behavioral objectives and outcomes of group session number two as the related to objectives set in session number one.
- C. Researcher led a discussion in determining whether individual teachers need to concentrate on a specific category selected in session number one or develop additional objectives relating to a second category.
- D. Researcher had group write individual behavioral objectives and procedures for implementation during the next two weeks of student teaching.
- E. Researcher established third session time and meeting place.

#### Session Number 3:

- A. Researcher led general group discussion relating to the perceived effectiveness of the various methods incorporated in the classroom environment designed to develop a more positive student reaction toward the teacher and learning process, based on session number two.

- B. Researcher listed all positive suggestions relating to specific behavioral objectives and outcomes of group session number three as they related to objectives set in session number two.
- C. Researcher led a discussion in determining whether individual teachers need to concentrate on a specific category selected in session number two or develop additional objectives relating to a third category.
- D. Researcher had group write individual behavioral objectives and procedures for implementation during the next two weeks of student teaching.
- E. Researcher indicated procedure for administering final student evaluation device during the last week of student teaching.
- F. Researcher closed final group session indicating his appreciation for the cooperation received from the student teachers during the study.

#### Student Teacher Required Lessons

Since the standardization of learning environments and classes between one student teaching situation and another was virtually impossible, the following lesson requirement was implemented to provide some form of continuity for student evaluation. Each industrial arts student teacher was required to conduct four control

lessons in the first four weeks of student teaching. Because of the variety of grade levels and courses being taught, the subjects selected had universal significance to the study of industrial arts and could be adapted to any course and grade level. These areas selected were:

(1) industry and how it applies to the specific student class;  
(2) general safety procedures; (3) demonstration of machine utilization;  
and (4) individual lesson reflecting student teachers' own needs and desires.

Each of the lessons contained three specific requirements:

1. Designed for 30 to 45 minute class periods.
2. Preceded by appropriate homework assignments.
3. Followed-up with some form of evaluation.

Other elements of the teacher-learning process such as questioning techniques, use of audio visual equipment, types of hand-out sheets and reference materials were left to the teacher's discretion. It was assumed that the teacher's creativity in presenting this material was one of the behaviors that contributed to a teacher's overall rating.

#### Evaluation Instruments Utilized in Study

The decision to use more than one final teacher evaluation scale served three purposes: (1) comparisons could be drawn between a forced choice instrument and Likert rating instrument; (2) incorporating more than one system would provide a broader base, therefore, increased the validity of the outcomes; and (3) the Purdue Instructor Performance

Indicator gave a general overall rating, whereas, the teacher image also provided a general overall rating but allowed for individual item analysis.

Rosenshine and Furst (1973) stated:

"Given the variation which exists in the items, scale and format of observational instruments, given the lack of any consistent set of functional relationships between classroom events and student growth, and given the limited results which suggest that systems which distort actual events have some functional value, it seems unwise to limit research to a single observational system or type of system. Even if one's approach to direct observation is grounded in abundant and well-honed theory and research, the problems of instrumentation are sufficiently complex that it cannot be assumed that the items, scales and formats chosen for an instrument will be the most functional ones for the situation. The optimal strategy at this point would be to use a variety of instruments in every study. Broad items and rating scales could be used to probe for sets of variables which appear to be significant correlates of outcome measures; narrow, focused items and category systems could be used to help identify the specific components of the significant items in the rating scales." (pp. 136-137).

The original Purdue Instructor Performance Indicator was developed at the college level for the evaluation of college personnel. The process included the administering of four-hundred and seventy-one questionnaires to college seniors requesting favorable and unfavorable behavioral items about teachers. All duplication in these items was eliminated with care taken to retain student idiom. Preliminary screening processing to reduce items to a workable amount of descriptive behavioral traits was then accomplished. The items were then compared to the ten broad categories as found in the "Purdue Rating Scale for

for Instruction". The Purdue Instructor Rating Scale was probably the most widely used of its kind in the nation and had a high reliability and validity and the scale contains classifications of teaching behavior qualities highly correlated with student opinion.

The final list of 164 descriptive items were submitted to 125 judges, consisting of students and faculty. These items were rated on a five point scale reflecting the best instructor the judges knew. This data was subject to an empirical test to determine the ability of the item to differentiate between good and bad instructors. The test used was the standard test of the significance of difference between means using unmatched groups. This procedure reduced these items to the final 48 used in the rating scale.

Two types of forms were developed for the purpose of cross-validation. Applications of the Herst formula for determining internal consistency yielded a reliability of .96. Pearson's correlation, after a three week interval, yielded an  $r = .95$ .

The Purdue Instructor Performance Indicator used a forced choice scale. The scale contained 12 items of four choices. Each choice was written to represent equally favorable statements but reflecting different dimensions of teaching. The rater was then requested to select two of the four possible choices best reflecting his perception of the instructor being evaluated. A possible point value of two points per each of the 12 sets provided a maximum total score of 24. H.H. Remmers (1967) in discussing the utilization of forced choice evaluation noted that it tends to minimize the skewness found in Likert

type scales.

Revision of the Purdue Instructor Performance Indicator for the present study was accomplished by interviewing fifteen randomly selected sixth grade students as to their ability to understand the wording and phrases presented in the Purdue Forced Choice Rating Scale. Appropriate changes in wording were accomplished to insure readability at the sixth grade level. Following the revision, each student was then asked to use the forced choice instrument in rating the best teacher they knew, followed by a rating of the poorest teacher they have previously had. Calculation of a t test indicated significance at the .01 level in the students' ability to discriminate between the best and poorest instructor. The same experiment with the American Council of Industrial Arts Supervisors also showed significance at the .01 level. Based on these findings the instrument was then accepted for further use in this research study.

The Teacher-Image Questionnaire, developed at Western Michigan University, was a student rating device designed to reflect the teachers' image through student evaluation of 16 behavior traits. The determination of original traits and their revision over the past eight years was accomplished through the use of factor analysis, item analysis and other correlational techniques.

The reliability estimates reported for the Teacher-Image Questionnaire was .92. This was obtained through the use of a test-retest with eight classes totally 340 student. The validity was based on the correlation between students' responses to the instrument

administered in a classroom and students' responses obtained in an indepth interview. A correlation of  $r = .79$  ( $N=108$ ) was observed indicating high concurrent validity.

The response scale for this instrument was arranged in the following steps: poor, fair, average, good, and excellent. The sixteen items presented for evaluation using this scale are:

1. Knowledge of Subject
2. Clarity of Presentation
3. Fairness
4. Control
5. Attitude toward Students
6. Success in Stimulating Interest
7. Enthusiasm
8. Attitude toward Students' Ideas
9. Encouragement of Student Participation
10. Sense of Humor
11. Assignments
12. Appearance
13. Openness
14. Self-Control
15. Consideration of Others
16. Effectiveness

Revision of this form for incorporation in this study included changing the rating scale to A.B.C.D.E. to be consistent with the scale used on other instruments in this study. In addition, an advantage of

of the ABC grading system was that students are very familiar with its use and it had a somewhat universal meaning to all children.

To better reflect the unique concerns of industrial arts instructors, the following four items were added to the original 12. These items were associated with the classroom management concept, one of the four basic categories in the teacher diagnostic scale:

- |                             |                           |
|-----------------------------|---------------------------|
| 1. Safety Practices         | 3. Supplies and Materials |
| 2. Student Personnel System | 4. Tools and Machines     |

Further classification of the 16 items of the teacher image questionnaire was accomplished through a panel of experts consisting of students, cooperating teachers and the American Council of Industrial Arts Supervisors. Seventy-five percent agreement was required for category acceptance. Each item was classified according to the four categories listed in the teacher-diagnostic scale. This procedure allowed for group item analysis as it pertained to the diagnostic rating scale and stated student teacher performance objectives. The following is a listing of the final 16 items and their categorization utilized in the teacher-image section of the student evaluation document:

| <u>Personal Traits</u> | <u>Professional Competence</u>         |
|------------------------|----------------------------------------|
| Enthusiasm             | Knowledge of Subject                   |
| Sense of Humor         | Clarity of Presentation                |
| Personal Appearance    | Encouragement of Student Participation |
| Self-Control           | Assignments                            |

Student-Teacher Relationship

Fairness  
 Attitude Toward Students  
 Attitude Toward Student Ideas  
 Openness

Classroom Management

Safety Practices  
 Student Personnel System  
 Supplies and Materials  
 Tools and Machines

Pilot Study

Pilot study was conducted to determine the degree of reliability of the diagnostic and final evaluation instruments. The school population selected for this pilot study was Godwin Middle School located in Prince William County, Virginia with a grade level make-up consisting of grades 6, 7, and 8. The school calendar was operated on a (45-15) model year round program and provided the researcher an opportunity to secure student reaction during the summer when other schools are traditionally closed. Sixth and seventh grade industrial arts classes were chosen as the grade level to complete the student teacher diagnostic questionnaire and evaluation instruments. The industrial arts program at Godwin was required of all boys and girls in grades six, seven, and eight. All students received 12 weeks of instruction in each grade level combining for one total year required in middle school. Selection of the seventh grade provided a sample of students both male and female who had at least 12 weeks of industrial arts in the sixth grade and three weeks in the seventh grade. The decision to conduct the pilot model at the seventh grade instructional level was based on the assumption that reliability would be equal or greater than the seventh grade scores when utilizing more mature high

school students for further evaluations; therefore, if the instruments displayed sufficient reliability at this level an appropriated score would occur at higher levels.

The test, retest method of estimating reliability was selected for the pilot study. The original test was administered on Tuesday with the retest following on Thursday. A total of 86 students participated in the pilot study of rating the three male industrial arts instructors at Godwin. The experience level of the instructors was Teacher A, six years; Teacher B, two years; and Teacher C, two years. Since a team teaching concept was employed by the industrial arts department, all students had had some experience with each of the three instructors and could provide a base for comparison. Each seventh grader evaluated only the instructor to whom he presently was assigned. Table 3 consists of mean scores, standard deviations, reliability coefficients arranged by teacher and class, for the final evaluation instrument. The Pearson Correlation was the method employed to obtain reliability coefficients between the test and retest. Separate means, standard deviations and reliability coefficients were calculated for both the forced choice element and the Teacher-Image Scale Element of the final evaluation instrument.

#### Statistical Treatments to be Applied

Each hypothesis was submitted to the following statistical procedures to determine the level of significance.

Ho<sub>1</sub> - A one-way analysis of variance for repeated measures was used to determine whether mean scores for the

Table 3  
PILOT STUDY SCORES

|                     | Teacher A |        | Teacher B |        | Teacher C |        |
|---------------------|-----------|--------|-----------|--------|-----------|--------|
|                     | Test 1    | Test 2 | Test 1    | Test 2 | Test 1    | Test 2 |
| Teacher-Image Scale |           |        |           |        |           |        |
| Class I             |           |        |           |        |           |        |
| Mean                | 68.06     | 69.38  | 60.26     | 63.20  | 68.16     | 67.50  |
| Standard Deviation  | 6.54      | 6.41   | 7.45      | 8.87   | 8.58      | 6.86   |
| Correlation         | .922      |        | .789      |        | .475      |        |
| Class II            |           |        |           |        |           |        |
| Mean                | 64.70     | 68.28  | 64.75     | 58.56  | 63.50     | 64.76  |
| Standard Deviation  | 6.49      | 6.03   | 9.66      | 16.30  | 8.20      | 6.43   |
| Correlation         | .373      |        | .541      |        | .338      |        |
| Forced Choice       |           |        |           |        |           |        |
| Class I             |           |        |           |        |           |        |
| Mean                | 9.88      | 9.88   | 9.92      | 9.61   | 11.33     | 11.66  |
| Standard Deviation  | 1.62      | 2.32   | 1.98      | 2.14   | 2.20      | 2.11   |
| Correlation         | .750      |        | .532      |        | .549      |        |
| Class II            |           |        |           |        |           |        |
| Mean                | 10.14     | 9.71   | 9.86      | 8.93   | 10.69     | 9.69   |
| Standard Deviation  | 2.04      | 1.54   | 2.45      | 2.15   | 1.98      | 2.63   |
| Correlation         | .464      |        | .351      |        | .624      |        |

four diagnostic categories comprising the student teacher diagnostic questionnaire differed significantly for the experimental and control groups. The Newman-Keuls method was used to test the differences between pairs of means.

Ho<sub>2</sub> - A t test was used to determine whether the mean scores received by experimental Group (A) differed significantly from the mean for the control Group (B).

Ho<sub>3</sub>, Ho<sub>4</sub>, Ho<sub>5</sub>, Ho<sub>6</sub> - A repeated measures analysis of variance was used to determine whether the total mean scores for the four diagnostic categories comprising the student teacher rating scale differed significantly for the three groups of evaluators. The Newman-Keuls method was used to test the differences between pairs of means.

Ho<sub>7</sub>, Ho<sub>8</sub>, Ho<sub>9</sub> - A Product Moment Correlation was computed to determine the relationship between the forced choice section of the student teacher rating scale and teacher image section of the student teacher rating scale for each of the following groups: (1) students; (2) college supervisors; and (3) cooperating teachers.

Ho<sub>10</sub> - A t test was computed to determine whether the mean scores for high school student teachers differed significantly from the mean scores of middle school teachers.

Ho<sub>11</sub> - A t test was computed to determine whether the mean scores for college students having higher quality

cumulative averages differed significantly from the college students having lower quality cumulative averages.

Ho<sub>12</sub>, Ho<sub>13</sub>, Ho<sub>14</sub> - A Product Moment Correlation was computed to determine the relationship between student teachers' total scores received on the student teacher rating scale from the three groups of evaluators.

Each of the procedures will be explained in more detail in Chapter IV.

### Summary

The sample for this study was taken from a wide range of school divisions throughout the state of Virginia by utilizing Virginia Polytechnic Institute and State University's student teaching centers in varied geographical areas. The student sample consisted of secondary school children in grades six through twelve enrolled in industrial arts classes.

The post-test-only Control Group Design was incorporated in this research. This design contained many positive aspects relating to internal validity and was highly recommended by Campbell and Stanley. Each of the participants in this study was randomly assigned to either a control or experimental group. In addition two criteria were used to match the student teachers before random assignment to the group was accomplished. Those items were quality cumulative average and grade level assignment. This matching procedure can be expected to increase the equality of the groups before treatment and lead to a more powerful test of differences between groups subsequent to treatment.

Orientation sessions were conducted and necessary permission was received to conduct the study in varied school systems. All individuals involved were assured of confidentiality in the final results.

The final instrumentation design used in this research was based on proven teacher ratings instruments designed for student use in evaluating teacher performance. The instruments designed for use in this study were shown to yield reliability and validity estimates typical of such instruments as used in other reported research. The American Council of Industrial Arts Supervisors acted as the panel of experts to sanction instrumentation changes.

Formal procedures were developed for administering all instruments to both the control and experimental groups. These procedures also included a means for providing student feedback to the student teacher in "Peer Group Consultation Sessions". These sessions were deemed sufficient to provide the experimental group with enough student feedback and time to make significant behavioral changes as used by the students.

A system for scoring and evaluating the results received from the rating instruments was established through the use of mark sense forms. Data cards were punched for statistical calculation using a computer. Data were submitted to various statistical procedures to test each of the hypotheses setting the level of significance at the .05 level. These results are further discussed in Chapters IV and V of this study.

## CHAPTER IV

### Analysis and Interpretation of Data

#### Introduction

The following chapter presents an analysis of the scores received by the various groups of student teachers. Each set of scores was submitted to appropriate statistical tests to determine if the data supported the original hypothesis stated in chapter III. Charts and graphs are also present to help clarify the results. The material was discussed in relationship to the two rating scales in this study, the student teacher diagnostic questionnaire and the student teacher rating scale.

#### Student Teacher Diagnostic Questionnaire

During the third week of student teaching in both the fall and winter quarters this instrument was sent to a total of 21 student teachers in the experimental group. Specific dates during the fourth week of student teaching were assigned for administering the scales. The student teachers were requested to select two classes of students capable of providing an accurate evaluation of their teaching environment. Instructional sheets and transparencies were provided to assist the student teacher in explaining the diagnostic rating scale. The students were then requested to rate the student teacher utilizing the 40 item, forced-choice diagnostic scale. Each teacher was requested to assist students who had reading difficulties by reading the various statements to these students.

Nineteen of the 21 student teachers in the experimental group were able to successfully complete the diagnostic questionnaire. Two instructors, number 27 and 33, had scheduling problems which prohibited them from having students with sufficient exposure to the student teacher necessary for obtaining meaningful diagnostic results. These teachers were removed from the experimental group but provided scores for the final evaluation ratings at the end of the twelve week period. This assisted in determining the student teacher environmental characteristics as viewed by students at the end of the student teaching experience.

Six hundred and ninety-five students correctly completed the diagnostic questionnaire. Included were 372 middle school students and 323 high school students. The instruments were machine scored and the results punched on cards for final evaluation. Any answer sheet which had an excessive number of errors was removed. This procedure could easily be accomplished by inspecting the total points received which, in all cases, should have been 100 points. A 10% error was allowed in the total and all scores above or below this number were removed.

The student teacher diagnostic questionnaire provided scores in the following four diagnostic categories: personal traits, professional competencies, pupil-teacher relationship and classroom management. (Table 4). Each of the 10 items contained four statements, one statement pertaining to each of the four diagnostic categories. The students were required to rate each set on a priority scale explained in Chapter III. Final tabulation

TABLE 4

STUDENT TEACHER DIAGNOSTIC SCORES BY TEACHER AND DIAGNOSTIC CATEGORY

| <u>TEACHER<br/>NUMBER</u> | <u>PERSONAL<br/>TRAITS</u> | <u>PROFESSIONAL<br/>COMPETENCIES</u> | <u>STUDENT-TEACHER<br/>RELATIONSHIP</u> | <u>CLASSROOM<br/>MANAGEMENT</u> |
|---------------------------|----------------------------|--------------------------------------|-----------------------------------------|---------------------------------|
| 01                        | 2.45                       | 2.32                                 | 2.72                                    | 2.51                            |
| 02                        | 2.36                       | 2.28                                 | 2.51                                    | 2.84                            |
| 04                        | 2.46                       | 2.31                                 | 2.80                                    | 2.40                            |
| 05                        | 2.38                       | 2.41                                 | 2.76                                    | 2.46                            |
| 06                        | 2.55                       | 2.25                                 | 2.57                                    | 2.63                            |
| 07                        | 2.27                       | 2.30                                 | 2.95                                    | 2.49                            |
| 15                        | 2.35                       | 2.50                                 | 2.72                                    | 2.41                            |
| 16                        | 1.96                       | 2.15                                 | 2.67                                    | 3.07                            |
| 17                        | 2.40                       | 2.27                                 | 2.59                                    | 2.53                            |
| 20                        | 2.25                       | 2.20                                 | 2.85                                    | 2.57                            |
| 21                        | 2.26                       | 2.57                                 | 2.63                                    | 2.34                            |
| 22                        | 2.17                       | 2.22                                 | 2.50                                    | 2.83                            |
| 30                        | 1.95                       | 2.28                                 | 2.39                                    | 3.14                            |
| 32                        | 1.99                       | 2.41                                 | 2.69                                    | 2.78                            |
| 33                        | 2.39                       | 2.11                                 | 2.68                                    | 2.55                            |
| 34                        | 2.35                       | 2.19                                 | 2.53                                    | 2.72                            |
| 35                        | 2.14                       | 2.55                                 | 2.67                                    | 2.53                            |
| 44                        | 2.17                       | 2.20                                 | 2.49                                    | 3.05                            |
| 48                        | 2.32                       | 2.43                                 | 2.84                                    | 2.29                            |
| TOTAL<br>MEAN<br>SCORE    | 2.27                       | 2.43                                 | 2.66                                    | 2.63                            |

gave every student teacher the same total of 100 points and a mean score of 2.5. The difference occurred in the individual mean scores associated with the four diagnostic categories.

#### Tabulation of Data for Diagnostic Questionnaire

Tabulation of data was accomplished with a FORTRAN Program written specifically for scoring the student teacher diagnostic questionnaire. All 19 student teachers in the experimental groups received a set of scores which were charted and graphed according to diagnostic categories. A graph of each student teacher scores in the experimental group, visually displays the various weights assigned to each of the four diagnostic categories by students. (See Appendix B).

On each graph the four diagnostic categories is listed on the left side of the page. The page contains three graphs representing the two classes of students listed as Class 1, Class 2, and a total class graph illustrating the combined scores. The 2.5 mean score on the base line is the starting point for each graph. The four points reflecting the relative weight of the diagnostic categories are plotted to visually depict a profile of the individual student teacher during the fourth week of student teaching as seen by these two classes of students.

These scores and graphs were presented to the student teacher during the initial group "counseling" sessions and provided the focal point for group interaction during session

one. Each student teacher was provided a transparency of these graphs to be utilized in a discussion period with his students. Based on this feedback the student teacher was to develop behavioral objectives and strategies for implementation that he believed would result in more positive student ratings. Further discussions and strategies for change were discussed in group sessions two and three.

Visual inspection of the graphs indicated a tendency for all student teachers to be rated lower in the personal traits and professional competencies categories. In all nineteen cases these two categories were ranked either third or fourth and in no instance were they ranked first or second.

#### Analysis of Subscores on the Diagnostic Questionnaire

The statistical procedure chosen for determining if significant differences existed between the four diagnostic categories was a repeated measures one-way analysis of variance.

Each score represented separate diagnostic category measurements but were reflective of the same repeated measurements on one individual rather than four entirely different scores on four different subjects thus providing the rationale for choosing this statistical procedure. Additional considerations were given to the scores being ipsative in nature but since the ipsative nature of the diagnostic questionnaire was limited to the individual sets and not to the total scores obtained by summing across sets, the statistical procedure chosen was

considered appropriate. The BMD-08V Program was used for this analysis.

The total mean score for nineteen student teachers was 2.47131 which was considered acceptable and with the ten percent allowance permitted for student error while completing the diagnostic form. If all students had accurately completed the form, the total mean score should have been 2.5. Individual cell means were as follows: (1) personal traits, 2.27210; (2) professional competence, 2.31315; (3) student teacher relationship, 2.66105 and (4) classroom management, 2.63894.

The computed F scores was 19.0956 which was above the 5.06 value required for significance at the .01 level with 54 degrees of freedom. Based on these calculations the null Hypothesis  $H_{01}$ , stated that no significant difference exists between the diagnostic categories was rejected.

Further determination of which categories were significantly different from the other categories was accomplished using the Newman-Keuls method to test the difference between pairs of means. The data for this Newman-Keuls is presented in Table 5.

The critical values for each category were obtained from Ferguson (1971) Critical Values of Studentized Range Statistic Chart at the appropriate degrees of freedom level. The calculated critical values required for significance at the .01 level are also listed in Table 5.

To determine if a diagnostic category obtained significance at the .01 level, the difference between the ranked mean scores

must exceed the critical value for that specific step. The difference between the diagnostic categories of personal traits and professional competence was only .7786, far below the 3.4414 critical value score required for significance. Differences between personal traits and professional competence was 6.97 and 6.19 respectively. Both scores were above the critical value scores required for significance at the .01 level. Student teacher relationships also differed significantly from the personal traits and competency category but did not differ significantly from the classroom management category. The student teacher relationship critical value required for significance at the .01 level was 4.234. Table 5 reflected the .01 level areas of significance by marking each category with a double asterisk.

#### Student Teacher Rating Scale Scoring and Tabulation

During the eleventh week of student teaching all student teachers in both the experimental and control groups were sent sufficient copies of the student teacher rating scale. The 43 student teachers were then rated by two classes of students. Each student teacher was requested to return the scales upon completion for machine scoring and tabulation. Cooperating teachers and college supervisors were also requested to complete a student teacher rating scale for assigned student teachers and return for scoring and tabulation.

Scoring was accomplished utilizing the IBM 1230 Optical Scanner connected to an IBM Key Punch 534 used to punch cards

Table 5  
Diagnostic Questionnaire  
Test on Differences Between Pairs of Means.  
Student Ratings

| CATEGORY                                                                                |         | Personal<br>Traits<br>(1) | Professional<br>Competence<br>(2) | Classroom<br>Management<br>(4) | Student-Teacher<br>Relationship<br>(3) |
|-----------------------------------------------------------------------------------------|---------|---------------------------|-----------------------------------|--------------------------------|----------------------------------------|
| N=19                                                                                    |         |                           |                                   |                                |                                        |
| Totals                                                                                  |         | 43.1699                   | 43.9485                           | 50.1399                        | 50.5600                                |
| (1)                                                                                     | 43.1699 | -----                     | .7786                             | 6.97                           | 7.3901                                 |
| (2)                                                                                     | 43.9485 | -----                     | -----                             | 6.19                           | 6.6115                                 |
| (4)                                                                                     | 50.1399 | -----                     | -----                             | -----                          | .4201                                  |
| (3)                                                                                     | 50.5600 | -----                     | -----                             | -----                          | -----                                  |
| Studentized Range Statistic<br>for .01 Level Significance<br>with 54 Degrees of Freedom |         |                           | 3.82                              | 4.37                           | 4.70                                   |
| Critical Value Requirements<br>for Significance at the .01<br>Level                     |         |                           | 3.4414                            | 3.9767                         | 4.277                                  |
| CATEGORY                                                                                |         | (1)                       | (2)                               | (4)                            | (3)                                    |
| (1)                                                                                     |         | -----                     | -----                             | **                             | **                                     |
| (2)                                                                                     |         | -----                     | -----                             | **                             | **                                     |
| (4)                                                                                     |         | -----                     | -----                             | -----                          | -----                                  |
| (3)                                                                                     |         | -----                     | -----                             | -----                          | -----                                  |

NOTE: \*\* Indicates items meeting critical value requirements for significance at .01 level.

from the completed student teacher rating scale. The data was then scored using a FORTRAN Program written specifically for scoring this rating scale. The program provided printouts of individual scores for both parts of the student teacher rating scale, Part A consisted of the 12 set forced-choice section and Part B the 16 item Likert scale teacher image section. The combination of Part A and Part B scores provided the total student teacher rating score. The teacher image section of the scale also provided scores for each student teacher in the same four diagnostic categories as the student teacher diagnostic questionnaire; personal traits, professional competencies, student-teacher relationship and classroom management.

Tables 6, 7, and 8 lists all the student teacher scores received from the three evaluators; students, cooperating teachers and college supervisors. The scores are listed by teacher number, forced-choice score (A), teacher image score (B), total score (A&B) and a breakdown of the teacher image score into the four diagnostic categories.

Visual representation of the teacher image scores and corresponding category breakdown are also shown in graphical form. (See Appendix C). Four individual student teachers' graphs are presented on each page and numbered according to assigned student teacher number. There are three sections of graphs representing the three groups of evaluators; students, cooperating teachers, and college supervisors. Each individual student teacher graph starts at the base line with the teacher's mean

Table 6

## Student Teacher Scores for Rating Scale

Students

| Teacher<br>Number | Forced-<br>Choice<br>Score (A) | Teacher<br>Image<br>Score (B) | Total<br>A & B | Category Breakdown of Teacher Image |                         |                                 |                         |
|-------------------|--------------------------------|-------------------------------|----------------|-------------------------------------|-------------------------|---------------------------------|-------------------------|
|                   |                                |                               |                | Personal<br>Traits                  | Teacher<br>Competencies | Student-Teacher<br>Relationship | Classroom<br>Management |
| 01                | 11.74                          | 60.66                         | 72.40          | 14.83                               | 15.54                   | 15.00                           | 15.31                   |
| 02                | 14.48                          | 62.76                         | 77.24          | 15.04                               | 15.88                   | 15.92                           | 15.92                   |
| 03                | 12.74                          | 71.87                         | 84.61          | 17.48                               | 17.81                   | 18.06                           | 18.52                   |
| 04                | 11.62                          | 61.19                         | 72.81          | 13.73                               | 15.62                   | 14.38                           | 17.46                   |
| 05                | 12.74                          | 65.22                         | 77.96          | 15.45                               | 16.54                   | 15.91                           | 17.32                   |
| 06                | 13.47                          | 69.19                         | 82.66          | 16.22                               | 17.44                   | 17.66                           | 17.88                   |
| 07                | 12.70                          | 63.09                         | 75.79          | 15.14                               | 15.98                   | 14.95                           | 17.02                   |
| 08                | 14.47                          | 73.09                         | 87.56          | 18.00                               | 18.00                   | 18.28                           | 18.81                   |
| 09                | 13.08                          | 66.03                         | 79.11          | 16.50                               | 16.08                   | 15.94                           | 17.50                   |
| 10                | 11.74                          | 65.19                         | 76.93          | 14.85                               | 17.11                   | 16.00                           | 17.22                   |

Table 6

Continued

| Teacher<br>Number | Forced-<br>Choice<br>Score (A) | Teacher<br>Image<br>Score (B) | Total<br>A & B | Personal<br>Traits | Teacher<br>Competencies | Student-Teacher<br>Relationship | Classroom<br>Management |
|-------------------|--------------------------------|-------------------------------|----------------|--------------------|-------------------------|---------------------------------|-------------------------|
| 11                | 13.57                          | 71.20                         | 84.77          | 16.92              | 17.82                   | 17.75                           | 18.70                   |
| 12                | 13.94                          | 72.54                         | 85.49          | 17.80              | 17.51                   | 18.09                           | 18.14                   |
| 13                | 13.36                          | 70.58                         | 83.94          | 16.91              | 17.85                   | 17.52                           | 18.30                   |
| 14                | 13.73                          | 64.00                         | 77.73          | 15.09              | 16.45                   | 16.27                           | 16.18                   |
| 15                | 13.88                          | 68.45                         | 82.33          | 16.22              | 17.06                   | 17.33                           | 17.84                   |
| 16                | 13.51                          | 68.79                         | 82.30          | 17.44              | 16.91                   | 17.70                           | 16.74                   |
| 17                | 13.60                          | 67.05                         | 80.65          | 16.45              | 17.35                   | 17.25                           | 16.00                   |
| 18                | 12.09                          | 64.18                         | 76.27          | 15.27              | 16.23                   | 16.00                           | 16.68                   |
| 19                | 12.89                          | 70.39                         | 83.28          | 17.11              | 17.67                   | 17.89                           | 17.72                   |
| 20                | 12.40                          | 58.10                         | 70.50          | 12.90              | 15.25                   | 15.45                           | 14.50                   |
| 21                | 13.65                          | 70.85                         | 84.50          | 17.60              | 17.40                   | 17.35                           | 18.50                   |
| 22                | 13.50                          | 70.75                         | 84.25          | 18.06              | 17.72                   | 17.50                           | 17.47                   |

Table 6

Continued

| Teacher<br>Number | Forced-<br>Choice<br>Score (A) | Teacher<br>Image<br>Score (B) | Total<br>A & B | Personal<br>Traits | Teacher<br>Competencies | Student-Teacher<br>Relationship | Classroom<br>Management |
|-------------------|--------------------------------|-------------------------------|----------------|--------------------|-------------------------|---------------------------------|-------------------------|
| 24                | 12.75                          | 66.79                         | 79.54          | 16.43              | 16.18                   | 17.18                           | 17.00                   |
| 25                | 14.12                          | 67.88                         | 82.00          | 16.70              | 17.45                   | 16.76                           | 16.97                   |
| 26                | 12.89                          | 69.11                         | 82.00          | 17.14              | 16.82                   | 17.82                           | 17.32                   |
| 27                | 13.82                          | 62.39                         | 76.20          | 14.95              | 15.36                   | 15.41                           | 16.66                   |
| 28                | 13.94                          | 73.41                         | 87.34          | 17.88              | 18.47                   | 18.41                           | 18.66                   |
| 29                | 13.39                          | 72.55                         | 85.93          | 17.61              | 18.09                   | 18.41                           | 18.43                   |
| 30                | 14.71                          | 70.76                         | 85.47          | 17.79              | 17.53                   | 17.62                           | 17.82                   |
| 31                | 14.71                          | 73.03                         | 87.74          | 18.16              | 17.95                   | 18.76                           | 18.16                   |
| 32                | 12.47                          | 65.19                         | 77.67          | 16.25              | 16.31                   | 15.92                           | 16.72                   |
| 34                | 13.29                          | 66.44                         | 79.74          | 15.76              | 17.18                   | 16.65                           | 16.85                   |
| 35                | 12.70                          | 69.37                         | 82.07          | 17.13              | 16.87                   | 17.33                           | 18.03                   |
| 36                | 11.86                          | 60.00                         | 71.86          | 14.55              | 14.83                   | 13.83                           | 16.79                   |
| 37                | 14.30                          | 70.10                         | 84.40          | 16.33              | 17.53                   | 17.93                           | 18.30                   |

Table 6

Continued

| Teacher<br>Number | Forced-<br>Choice<br>Score (A) | Teacher<br>Image<br>Score (B) | Total<br>A & B | Personal<br>Traits | Teacher<br>Competencies | Student-Teacher<br>Relationship | Classroom<br>Management |
|-------------------|--------------------------------|-------------------------------|----------------|--------------------|-------------------------|---------------------------------|-------------------------|
| 38                | 14.19                          | 68.25                         | 82.44          | 17.25              | 17.31                   | 16.94                           | 16.75                   |
| 40                | 13.22                          | 64.06                         | 77.28          | 16.25              | 16.03                   | 16.19                           | 15.59                   |
| 42                | 12.14                          | 62.89                         | 75.03          | 15.97              | 15.16                   | 14.89                           | 16.86                   |
| 44                | 12.72                          | 64.98                         | 77.70          | 16.34              | 16.45                   | 16.09                           | 16.11                   |
| 48                | 13.18                          | 61.21                         | 74.39          | 14.21              | 15.61                   | 15.37                           | 16.03                   |

Table 7  
Student Teacher Scores for Rating Scale  
Co-operating Teachers

| Category Breakdown of Teacher Image |                         |                         |             |                 |                      |                              |                      |
|-------------------------------------|-------------------------|-------------------------|-------------|-----------------|----------------------|------------------------------|----------------------|
| Teacher Number                      | Forced-Choice Score (A) | Teacher Image Score (B) | Total A & B | Personal Traits | Teacher Competencies | Student-Teacher Relationship | Classroom Management |
| 01                                  | 12.00                   | 71.00                   | 83.00       | 20.00           | 18.00                | 18.00                        | 15.00                |
| 02                                  | 16.00                   | 76.00                   | 92.00       | 19.00           | 19.00                | 19.00                        | 19.00                |
| 03                                  | 41.00                   | 79.00                   | 93.00       | 19.00           | 20.00                | 20.00                        | 20.00                |
| 04                                  | 10.00                   | 64.00                   | 74.00       | 15.00           | 16.00                | 15.00                        | 18.00                |
| 05                                  | 17.00                   | 77.00                   | 94.00       | 19.00           | 18.00                | 20.00                        | 20.00                |
| 06                                  | 14.00                   | 76.00                   | 90.00       | 19.00           | 19.00                | 20.00                        | 18.00                |
| 07                                  | 20.00                   | 80.00                   | 100.00      | 20.00           | 20.00                | 20.00                        | 20.00                |
| 08                                  | 14.00                   | 78.00                   | 92.00       | 20.00           | 18.00                | 20.00                        | 20.00                |
| 09                                  | 12.00                   | 58.00                   | 70.00       | 16.00           | 14.00                | 12.00                        | 16.00                |
| 10                                  | 7.00                    | 73.00                   | 80.00       | 18.00           | 18.00                | 17.00                        | 20.00                |

Table 7

Continued

| Teacher Number | Forced-Choice Score (A) | Teacher Image Score (B) | Total A & B | Personal Traits | Teacher Competencies | Student-Teacher Relationship | Classroom Management |
|----------------|-------------------------|-------------------------|-------------|-----------------|----------------------|------------------------------|----------------------|
| 11             | 13.00                   | 64.00                   | 77.00       | 16.00           | 17.00                | 16.00                        | 15.00                |
| 12             | 18.00                   | 67.00                   | 85.00       | 17.00           | 16.00                | 19.00                        | 15.00                |
| 13             | 18.00                   | 78.00                   | 96.00       | 20.00           | 18.00                | 20.00                        | 20.00                |
| 14             | 16.00                   | 75.00                   | 91.00       | 19.00           | 18.00                | 20.00                        | 18.00                |
| 15             | 16.00                   | 75.00                   | 91.00       | 19.00           | 19.00                | 19.00                        | 18.00                |
| 16             | 17.00                   | 72.00                   | 89.00       | 19.00           | 18.00                | 19.00                        | 16.00                |
| 17             | 16.00                   | 78.00                   | 94.00       | 20.00           | 19.00                | 20.00                        | 19.00                |
| 18             | 13.00                   | 77.00                   | 90.00       | 19.00           | 19.00                | 20.00                        | 19.00                |
| 19             | 11.00                   | 74.00                   | 85.00       | 19.00           | 18.00                | 18.00                        | 19.00                |
| 20             | 12.00                   | 63.00                   | 75.00       | 16.00           | 17.00                | 14.00                        | 16.00                |
| 21             | 11.00                   | 76.00                   | 87.00       | 18.00           | 20.00                | 18.00                        | 20.00                |
| 22             | 18.00                   | 62.00                   | 80.00       | 13.00           | 16.00                | 18.00                        | 15.00                |
| 24             | 17.00                   | 75.00                   | 92.00       | 20.00           | 17.00                | 20.00                        | 18.00                |

Table 7

Continued

| Teacher Number | Forced-Choice Score (A) | Teacher Image Score (B) | Total A & B | Personal Traits | Teacher Competencies | Student-Teacher Relationship | Classroom Management |
|----------------|-------------------------|-------------------------|-------------|-----------------|----------------------|------------------------------|----------------------|
| 25             | 13.00                   | 74.00                   | 87.00       | 19.00           | 18.00                | 19.00                        | 18.00                |
| 28             | 16.00                   | 73.00                   | 89.00       | 19.00           | 17.00                | 20.00                        | 17.00                |
| 29             | 13.00                   | 74.00                   | 87.00       | 19.00           | 18.00                | 19.00                        | 18.00                |
| 30             | 17.00                   | 79.00                   | 96.00       | 20.00           | 20.00                | 20.00                        | 19.00                |
| 31             | 12.00                   | 71.00                   | 83.00       | 19.00           | 17.00                | 18.00                        | 17.00                |
| 32             | 13.00                   | 64.00                   | 77.00       | 18.00           | 15.00                | 16.00                        | 15.00                |
| 33             | 14.00                   | 76.00                   | 90.00       | 20.00           | 18.00                | 19.00                        | 19.00                |
| 35             | 18.00                   | 72.00                   | 90.00       | 18.00           | 18.00                | 18.00                        | 18.00                |
| 36             | 10.00                   | 56.00                   | 66.00       | 10.00           | 14.00                | 15.00                        | 17.00                |
| 37             | 18.00                   | 79.00                   | 97.00       | 20.00           | 20.00                | 20.00                        | 19.00                |
| 38             | 13.00                   | 74.00                   | 87.00       | 18.00           | 18.00                | 19.00                        | 19.00                |
| 40             | 11.00                   | 66.00                   | 77.00       | 15.00           | 16.00                | 18.00                        | 17.00                |
| 42             | 13.00                   | 65.00                   | 78.00       | 17.00           | 16.00                | 17.00                        | 15.00                |

Table 7

Continued

| Teacher<br>Number | Forced-<br>Choice<br>Score (A) | Teacher<br>Image<br>Score (B) | Total<br>A & B | Personal<br>Traits | Teacher<br>Competencies | Student-Teacher<br>Relationship | Classroom<br>Management |
|-------------------|--------------------------------|-------------------------------|----------------|--------------------|-------------------------|---------------------------------|-------------------------|
| 44                | 17.00                          | 77.00                         | 94.00          | 19.00              | 20.00                   | 19.00                           | 19.00                   |
| 48                | 12.00                          | 68.00                         | 80.00          | 18.00              | 16.00                   | 18.00                           | 16.00                   |
| 50                | 17.00                          | 70.00                         | 87.00          | 19.00              | 16.00                   | 17.00                           | 18.00                   |

Table 8

Student Teacher Scores for Rating Scale  
College Supervisors

| Teacher<br>Number | Forced-<br>Choice<br>Score (A) | Teacher<br>Image<br>Score (B) | Total<br>A & B | Category Breakdown of Teacher Image |                         |                                 |                         |
|-------------------|--------------------------------|-------------------------------|----------------|-------------------------------------|-------------------------|---------------------------------|-------------------------|
|                   |                                |                               |                | Personal<br>Traits                  | Teacher<br>Competencies | Student-Teacher<br>Relationship | Classroom<br>Management |
| 01                | 15.00                          | 70.00                         | 85.00          | 17.00                               | 17.00                   | 19.00                           | 17.00                   |
| 02                | 19.00                          | 73.00                         | 92.00          | 18.00                               | 17.00                   | 20.00                           | 18.00                   |
| 03                | 18.00                          | 70.00                         | 88.00          | 17.00                               | 17.00                   | 18.00                           | 18.00                   |
| 04                | 11.00                          | 64.00                         | 75.00          | 16.00                               | 16.00                   | 16.00                           | 16.00                   |
| 05                | 20.00                          | 71.00                         | 91.00          | 18.00                               | 17.00                   | 19.00                           | 17.00                   |
| 06                | 15.00                          | 62.00                         | 77.00          | 16.00                               | 16.00                   | 17.00                           | 13.00                   |
| 07                | 15.00                          | 72.00                         | 87.00          | 18.00                               | 18.00                   | 19.00                           | 17.00                   |
| 08                | 17.00                          | 71.00                         | 88.00          | 19.00                               | 18.00                   | 16.00                           | 18.00                   |
| 09                | 14.00                          | 71.00                         | 85.00          | 18.00                               | 19.00                   | 18.00                           | 16.00                   |
| 10                | 14.00                          | 79.00                         | 93.00          | 19.00                               | 20.00                   | 20.00                           | 20.00                   |

Table 8

Continued

| Teacher<br>Number | Forced-<br>Choice<br>Score (A) | Teacher<br>Image<br>Score (B) | Total<br>A & B | Personal<br>Traits | Teacher<br>Competencies | Student-Teacher<br>Relationship | Classroom<br>Management |
|-------------------|--------------------------------|-------------------------------|----------------|--------------------|-------------------------|---------------------------------|-------------------------|
| 11                | 18.00                          | 12.00                         | 90.00          | 18.00              | 18.00                   | 20.00                           | 16.00                   |
| 12                | 16.00                          | 62.00                         | 78.00          | 15.00              | 16.00                   | 15.00                           | 16.00                   |
| 13                | 19.00                          | 80.00                         | 99.00          | 20.00              | 20.00                   | 20.00                           | 20.00                   |
| 14                | 18.00                          | 76.00                         | 94.00          | 19.00              | 18.00                   | 20.00                           | 19.00                   |
| 15                | 14.00                          | 75.00                         | 89.00          | 15.00              | 20.00                   | 20.00                           | 20.00                   |
| 16                | 15.00                          | 66.00                         | 81.00          | 17.00              | 16.00                   | 17.00                           | 16.00                   |
| 17                | 19.00                          | 76.00                         | 95.00          | 20.00              | 19.00                   | 20.00                           | 17.00                   |
| 18                | 18.00                          | 75.00                         | 93.00          | 20.00              | 17.00                   | 19.00                           | 19.00                   |
| 19                | 20.00                          | 74.00                         | 94.00          | 19.00              | 18.00                   | 20.00                           | 17.00                   |
| 20                | 16.00                          | 74.00                         | 90.00          | 18.00              | 19.00                   | 19.00                           | 18.00                   |
| 21                | 19.00                          | 80.00                         | 99.00          | 20.00              | 20.00                   | 20.00                           | 20.00                   |
| 22                | 11.00                          | 74.00                         | 85.00          | 18.00              | 17.00                   | 20.00                           | 19.00                   |
| 24                | 19.00                          | 77.00                         | 96.00          | 20.00              | 19.00                   | 20.00                           | 18.00                   |

Table 8

Continued

| Teacher<br>Number | Forced-<br>Choice<br>Score (A) | Teacher<br>Image<br>Score (B) | Total<br>A & B | Personal<br>Traits | Teacher<br>Competencies | Student-Teacher<br>Relationship | Classroom<br>Management |
|-------------------|--------------------------------|-------------------------------|----------------|--------------------|-------------------------|---------------------------------|-------------------------|
| 25                | 16.00                          | 74.00                         | 90.00          | 18.00              | 18.00                   | 19.00                           | 19.00                   |
| 26                | 16.00                          | 71.00                         | 87.00          | 16.00              | 17.00                   | 19.00                           | 19.00                   |
| 27                | 10.00                          | 64.00                         | 74.00          | 15.00              | 16.00                   | 17.00                           | 16.00                   |
| 28                | 18.00                          | 73.00                         | 91.00          | 18.00              | 18.00                   | 20.00                           | 17.00                   |
| 29                | 15.00                          | 73.00                         | 88.00          | 18.00              | 18.00                   | 20.00                           | 17.00                   |
| 30                | 13.00                          | 77.00                         | 90.00          | 20.00              | 20.00                   | 19.00                           | 18.00                   |
| 31                | 11.00                          | 74.00                         | 85.00          | 18.00              | 17.00                   | 20.00                           | 19.00                   |
| 32                | 18.00                          | 71.00                         | 89.00          | 18.00              | 16.00                   | 17.00                           | 20.00                   |
| 33                | 17.00                          | 73.00                         | 90.00          | 18.00              | 18.00                   | 20.00                           | 17.00                   |
| 34                | 9.00                           | 70.00                         | 79.00          | 18.00              | 16.00                   | 18.00                           | 18.00                   |
| 35                | 16.00                          | 73.00                         | 89.00          | 17.00              | 18.00                   | 18.00                           | 20.00                   |
| 36                | 15.00                          | 70.00                         | 85.00          | 18.00              | 16.00                   | 16.00                           | 20.00                   |

Table 8

Continued

| Teacher<br>Number | Forced-<br>Choice<br>Score (A) | Teacher<br>Image<br>Score (B) | Total<br>A & B | Personal<br>Traits | Teacher<br>Competencies | Student-Teacher<br>Relationship | Classroom<br>Management |
|-------------------|--------------------------------|-------------------------------|----------------|--------------------|-------------------------|---------------------------------|-------------------------|
| 37                | 14.00                          | 68.00                         | 82.00          | 18.00              | 14.00                   | 18.00                           | 18.00                   |
| 38                | 12.00                          | 74.00                         | 86.00          | 18.00              | 18.00                   | 20.00                           | 18.00                   |
| 40                | 20.00                          | 76.00                         | 96.00          | 19.00              | 19.00                   | 20.00                           | 18.00                   |
| 42                | 15.00                          | 65.00                         | 80.00          | 18.00              | 13.00                   | 18.00                           | 16.00                   |
| 44                | 17.00                          | 68.00                         | 85.00          | 17.00              | 16.00                   | 19.00                           | 16.00                   |
| 48                | 18.00                          | 67.00                         | 85.00          | 17.00              | 16.00                   | 18.00                           | 16.00                   |
| 50                | 17.00                          | 75.00                         | 92.00          | 18.00              | 18.00                   | 19.00                           | 20.00                   |
| 52                | 20.00                          | 74.00                         | 94.00          | 18.00              | 17.00                   | 20.00                           | 19.00                   |

score calculated from the total of the four diagnostic categories scores. From this point the graph illustrates the relative weight about the mean for each of the four diagnostic categories.

The higher mean base line score indicated a higher student teacher overall rating. The straighter the graph, the smaller the student teacher scores fluxuated by category. Visual inspection of these graphs indicated how each student teacher was rated by the three evaluators. Further statistical calculation was accomplished to test the hypothesis stated in chapter III and will be further discussed in this chapter under specific topics.

#### Experimental Group Versus Control Group Total Rating Scores

The student teacher population was divided into an experimental and control group by the prerandomization process discussed in Chapter III. The experimental group received the benefit of student feedback from the diagnostic questionnaire administered during the fourth week of student teaching and follow-up discussions in the three peer group counseling sessions. The null Hypothesis of  $H_{02}$  stated that no significant difference would exist in the total rating scores of these two groups. To determine if the two groups of rating scores differed significantly, a t test was calculated using the total rating scale scores consisting of the forced-choice (Part A) and teacher image (Part B). Two teachers' numbers 27 and 33 were removed from the experimental group since they failed to meet the requirements of administering both the diagnostic questionnaire and student teacher rating scale.

The final two groups contained a total of 42 student teachers, 18 in the experimental group and 24 in the control group. Both groups represented senior high and middle school placements.

The calculated  $t$  value of  $-1.29$  was below  $2.021$  critical value with 40 degrees of freedom required for significance at the  $.05$  level. Therefore, it was concluded that there is no reason to suspect that these two groups differed significantly on the total scores.

Rating scale  $t$  values were also calculated for Part A and Part B. These calculated values also failed to show a significant difference between Student Teacher Rating Scale scores received by the experimental Group A and those received by the control Group B. Table 9 illustrates a composite of the rating scale parts and the associated statistical scores.

#### Student Category Analysis of Student Teacher Rating Scale

The teacher image section (Part B) of the Student Teacher Rating Scale contained 16 items for evaluating student teacher behavior. These 16 items were designed to reflect the same four diagnostic categories as the Student Teacher Diagnostic Questionnaire which were: (1) personal traits, (2) professional competence, (3) student teacher-relationship, (4) classroom management.

This data reflected the category scores received by both the control and experimental group. To determine if significant differences existed in the mean category scores of the experimental and control groups, a repeated measures one-way analysis of variance

Table 9

Student Teacher Rating Scale Summary Statistics  
for Experimental and Control Groups

| Groups                | Number<br>of Cases | Mean    | Standard<br>Deviation | Standard<br>Error | t<br>Value |
|-----------------------|--------------------|---------|-----------------------|-------------------|------------|
| Forced Choice Section |                    |         |                       |                   |            |
| Experimental          | 18                 | 13.1311 | 0.828                 | 0.195             | -0.10      |
| Control               | 24                 | 13.1587 | 0.996                 | 0.203             |            |
| Teacher Image Section |                    |         |                       |                   |            |
| Experimental          | 18                 | 65.6138 | 3.876                 | 0.914             | -1.64      |
| Control               | 24                 | 67.7282 | 4.330                 | 0.884             |            |
| Total Score           |                    |         |                       |                   |            |
| Experimental          | 18                 | 78.9127 | 4.478                 | 1.055             | -1.29      |
| Control               | 24                 | 80.8445 | 5.005                 | 1.022             |            |

Degrees of Freedom = 40

was performed on each group. This statistical procedure was identical to that performed on the Student Teacher Diagnostic Questionnaire to determine category differences.

The control group F score of 14.7016 was above the 4.08 table value required for significance at the .01 level with 72 degrees of freedom. The Newman-Keuls procedure for testing the differences between pairs of means was then performed to determine which of the diagnostic categories were significantly different from the other categories. This data is shown in Table 10. All items exceeding the critical value for significance at the .01 level were marked with a double asterisk.

The results for the control groups showed significant differences in several categories. The total mean score for the personal traits category was rated significantly lower than the other three categories of professional competence, student teacher relationship and classroom management. Classroom management also obtained a total mean score significantly higher at the .01 level when compared to the categories of professional competence and student-teacher relationships.

The experimental groups' teacher image scores were submitted to the same statistical procedures as the control group. A repeated measures one-way analysis of variance again produced a significant F score of 7.5136 at the .01 level. The required table value for a significant F at the .01 level with 51 degrees of freedom is 4.20. Table 11 reports further analyzed experimental group data by diagnostic category indicating each category that exceeded the calculated

Table 10

## Rating Scale

Test on Differences Between Pairs of Means

Student Ratings Control Group

| CATEGORY                                                                          |         | Personal Traits<br>(1) | Professional Competence<br>(2) | Student-Teacher Relationship<br>(3) | Classroom Management<br>(4) |
|-----------------------------------------------------------------------------------|---------|------------------------|--------------------------------|-------------------------------------|-----------------------------|
|                                                                                   | N=25    |                        |                                |                                     |                             |
|                                                                                   | Totals  | 412.998                | 422.208                        | 422.598                             | 435.698                     |
| (1)                                                                               | 412.998 | ----                   | 9.210                          | 9.60                                | 22.7                        |
| (2)                                                                               | 422.208 | ----                   | ----                           | 0.39                                | 13.49                       |
| (3)                                                                               | 422.598 | ----                   | ----                           | ----                                | 13.10                       |
| (4)                                                                               | 435.698 | ----                   | ----                           | ----                                | ----                        |
| Studentized Range Statistic for .01 Level Significance with 72 Degrees of Freedom |         |                        | 3.76                           | 4.28                                | 4.60                        |
| Critical Value Requirements for Significance at the .01 Level                     |         |                        | 9.155                          | 10.422                              | 11.200                      |
| CATEGORY                                                                          |         | (1)                    | (2)                            | (3)                                 | (4)                         |
| (1)                                                                               |         | ----                   | **                             | **                                  | **                          |
| (2)                                                                               |         | ----                   | ----                           | ----                                | **                          |
| (3)                                                                               |         | ----                   | ----                           | ----                                | **                          |
| (4)                                                                               |         | ----                   | ----                           | ----                                | ----                        |

NOTE: \*\* Indicates items meeting critical value requirements for significance at .01 level.

Table 11  
Rating Scale  
Test on Differences Between Pairs of Means  
Student Ratings Experimental Group

|                                                                                         | CATEGORY | Personal<br>Traits<br>(1) | Student-Teacher<br>Relationship<br>(3) | Professional<br>Competence<br>(2) | Classroom<br>Management<br>(4) |
|-----------------------------------------------------------------------------------------|----------|---------------------------|----------------------------------------|-----------------------------------|--------------------------------|
|                                                                                         | N=18     |                           |                                        |                                   |                                |
|                                                                                         | Totals   | 286.560                   | 295.379                                | 298.639                           | 303.352                        |
| (1)                                                                                     | 286.560  | ----                      | 8.819                                  | 12.079                            | 16.792                         |
| (3)                                                                                     | 295.379  | ----                      | ----                                   | 3.26                              | 7.973                          |
| (2)                                                                                     | 298.639  | ----                      | ----                                   | ----                              | 4.713                          |
| (4)                                                                                     | 303.352  | ----                      | ----                                   | ----                              | ----                           |
| Studentized Range Statistic<br>for .01 Level Significance<br>with 51 Degrees of Freedom |          |                           | 3.82                                   | 4.37                              | 4.70                           |
| Critical Value Requirements<br>for Significance at the .01<br>Level                     |          |                           | 9.951                                  | 11.38                             | 12.243                         |
|                                                                                         | CATEGORY | (1)                       | (3)                                    | (2)                               | (4)                            |
|                                                                                         | (1)      | ----                      | ----                                   | **                                | **                             |
|                                                                                         | (3)      | ----                      | ----                                   | ----                              | ----                           |
|                                                                                         | (2)      | ----                      | ----                                   | ----                              | ----                           |
|                                                                                         | (4)      | ----                      | ----                                   | ----                              | ----                           |

NOTE: \*\* Indicates items meeting critical value requirements for significance at .01 level.

critical value with a double asterisk.

The experimental groups personal traits category differed significantly from the categories of professional competence and classroom management. All other categories showed no significant differences in their total mean scores.

The null Hypothesis  $H_{03}$  was rejected for both the experimental and control groups since differences were found in various diagnostic categories. The number of areas of significant category differences declined for the experimental group whereas, the control groups total mean differences were similar to those of the experimental groups diagnostic questionnaire category differences. This data appeared to indicate that the group counseling session decreased the experimental groups category variance, even though, the process failed to increase the experimental groups total student rating to a significant level when compared to the control group. Further analysis of these differences will be discussed in Chapter V.

Table 12 combines the scores received by both the control and experimental groups. Hypothesis  $H_{03}$  was again rejected since category differences did exist. The repeated measures one-way analysis of variance produced significant F score of 20.934. The Table F required for significance at the .01 level with 126 degrees of freedom is 3.94.

The personal traits category was rated significantly lower than the three other diagnostic categories. Classroom

Table 12

## Rating Scale

Test on Differences Between Pairs of Means

## Total Student Ratings

| CATEGORY                                                                           |         |                     |                                  |                             |                          |
|------------------------------------------------------------------------------------|---------|---------------------|----------------------------------|-----------------------------|--------------------------|
|                                                                                    | N=43    | Personal Traits (1) | Student-Teacher Relationship (3) | Professional Competence (2) | Classroom Management (4) |
|                                                                                    | Totals  | 699.556             | 717.977                          | 720.846                     | 739.216                  |
| (1)                                                                                | 699.556 | -----               | 18.421                           | 21.29                       | 39.66                    |
| (3)                                                                                | 717.977 | -----               | -----                            | 2.869                       | 21.239                   |
| (2)                                                                                | 720.846 | -----               | -----                            | -----                       | 18.37                    |
| (4)                                                                                | 739.216 | -----               | -----                            | -----                       | -----                    |
| Studentized Range Statistic for .01 Level Significance with 126 Degrees of Freedom |         |                     | 3.70                             | 4.20                        | 4.50                     |
| Critical Value Requirements for Significance at the .01 Level                      |         |                     | 13.12                            | 14.90                       | 15.966                   |
| CATEGORY                                                                           |         | (1)                 | (3)                              | (2)                         | (4)                      |
| (1)                                                                                |         | -----               | **                               | **                          | **                       |
| (3)                                                                                |         | -----               | -----                            | -----                       | **                       |
| (2)                                                                                |         | -----               | -----                            | -----                       | **                       |
| (4)                                                                                |         | -----               | -----                            | -----                       |                          |

NOTE: \*\* Indicates items meeting critical value requirements for significance at .01 level.

management in addition to ranking higher than personal traits also ranked significantly higher than the professional competence and student-teacher relationship categories. Hypothesis  $H_{03}$  was rejected for the third time. The Student Teacher Rating Scale scores produced differences in category ratings received by student teachers in the experimental, control and combined groups.

#### Supervisory Personnel Category Analysis

The university supervisor and cooperating teachers completed rating scales on their assigned student teachers. The identical statistical procedures were performed on this data as was performed upon the experimental and control group data. Supervisory personnel analysis of data was limited only to the total student teacher population and did not consider category differences in supervisory ratings of the experimental and control groups. The major reason for this exclusion was supervisory personnel were not involved in completing the diagnostic questionnaire or counseling session.

The evaluation of student teachers by the university supervisors showed significant difference in diagnostic category ratings. The computed  $F$  value of 10.4893 was significant at the .01 level with 126 degrees of freedom. The results of Newman-Keuls process for determining the differences between pairs of means is summarized in Table 13. Student-teacher relationship was the only category rated by university supervisors significantly higher than any other category. All other categories showed no

Table 13

## Rating Scale

Test on Differences Between Pairs of Means

University Supervisor Ratings

|                                                                                          | CATEGORY | Professional<br>Competence<br>(2) | Classroom<br>Management<br>(4) | Personal<br>Traits<br>(1) | Student-Teacher<br>Relationship<br>(3) |
|------------------------------------------------------------------------------------------|----------|-----------------------------------|--------------------------------|---------------------------|----------------------------------------|
|                                                                                          | N=43     |                                   |                                |                           |                                        |
|                                                                                          | Totals   | 751.00                            | 766.00                         | 770.00                    | 807.00                                 |
| (2)                                                                                      | 751.00   | -----                             | 15.0                           | 19.0                      | 56.0                                   |
| (4)                                                                                      | 766.00   | -----                             | -----                          | 4.0                       | 41.0                                   |
| (1)                                                                                      | 770.00   | -----                             | -----                          | -----                     | 37.                                    |
| (3)                                                                                      | 807.00   | -----                             | -----                          | -----                     | -----                                  |
| Studentized Range Statistic<br>for .01 Level Significance<br>with 126 Degrees of Freedom |          |                                   | 3.70                           | 4.20                      | 4.50                                   |
| Critical Value Requirements<br>for Significance at the .01<br>Level                      |          |                                   | 27.171                         | 30.84                     | 33.046                                 |
|                                                                                          | CATEGORY | (2)                               | (4)                            | (1)                       | (3)                                    |
|                                                                                          | (2)      | -----                             | -----                          | -----                     | **                                     |
|                                                                                          | (4)      | -----                             | -----                          | -----                     | **                                     |
|                                                                                          | (1)      | -----                             | -----                          | -----                     | **                                     |
|                                                                                          | (3)      | -----                             | -----                          | -----                     |                                        |

NOTE: \*\* Indicates items meeting critical value requirements for  
significance at .01 level.

significant difference in their total mean scores. Hypothesis  $H_{05}$  was also rejected for university supervisors ratings.

The cooperating teacher F score of 2.5315 was less than 3.98 F table value required for significance at the .05 level with 114 degrees of freedom. The null Hypothesis  $H_{07}$  was sustained for the cooperating teachers since no significant differences was reflected in the data. Table 14 summarizing the Newman-Keuls test is provided for continuity even though no significant difference existed in the cooperating teachers total mean scores.

The overall category mean scores for each group of evaluators was students 16.7302, university supervisor 17.9883 and cooperating teachers 17.9871.

#### Forced Choice Scores Versus Teacher Image Scores

The Student Teacher Rating Scale incorporated two different methods of rating. The first part utilized a forced choice section which forced students to select from a predetermined set of evaluation factors. Section two provided the evaluator a freedom of choice to assign any value from A to E to each factor of 16 items. This study attempted to determine if all three evaluators, students, cooperating teachers and college supervisors would assign similar ratings to student teachers on both parts of the rating scale. Thirty-eight of 43 student teachers were evaluated by all three groups of evaluators.

The null Hypotheses to be tested  $H_{07}$ ,  $H_{08}$ ,  $H_{09}$  were similar for all three evaluators. These Hypotheses indicated that the

Table 14

## Rating Scale

Test on Differences Between Pairs of Means

## Cooperating Teachers Ratings

| CATEGORY                                                                                 |        | Professional<br>Competence<br>(2) | Classroom<br>Management<br>(4) | Personal<br>Traits<br>(1) | Student-Teacher<br>Relationship<br>(3) |
|------------------------------------------------------------------------------------------|--------|-----------------------------------|--------------------------------|---------------------------|----------------------------------------|
| N=39                                                                                     |        |                                   |                                |                           |                                        |
| Totals                                                                                   |        | 689.000                           | 695.00                         | 708.00                    | 714.00                                 |
| (2)                                                                                      | 689.00 | -----                             | 6.00                           | 19.00                     | 25.00                                  |
| (4)                                                                                      | 695.00 | -----                             | -----                          | 13.00                     | 19.00                                  |
| (1)                                                                                      | 708.00 | -----                             | -----                          | -----                     | 6.00                                   |
| (3)                                                                                      | 714.00 | -----                             | -----                          | -----                     | -----                                  |
| Studentized Range Statistic<br>for .01 Level Significance<br>with 114 Degrees of Freedom |        |                                   | 3.76                           | 4.28                      | 4.60                                   |
| Critical Value Requirements<br>for Significance at the .01<br>Level                      |        |                                   | 27.185                         | 30.945                    | 33.258                                 |
| CATEGORY                                                                                 |        | (2)                               | (4)                            | (1)                       | (3)                                    |
| (2)                                                                                      |        | -----                             | -----                          | -----                     | -----                                  |
| (4)                                                                                      |        | -----                             | -----                          | -----                     | -----                                  |
| (1)                                                                                      |        | -----                             | -----                          | -----                     | -----                                  |
| (3)                                                                                      |        | -----                             | -----                          | -----                     | -----                                  |

NOTE: \*\* Indicates items meeting critical value requirements for significance at .01 level.

rating scales total scores would show no significant correlation between the forced-choice section (Part A) and teacher image section (Part B) of the Student Teacher Rating Scale.

Product moment correlation was calculated. The students  $r$  value of .667295 indicated a significant correlation at the .01 level with 37 degrees of freedom. The null Hypothesis  $H_{07}$  was rejected in favor of the alternative hypothesis for student evaluators. The supervisors  $r$  value of -.013749 was less than the value required for a significant correlation level. Therefore, the null Hypothesis  $H_{08}$  was sustained for supervisors. The cooperating teachers  $r$  value of .399138 also met the correlation requirement for significance at the .01 level. The null Hypothesis  $H_{09}$  was rejected and the alternate hypothesis accepted for cooperating teachers.

#### Grade Level Ratings

The student teachers in this study were assigned to both middle and senior high levels. A total of 43 student teachers participated in the final evaluation process. Eighteen of these teachers were assigned to middle schools and 25 were assigned to senior high schools. In reviewing the literature associated with teacher evaluation, previous researchers indicated a need to determine if students in grade levels below the senior high school would provide teacher rating scores significantly different than students at higher grade levels. Grade level assignment was also a matching consideration with equal numbers of middle and senior high student teachers assigned to

the control and experimental groups.

The null Hypothesis  $H_{010}$  stated no significant difference would exist between middle and senior high school rating of student teachers. A t test was computed to test this hypothesis with the results presented in Table 15. Hypothesis  $H_{010}$  was sustained since the calculated t values for the forced choice (Part A), teacher image (Part B), and Total (Part A & B) of the Student Rating Scale were below the 2.021 value required for significance at the .05 level with 41 degrees of freedom.

#### Quality Cumulative Average Versus Teacher Rating

Each student teacher was ranked according to his quality cumulative average. The quality cumulative average was a second matching consideration in determining student teacher placement into either the control or experimental groups. Researchers such as Dalton (1971) also indicated that grades were the best predictor of success in absence of other criteria.

The null Hypothesis  $H_{011}$  stated that no significant difference would exist between the upper and lower half of the student teachers when ranked by quality cumulative average. Table 16 illustrates the findings when a t test was conducted. According to the data presented the null hypothesis was sustained. Table 16 shows no significant difference in the total score or its associated parts.

To further determine the significance of college grades in relationship to student ratings a t test was conducted between the student teachers with the top ten quality cumulative

Table 15

Student Teacher Rating Scale Summary Statistics  
for Middle and Senior High Groups

| Groups                | Number<br>of Cases | Mean    | Standard<br>Deviation | Standard<br>Error | T<br>Value |
|-----------------------|--------------------|---------|-----------------------|-------------------|------------|
| Forced Choice Section |                    |         |                       |                   |            |
| Middle                | 18                 | 13.1678 | 0.947                 | 0.223             | 0.16       |
| Senior                | 25                 | 13.1216 | 0.896                 | 0.179             |            |
| Teacher Image Section |                    |         |                       |                   |            |
| Middle                | 18                 | 67.4060 | 4.105                 | 0.968             | 0.70       |
| Senior                | 25                 | 66.4931 | 4.294                 | 0.859             |            |
| Total Score           |                    |         |                       |                   |            |
| Middle                | 18                 | 80.7399 | 4.749                 | 1.119             | 0.78       |
| Senior                | 25                 | 79.5751 | 4.837                 | 0.967             |            |

Degrees of Freedom = 40

Table 16

## Student Teacher Rating Scale Summary Statistics

## High and Low Quality Cumulative Average Groups

| Groups                | Number<br>of Cases | Mean    | Standard<br>Deviation | Standard<br>Error | T<br>Value |
|-----------------------|--------------------|---------|-----------------------|-------------------|------------|
| Forced Choice Section |                    |         |                       |                   |            |
| High                  | 21                 | 13.4343 | 0.817                 | 0.178             | 2.16       |
| Low                   | 22                 | 12.8609 | 0.918                 | 0.196             |            |
| Teacher Image Section |                    |         |                       |                   |            |
| High                  | 21                 | 67.5056 | 4.165                 | 0.909             | 0.96       |
| Low                   | 22                 | 66.2735 | 4.222                 | 0.900             |            |
| Total Score           |                    |         |                       |                   |            |
| High                  | 21                 | 81.0347 | 4.472                 | 0.976             | 1.31       |
| Low                   | 22                 | 79.1349 | 4.978                 | 1.061             |            |

Degrees of Freedom = 41

averages and the bottom 10 averages. Although the  $t$  value increased the score failed to obtain a significant level. The data summarizing these results is contained in Table 17.

#### Data Analysis for All Evaluation Groups

All student teachers in this study were to be evaluated by students, university supervisors, and cooperating teachers. Thirty-eight of the 43 instructors met the requirements of being evaluated by all three groups. To determine the relationship between the evaluation groups scores a correlation matrix was completed. The result of this matrix are summarized in Table 18.

All three of the evaluators  $r$  scores on the total evaluation showed some positive correlation. The only two groups to obtain a significant positive correlation were the students and cooperating teachers. This calculated  $r$  value was significant at the .01 level. The other two pairings reflected positive correlations but remained below the significant level. The lowest correlation value existed between the students and university supervisors with the only negative  $r$  value occurring on the teacher image section.

Further analysis of the total mean scores shows that college supervisors and cooperating teachers tended to rank student teachers higher than students. This tendency was reflective of both the forced choice and teacher image parts of the Student Teacher Rating Scale.

In all cases there was a general tendency for all three groups of evaluators to utilize only the top three parts of the

Table 17

## Student Teacher Rating Scale Summary Statistics

Ten Highest versus Ten Lowest Quality Cumulative Average Groups

| Groups                | Number<br>of Cases | Mean    | Standard<br>Deviation | Standard<br>Error | T<br>Value |
|-----------------------|--------------------|---------|-----------------------|-------------------|------------|
| Forced Choice Section |                    |         |                       |                   |            |
| High                  | 10                 | 13.5890 | 0.680                 | 0.215             | 1.82       |
| Low                   | 10                 | 12.8170 | 1.155                 | 0.365             |            |
| Teacher Image Section |                    |         |                       |                   |            |
| High                  | 10                 | 67.7279 | 3.787                 | 1.198             | 1.31       |
| Low                   | 10                 | 65.2559 | 4.600                 | 1.455             |            |
| Total Score           |                    |         |                       |                   |            |
| High                  | 10                 | 81.6169 | 3.767                 | 1.191             | 1.66       |
| Low                   | 10                 | 78.0729 | 5.580                 | 1.764             |            |

Degrees of Freedom = 18

Table 18  
Correlational Data Between Three Groups of Evaluators

| Correlational Data                 |                          |                          |                        |
|------------------------------------|--------------------------|--------------------------|------------------------|
| Groups                             | Forced-choice<br>r value | Teacher image<br>r value | Total Scale<br>r value |
| Student-Supervisor                 | .045556                  | -0.112053                | .103260                |
| Student-Cooperating<br>Teacher     | .143522                  | .379221*                 | .423018**              |
| Cooperating Teacher-<br>Supervisor | .145662                  | .264649                  | .254355                |
| Total Mean Scores                  |                          |                          |                        |
| Groups                             | Forced-choice<br>mean    | Teacher image<br>mean    | Total score<br>mean    |
| Students                           | 13.1584                  | 66.8794                  | 80.0905                |
| Supervisor                         | 16.1842                  | 70.7368                  | 88.3421                |
| Cooperating Teacher                | 15.0526                  | 71.8421                  | 86.1842                |

N = 38

\*  $P < .05$

\*\*  $P < .01$

five part rating scale. Rarely did the student teacher receive a rating below C from any of the groups especially the cooperating teachers and supervisors.

#### Student Teacher Opinions Questionnaire

The student teachers assigned to the experimental group were given the opportunity to evaluate the diagnostic process. Seventeen student teachers returned the questionnaire. Frequency responses to specific questions were tabulated and provided in Table 19. No statistical procedures were performed on the data. Its inclusion in this study was done to assess the student teachers personal feelings about the evaluation and diagnostic process.

#### Summary of Statistical Procedures and Test Scores

The data obtained from both the Student Teacher Questionnaire and the Student Teacher Rating Scale were discussed in this chapter. The proper statistical procedures were incorporated to determine the acceptance or rejection of the null hypotheses, they were a repeated measures one-way analysis of variance, t test, and a product moment correlation. The Newman-Keuls procedure for determining the difference between pairs of means was incorporated to determine the significant difference existing between the diagnostic categories.

The Student Teacher Diagnostic Questionnaire showed significant differences in the four diagnostic categories. This trend also existed in the Student Teacher Rating Scale for the

TABLE 19  
Frequency Tabulation of  
Student Teacher Opinion Questionnaire

| Questions                                                                                                              | SA | A  | N | DA | SDA |
|------------------------------------------------------------------------------------------------------------------------|----|----|---|----|-----|
| 1. Students should evaluate teachers...                                                                                | 9  | 7  | 1 | 0  | 0   |
| 2. The student diagnostic evaluation was an accurate reflection of me as a student-teacher.....                        | 0  | 9  | 5 | 2  | 1   |
| 3. I did not feel threatened by the students evaluation of me.....                                                     | 6  | 10 | 1 | 0  | 0   |
| 4. The diagnostic categories were a fair representation of necessary items for successful teaching.....                | 2  | 10 | 4 | 0  | 1   |
| 5. The group sessions should not be an active part of the student teaching program.....                                | 4  | 0  | 1 | 8  | 3   |
| 6. The group sessions provided valuable insights into my student teaching experience.....                              | 6  | 7  | 3 | 0  | 1   |
| 7. The students accurately evaluate me as an instructor.....                                                           | 1  | 11 | 3 | 1  | 1   |
| 8. The student evaluation process contributed little to my student teaching experience.....                            | 0  | 0  | 6 | 9  | 2   |
| 9. The group sessions were sufficient in length and number.....                                                        | 1  | 5  | 5 | 5  | 1   |
| 10. I would recommend that <u>this</u> evaluation process become a standard part of this student teaching program..... | 4  | 8  | 4 | 1  | 0   |

## CODE:

- SA - Strongly agree  
A - Agree  
N - Neutral  
Da - Disagree  
SDA - Strongly disagree

student teachers in the control group evaluated by students and the diagnostic category scores given by university supervisors. Cooperating teachers showed no category differences and the experimental group total mean differences only existed between the categories of classroom management and professional competence.

The group counseling session appeared to have contributed to the experimental groups having small fluctuations between diagnostic categories even though the process did not result to higher overall scores for the experimental group. Further analysis to this data will be discussed in Chapter V.

The results of a t test showed no significant difference in the teacher ratings given by middle school students when compared to teacher rating given by high school students. Further review of the data indicated student teachers with the higher college grades did not receive the highest ratings by students. Some tendency did exist for students to give student teachers with higher college grades higher scores on the Rating Scale but these findings were below the .05 significance level.

Correlational studies were conducted to determine if a significant correlation could be formed between the three groups of evaluators. This statistical procedure was used to determine the degree and direction of correlation between (Part A), forced-choice section and (Part B) teacher image section of the Student Teacher Rating Scale.

The scores from all evaluators tended to correlate

positively although only the correlation between scores of the students and cooperating teachers reached significance at the .05 level. Part A and Part B of the rating scale showed no significant relationship between scores for any groups of evaluators.

All hypotheses were stated in the null form. The following fourteen hypotheses are restated indicating whether they were rejected or not by the data collected in this study:

Hypothesis Ho<sub>1</sub>:

The student teacher diagnostic questionnaire will show no significant difference in students' ratings of student teachers by diagnostic categories

REJECTED

Hypothesis Ho<sub>2</sub>:

Students' total ratings of student teachers will show no significant difference between the control group receiving no feedback and experimental group receiving student feedback.

FAILED TO REJECT

Hypothesis Ho<sub>3</sub>:

Student category ratings of student teachers will show no significant difference between the control group receiving no student feedback and experimental group receiving student feedback.

REJECTED

Hypothesis Ho<sub>4</sub>:

The Student Teacher Rating Scale will show no significant difference in students' ratings of student teachers by diagnostic categories.

REJECTED

Hypothesis Ho<sub>5</sub>:

The Student Teacher Rating Scale will show no significant difference in university supervisor ratings of student teachers by diagnostic categories.

REJECTED

Hypothesis Ho<sub>6</sub>:

The Student Teacher Rating Scale will show no significant difference in cooperating teachers ratings of student teachers by diagnostic categories.

FAILED TO REJECT

Hypothesis Ho<sub>7</sub>:

Student ratings of industrial arts student teachers will show no significant difference between Part A the forced choice section and Part B the teacher image section of the student teacher rating scale.

REJECTED

Hypothesis Ho<sub>8</sub>:

University supervisor ratings of industrial arts student teachers will show no significant difference between Part A

the forced choice section and Part B the teacher image section of the Student Teacher Rating Scale.

FAILED TO REJECT

Hypothesis Ho<sub>9</sub>:

Cooperating teacher ratings of industrial arts student teachers will show no significant difference between Part A the forced choice section and Part B the teacher image section of the Student Teacher Rating Scale.

REJECTED

Hypothesis Ho<sub>10</sub>:

There will be no significant difference in middle school students and senior high students final ratings of their industrial arts student teachers.

FAILED TO REJECT

Hypothesis Ho<sub>11</sub>:

No significant difference in industrial arts student teachers ratings by secondary students will exist between the upper-half of the industrial arts student teachers and the lower-half of student teachers assigned to the fall quarter 1975 and the winter quarter 1976.

FAILED TO REJECT

Hypothesis Ho<sub>12</sub>:

No significant difference will exist between the supervisory rating and student ratings of industrial arts teachers.

FAILED TO REJECT

Hypothesis Ho<sub>13</sub>:

No significant difference will exist between the cooperating teachers rating and student ratings of industrial arts teachers.

REJECTED

Hypothesis Ho<sub>14</sub>:

No significant difference will exist between the cooperating teachers rating and supervisory ratings of industrial arts teachers.

FAILED TO REJECT

## CHAPTER V

### Summary, Conclusions and Recommendations

Teacher evaluation is a fundamental element in the educational process. This process like many other phases of education has constantly changed over the past century. Even with this changing era the idea of client centered evaluation has failed to develop sufficiently to be considered a major part of the teacher developmental and growth process.

Recent trends in teacher evaluation such as the Mazoo Project used students' evaluations. Many colleges and universities actively incorporate student evaluations in promotional considerations of professors. The continual development of teacher evaluation data through the incorporation of more reliable instruments could open the door to the increasing use of students in assessing the educational environment.

This study attempted to modify existing proven rating scales for the specific evaluation of student teachers in the industrial arts area. The Purdue Instructor Indicator and the Western Michigan Teacher Image rating scales had proven reliability. Minor modifications made these evaluation instruments more subject oriented than the original documents. The total diagnostic and evaluation process incorporated both the forced choice and Likert type evaluation scales.

The need for continual research in teacher evaluation is obvious. More recent trends in having teachers and administrators

establish teacher behavioral and performance objectives collectively created the need for further research into the method of evaluating outcomes. The beginning teacher's teaching traits and characteristics are extremely important to the local administrator assigned to the responsibility of establishing inservice programs for teacher improvement. Only through the process of research and evaluation can workshops be designed to effectively improve the beginning teacher. Through studies such as this, general and specific teacher characteristics of strengths and weaknesses can be identified through student evaluation. Programs of counseling or inservice workshops can then be developed to minimize the teaching differences in a shorter period of time. The student teacher who is afforded this feedback process should be better prepared to determine his own behavioral objectives for teacher improvement, which is commensurate with recent evaluation trends.

The student teacher who has participated in the diagnostic evaluation and counseling process should be more adequately prepared to chart his own teacher improvement course. This evaluation and counseling process can also provide feedback during the time in the learning cycle when effective teacher change can most readily be accomplished. During this period in teacher preparation the student teacher is also provided access to the greatest amount of individual assistance and expertise. Furthermore, it appears to be logical to use all indicators in assessing the learning environment surrounding

a specific student teacher. The inclusion of student feedback is fundamental to this study.

#### Restating Question to be Answered

The null hypotheses in this study were developed from certain basic questions associated with teacher evaluations and performance. The following review of these questions is provided to assess the adequacy of the outcomes and conclusions of this study:

- (1) What are the profile characteristics of the student teaching environment as viewed by students, supervisors, and cooperating teachers incorporating a standard rating system?
- (2) Will continuity and uniformity exist between the three groups of evaluators?
- (3) Can significant changes be made in a student teacher diagnostic profile and overall student ratings utilizing diagnostic feedback in group counseling sessions?
- (4) How will the factor of student teacher quality cumulative average be related to the overall ratings of student teachers by students?
- (5) Will the overall ratings of high school and middle school students differ from the industrial arts student teaching group?
- (6) What similarities will exist between the forced choice rating scale and the teacher image scale?

The data to answer these questions was obtained by administering the Student Teacher Diagnostic Questionnaire and a Student Teacher Rating Scale. Appropriate statistical procedures were administered to the evaluation scores and conclusions drawn from the results. The conclusions will be discussed later in this chapter.

#### Review of Design Procedure

The design implemented in this study was the post test control group only method. Campbell and Stanley (1968) were the research source for final design selection. Their analysis of this design process appeared to be appropriate to the study under investigation. Equality of the groups was further ensured by matching subjects on two pertinent variables prior to random assignment to groups. These two matching variables were quality cumulative average and student teacher grade level placement. Following this procedure random placement of student teachers into either the control or experimental group was accomplished by rolling a die. Table 20 illustrates the final design model and utilization of rating instruments.

Although the control and experimental groups originally had equal number of student teachers scheduling various problems in administering the treatment required some group number adjustment. The final number composition of the experimental and control group was 18 and 24 respectively.

The group counseling process consisted of three sessions designed to analyze student feedback and provided for group

TABLE 20  
Review and Study Design

| Groups       | Matching<br>Process | Random<br>Assignment | Treatment                                                 | Evaluation<br>Process      |
|--------------|---------------------|----------------------|-----------------------------------------------------------|----------------------------|
| Control      | QCA<br>Grade Level  | Rolling<br>Die       | None                                                      | Teacher<br>Rating<br>Scale |
| Experimental | QCA<br>Grade Level  | Rolling<br>Die       | Diagnostic<br>Questionnaire<br>and<br>Group<br>Counseling | Teacher<br>Rating<br>Scale |

interpretation of the student teacher diagnostic results. The effects of the treatment process were evaluated by the administration of the Student Teacher Rating Scale to both groups. Statistical analysis of the results was accomplished by conducting a one way analysis of variance for repeated measures.

Additional hypotheses to be tested were associated with the prerandomization process and the evaluation instruments design. These hypotheses were tested by conducting t tests to determine if significant differences existed in student teacher's mean scores.

Since the student teaching process was evaluated by more than one evaluator, this study attempted to analyze the similarities and differences of these rating groups; student, university supervisors and cooperating teachers. The same rating instruments were completed by each group of evaluators and a correlational matrix was developed to analyze the inter-relationships.

The time element for conducting the research process was the fall quarter of 1975 and the winter quarter of 1976. Two classes of industrial arts student teachers participated in the rating process with a total student teacher involvement numbering 43. The student teaching session was twelve weeks in length with the experimental group's treatment procedure administered during the fourth week and follow-up by three counseling sessions in the remaining eight weeks. Final results were collected during the twelfth week of each session by administering the Student Teacher Rating Scale.

### Conclusions

The geographical base for this study focused on a broad range of student teaching placements throughout the state of Virginia. Implication of this generalized student teacher research should be appropriated to the industrial arts teaching programs throughout the state. Generalizations beyond the geographical area of this study may be inappropriate without further research. Based on the data the following conclusions are presented:

- (1) Group counseling and student feedback will not significantly create differences in the overall ratings of student teachers by students. The overall factors associated with the student rating scores of individual student teachers appeared to be associated with elements of the student teachers' personality. The factors may not be readily changeable to reflect increased overall rating in a short time period of twelve weeks.
- (2) The group counseling and student feedback procedure did significantly minimize the total mean diagnostic category differences for the experimental group. The final ratings of the experimental group provided only significant differences in the personal traits category when compared to the categories, professional

competence, and classroom management. These differences reflected a reduction in the number of category differences when compared to the Student Teacher Diagnostic Questionnaire results for the experimental group.

Further analysis of the data gathered from control group Student Teacher Rating Scale data showed a similar number of diagnostic category differences when compared to the experimental group Student Teacher Diagnostic Questionnaire data. The reduction in the experimental groups category differences of the rating scale could be attributed to the group counseling and feedback process.

A major evaluation premise associated with this study was that significant differences should not exist in any of the diagnostic categories to maximize an individual teacher's effectiveness. Each of the four diagnostic categories were necessary and essential to establish a conducive learning environment. If significant differences occurred, the teacher and the associated environment were not maximizing the industrial arts learning process for the students. The student teacher who maintained the highest overall rating and the straightest profile appeared to be the

better beginning teacher prospect.

The combined student teacher ratings by all students showed a significant difference occurring in the total mean scores between the category of personal traits and the other three diagnostic categories. Students rated this category significantly lower for both groups and on both rating instruments. The items associated with this category appear to be more difficult to change during the student teaching time element and in a limited group counseling process.

The combined total ratings for both student groups showed classroom management being ranked significantly higher than all other categories.

- (3) The university supervisors ranked only classroom management significantly higher than the other three diagnostic categories. The cooperating teachers showed no significant difference in their diagnostic category ratings of student teachers. The determination of the effects of the group counseling process for the total supervising group was not a consideration for this study. The findings of Swartz (1975) indicating that emphasis of teaching effectiveness is placed differently by different

evaluating groups appeared to be upheld in this study.

- (4) University supervisors and cooperating teachers rated student teachers higher than did the students. The data reflected a slight positive correlation between all three groups of evaluators. Only the cooperating and student ratings of student teachers correlated at a significant level.
- (5) The middle and senior high students appeared to rank student teachers in a similar manner.
- (6) Having a high undergraduate quality cumulative average was not a significant predictor of high ratings from students during the student teaching process. Other factors beside college grades appeared to have a greater influence on student ratings of student teachers. Knowledge of the student teachers' grades could attribute to some of the differences existing between supervisory personnel and student ratings of an individual student teacher.
- (7) The combination of rating systems such as the forced choice and Likert scale appeared to provide appropriate teacher evaluation procedures. Incorporating two evaluating systems could overcome the problem of students becoming bored with completing the same type of evaluation instrument.

### Recommendations for Future Study

This experiment should be replicated over a larger geographical sample of industrial arts student teachers. Additional studies of this nature need to be conducted in other vocational education areas having similar learning environments.

The time element of additional studies should be lengthened to determine the effect of longer teacher exposure on student ratings. Such studies conducted on internship programs may provide valuable information on the long term effects of student evaluations.

The Diagnostic Questionnaire incorporated in this study appeared to have the effect of broadening the knowledge base of student evaluators and thus increased student ability to assess the teaching environment. What would be the results of a study that utilized trained groups of student evaluators instead of entire classes?

No attempt was made to investigate the attitudes of parents, administrators, and other educators who were involved with the student teaching process. All educators usually have been involved in the student teaching process and should have ideas on how to improve its outcomes.

Parent evaluation of the teaching environment is rarely discussed in educational research. Some consideration should be given to conducting parent evaluations of the learning environment.

Certain personality characteristics in teachers appear to

be more important to influencing positive student behaviors.

Can these characteristics be readily identified in prospective freshman education majors? Will follow-up studies that include student evaluations provide higher student ratings for those types of individuals who exhibit these characteristic traits?

Information on student evaluation could assist administrators in the future selection of teachers. Surely a high student teacher evaluation from students would benefit the prospective job seeker. Information of this type could provide the focus for developing future education programs to meet specific individual teacher needs.

## APPENDIX A

LETTER TO SCHOOL PRINCIPALS

August 20, 1975

Mr. James C. Wood  
William Fleming High School  
3649 Cove Road, N.W.  
Roanoke, Virginia 24017

Dear Mr. Wood:

Virginia Polytechnic Institute and State University's (fall and winter quarters) industrial arts student teachers will be participating in a study designed to evaluate the effectiveness of student feedback in changing student teacher behavior. The study is being conducted under the guidance of Industrial Arts Program Leader, Dr. William Dugger, Jr. and myself. As a student teacher center, we are requesting your approval to utilize two classes of industrial arts students in this study. The only function the students will play is to complete a diagnostic questionnaire on their student teacher. This instrument requires only fifteen minutes to complete and is administered twice during the student teaching experience. All student responses will be anonymous and in no way be utilized in evaluating the student teacher. Your affirmative response to this request will provide valuable information in establishing future student teacher experiences.

For your convenience you need not respond to this letter, if we do not hear from you in two weeks we will assume that this request meets with your approval. If you require additional information please call me collect at (703) 361-4794. I will personally visit your school at a later date to thank you and answer any further questions regarding the study.

Yours truly,

Dr. William E. Dugger  
Program Area Leader

John E. Bonfadini  
Supervisor of Vocational Education  
Prince William County Schools

LETTER TO COOPERATING TEACHERS

August 20, 1975

Mr. Robert Warren  
Hidden Valley Int. School  
4901 Mt. Holland Drive  
Roanoke, Virginia 24018

Dear Mr. Warren:

The industrial arts student teachers, under Dr. Dugger's guidance, will be participating in a study designed to test the effectiveness of student input in changing teacher behavior. We are soliciting your cooperation as a cooperating teacher in assisting us with this study.

Enclosed is a copy of a letter sent to Mr. Lloyd Cannaday, explaining his role in the research. May I solicit your cooperation in providing time for Mr. Cannaday to teach the four required lessons and time to administer the appropriate evaluation devices. Dr. Dugger and I will be available to answer further questions should they arise. Please call me collect if you envision any problems in participating as a test center. My number is (703) 791-3113 ext. 203. I will attempt to visit you personally and explain all the necessary elements of the study. Thank you for your consideration.

Sincerely,

John E. Bonfadini  
Supervisor of Vocational Education

JEB/mes

Enclosure

INTRODUCTORY LETTER TO STUDENT-TEACHER  
GROUP A

August 21, 1975

Student-Teacher's Name  
School  
School's Address  
City, State Zip Code

Dear Student-Teacher:

During the Fall Quarter, 1975 and Winter Quarter, 1976, the Industrial Arts Department of Virginia Polytechnic Institute and State University, under Dr. Dugger's guidance and approval, will conduct a research experiment utilizing middle and high school student rating scales in evaluating student-teachers.

As the researcher of this project, I am requesting your cooperation as an active participant in the "A" group of this study. The individual teacher control group responsibilities are listed as follows:

- (1) Select two classes of students that you will teach for the entire twelve-week session and assign them a number (1) or (2).
- (2) Design four lesson plans to be presented to these classes during the first four weeks of the student teaching experience. An example format and subject is enclosed with this letter. Forward a copy of these lesson plans to me immediately before presentation. (Use enclosed form and envelope).
- (3) Conduct a student evaluation of the student teacher during the fourth week of the student teaching experience utilizing the student diagnostic rating device. Forward these results immediately to the researcher for scoring.

Page 2  
August 21, 1975

- (4) Meet with the researcher during the fifth week in a pre-determined location, appropriate to all individuals in your area, to participate in peer group consultation session. These sessions will be designed to discuss the results of the student diagnostic rating device.
- (5) Participate in continued "peer group sessions" during the seventh and ninth weeks of student teaching.
- (6) Conduct an evaluation activity at the conclusion of the student teaching experience and forward these results to the researcher. Additional instructions and materials will be provided at a later date to conduct this phase.

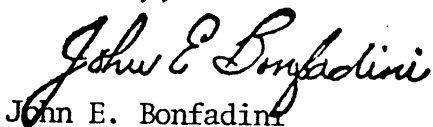
NOTE: Return envelopes and postage will be provided in all cases.

Any information gained in this study will be held in the strictest confidence and in no way will this material be utilized in the student-teacher formal evaluation procedure. All results will be reported by student-teacher numbers and no names will appear in any of the written literature. I will obviously provide individual and group results to those participants desiring such information.

Please return the enclosed personal information sheet with your assigned teacher number \_\_\_\_\_. I am requesting the use of this number on all written correspondence. For any additional information call collect at (703) 791-3113 ext. 203.

Thank you for your cooperation in this study.

Sincerely,



John E. Bonfadini  
Supervisor of Vocational Education

JEB/mes

Enclosures

INTRODUCTORY LETTER TO STUDENT-TEACHER  
GROUP B

August 21, 1975

Student-Teacher's Name  
School  
School's Address  
City, State Zip Code

Dear Student-Teacher:

During the Fall Quarter, 1975 and Winter Quarter, 1976, the Industrial Arts Department of Virginia Polytechnic Institute and State University, under Dr. Dugger's guidance and approval, will conduct a research experiment utilizing middle and high school student rating scales in evaluating student-teachers.

As the researcher of this project, I am requesting your cooperation as an active participant in the "B" group of this study. The individual teacher control group responsibilities are listed as follows:

- (1) Select two classes of students that you will teach for the entire twelve-week session and assign them a number (1) or (2).
- (2) Design four lesson plans to be presented to these classes during the first four weeks of the student teaching experience. An example format and subject is enclosed with this letter. Forward a copy of these lesson plans to me immediately before presentation. (Use enclosed form and envelope).
- (3) Conduct an evaluation activity at the conclusion of the student teaching experience and forward these results to the researcher. Additional instructions and materials will be provided at a later date to conduct this phase.

Page 2  
August 21, 1975

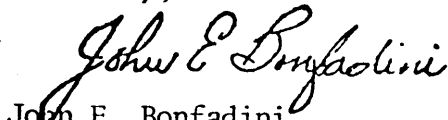
NOTE: Return envelopes and postage will be provided in all cases.

Any information gained in this study will be held in the strictest confidence and in no way will this material be utilized in the student-teacher formal evaluation procedure. All results will be reported by student-teacher numbers and no names will appear in any of the written literature. I will obviously provide individual and group results to those participants desiring such information.

Please return the enclosed personal information sheet with your assigned teacher number \_\_\_\_\_. I am requesting the use of this number on all written correspondence. For any additional information call collect at (703) 791-3113 ext. 203.

Thank you for your cooperation in this study.

Sincerely,

A handwritten signature in cursive script that reads "John E. Bonfadini".

John E. Bonfadini  
Supervisor of Vocational Education

JEB/mes

Enclosures

\_\_\_\_\_ Group Assignment  
 \_\_\_\_\_ Student Teacher Number

General Information Sheet

1. Student Teacher Name \_\_\_\_\_
2. Cooperating Teacher Name \_\_\_\_\_
3. School Name \_\_\_\_\_
4. School Type. . . Middle (Circle Appropriate Grades)  
                                 Junior High   6    7    8    9  
                                 Senior High   6    7    8    9  
                                                   9   10   11   12
5. School Address . . Street \_\_\_\_\_  
                                                   City \_\_\_\_\_  
                                                   Zip Code \_\_\_\_\_ Telephone \_\_\_\_\_
6. Student Teacher  
    Local Address . . Street \_\_\_\_\_  
                                                   City \_\_\_\_\_  
                                                   Zip Code \_\_\_\_\_ Telephone \_\_\_\_\_

- |                          | Number<br>Students | Class<br>Type      |                                        |
|--------------------------|--------------------|--------------------|----------------------------------------|
| 7. Class Selection # (1) | _____              | _____              | 6 7 8 9 10 11 12                       |
|                          |                    | Example:<br>Wood I | (Circle one or more<br>if appropriate) |
|                          | Number<br>Students | Class<br>Type      |                                        |
| Class Selection # (2)    | _____              | _____              | 6 7 8 9 10 11 12                       |
|                          |                    | Example:<br>Mfg. I | (Circle one or more<br>if appropriate) |

NOTE: Please return immediately to researcher in self-addressed envelope.  
 Thank you.

EXPLANATORY LETTER TO STUDENT-TEACHER  
GROUP A

September 6, 1975

Student-Teacher's Name  
School  
School's Address  
City, State Zip Code

Dear Student-Teacher:

I am writing this second note to apologize for not including a return postage stamp in my last letter to you. (Enclosed you will find a self-addressed, stamped envelope for your convenience in forwarding additional requests of this nature). Enclosed are copies of the teacher diagnostic questionnaire and instruction sheet for your two classes of students. Please read the instruction sheet and marked example. The marked copy is for your benefit so you may review and understand how the diagnostic questionnaire should be marked by the students.

The questionnaire contains ten sets, A through J, each set containing four items relating to the following four categories of teacher preparation: (1) personal appearance, (2) knowledge of subject, (3) pupil-teacher relationship, and (4) classroom management. The students are requested to mark each set in priority by utilizing letter grades A through D on the mark sense form. I have marked set A of your example copy to show you how each student should mark all ten sets. A transparency is included to assist you in reviewing the marking procedure with your classes.

In the example copy, item #1, "has neat appearance" is given top priority with an "A", item #3, "listens to pupils ideas" is given second priority and is graded "B", item #2, "knows subject matter" is given third priority and is graded "C", item #4, "maintains neat lab" is fourth priority and is graded "D". Each of the ten sets is marked accordingly. Check students' set A before instructing them to complete the following sets. Check all papers to verify that the student understands he is to use each letter grade only once in each set.

The diagnostic questionnaire should be completed on the 24th or 25th of September and mailed to me in the self-addressed envelope the following day. This will give me sufficient time to have the diagnostic information back to you for a meeting on October 6 in Northern Virginia. I will contact you later as to the exact time and place.

Your cooperation in having the students complete the diagnostic questionnaire will be greatly appreciated. I have completed the identification number except for the last two items in eight and nine; which are class number and whether the student is male or female. The instruction sheet will indicate how to complete these items.

Enclosed is a self-addressed, stamped envelope for your convenience in returning the questionnaires to me. Sorry for not including a stamp on our last correspondence. Oversight on my part.

Please call me collect if any questions should arise. Home: (703) 361-4794, work: (703) 791-3113 ext. 203.

Thank you.

Sincerely,

John E. Bonfadini  
Supervisor of Vocational Education

JEB/mes

Enclosures

REQUIRED LESSON FORMAT

The following information is a format for designing and presenting the four required lessons to be taught during the first four weeks of student teaching. Copies of these lessons should be forwarded to Mr. John Bonfadini immediately before each presentation.

Required lessons during first four weeks of teaching:

- Lesson #1 - Design a lesson relating to general safety procedures appropriate to your specific grade level and laboratory environment.
- Lesson #2 - Develop a lesson to inform the students of the importance of industry and how industry relates to the industrial arts laboratory experience.
- Lesson #3 - Demonstrate any laboratory machine appropriate to your grade level and class.
- Lesson #4 - Give a technical lesson or demonstration of your choice on a topic that you feel your students are most deficient.

Each lesson should contain the following elements:

- A. Homework assignment.
- B. Lesson time between 15 to 20 minutes.
- C. Some form of follow-up test, quiz, or evaluation to determine student comprehension of lesson goals.

AN EXAMPLE STUDENT INTRODUCTION  
BEFORE ADMINISTERING STUDENT DIAGNOSTIC QUESTIONNAIRE

As part of my student-teaching experience I am attempting to obtain your help as students in determining areas of my teaching that as a student-teacher I can improve. To accomplish this task, I am asking you to help me by completing the student-teacher diagnostic questionnaire as truthfully as you possibly can. It is not necessary for you to place your name upon the questionnaire and in no way will it affect your stand within the class. Since the learning environment affects you as a student the only way a teacher can develop a better learning environment is to request the students to react to how they perceive the teacher's skills and abilities in a specific industrial arts class.

STUDENT TEACHER DIAGNOSTIC QUESTIONNAIRE INSTRUCTION SHEET

NOTE: Use only no. 2 pencils to complete Mark Form

Completion of Identification Number

- (1) Items no. 1 through 7 are pre-marked. (Do not place any other marks in these rows).
- (2) Complete only items no. 8 and 9, marked class number, and male or female.
- (3) Class number item no. 8 - darken in space marked no. 1 for first class selected, darken no. 2 for second class.
- (4) Male, female, item no. 9 - darken in "1" if student is male and "2" if female.
- (5) Identification completed. Proceed to Set A.

Completion of Sets (Show transparency)

- (1) Set A contains four statements
 

|                              |
|------------------------------|
| (1) Has neat appearance      |
| (2) Knows subject matter     |
| (3) Listens to pupils' ideas |
| (4) Maintains neat lab       |
- (2) Read all four statements in each set before marking any answer.
- (3) Mark the item that you think is the best quality your student-teacher has with the letter grade "A".
- (4) Mark the second best quality with a "B".
- (5) Mark the third best quality with a "C".
- (6) Mark the fourth best quality with a "D".

NOTE: Use each letter grade only once in each set.

- (7) Follow this procedure for all ten sets. Be sure to use letter grades only once in each set.
- (8) Collect all papers when completed.

## STUDENT-TEACHER DIAGNOSTIC QUESTIONNAIRE

ISM 607

PRINTED IN U. S. A.

|                                         | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 0 |
|-----------------------------------------|---|---|---|---|---|---|---|---|---|---|
| Middle School (1) High School (2) ..... | 0 | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 |
| Group A (1) Group B (2) .....           | 0 | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 |
| Student Teacher Number .....            | 0 | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 |
| Cooperating Teacher Number .....        | 0 | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 |
| College Supervisor Number .....         | 0 | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 |
| Class Number (1) or (2) .....           | 0 | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 |
| Male (1) Female (2) .....               | 0 | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 |

## SET A

1. Has neat appearance ..... 1 A B C D
2. Knows subject matter ..... 2
3. Listen to pupils ideas ..... 3
4. Maintains neat lab ..... 4 A B C D

## SET B

5. Keeps good student records ..... 5
6. Students willingly work for teacher ..... 6
7. Enthusiastic about teaching ..... 7
8. Uses good questioning methods ..... 8 A B C D

## SET C

9. Gives good demonstration ..... 9
10. Has good discipline ..... 10
11. Takes care of student projects ..... 11
12. Good voice and speech ..... 12 A B C D

## SET D

13. Good sense of humor ..... 13
14. Good application of safety rules ..... 14
15. Knows how to use equipment ..... 15
16. Gives each student an equal chance ..... 16 A B C D

## SET E

17. Comes to class on time ..... 17
18. Course material interesting ..... 18
19. Is fair in dealing with students ..... 19
20. Students properly use safety glasses ..... 20 A B C D

## SET F

21. Students respect teacher ..... 21
22. Grades students fairly ..... 22
23. Shows leadership ..... 23
24. Knows where everything is ..... 24 A B C D

## SET G

25. Tools well organized ..... 25
26. Is courteous ..... 26
27. Lessons well organized ..... 27
28. Works with slower students ..... 28 A B C D

## SET H

29. Is dependable ..... 29
30. Individualizes instruction ..... 30
31. Enough supplies available for lessons ..... 31
32. Has help sessions ..... 32 A B C D

## SET I

33. Has good clean-up system ..... 33
34. Achieves aims of lessons ..... 34
35. Has good physical appearance ..... 35
36. Communicates with students ..... 36 A B C D

## SET J

37. Shows poise and self control ..... 37
38. Uses proper learning techniques ..... 38
39. Gets things done on time ..... 39
40. Never forces ideas on students ..... 40 A B C D

STUDENT-TEACHER RATING SCALE INSTRUCTION SHEET

NOTE: Use only no. 2 pencils to complete Mark Sense Form

Step 1Distribution of Scale

Distribute to each student one set of the student-teacher rating scale. These sets contain two pages and are marked with the same number in the upper left hand corner.

Example: Page 1 - 000101  
Page 2 - 000101 > Set

Please be certain that each student has two pages containing the same number. (Show transparency)

Step 2Completion of Identification Number

- (1) Items no. 1 through 7 are pre-marked. (Do not place any other marks in these rows).
- (2) Complete only items no. 8 and 9, marked class number, and male or female.
- (3) Class number, item no. 8 - darken in space marked no. 1 for first class selected, darken no. 2 for second class.
- (4) Male, female, item no. 9 - darken in "1" if student is male and "2" if female.
- (5) Complete identification number for both sheets. (Page 1) - (Page 2).
- (6) Identification completed. Proceed to Set A

Introduction

The Student-Teacher Rating Scale is two pages in length and contains two different parts. Each part utilizes a different scoring system. Part A, "forced-choice section" should be completed first. This section contains 12 sets of items marked A through L. The first ten sets are on page one and the remaining two sets are on page two. Each set contains four items divided by a solid blue line. Part B contains 16 items that are graded A through E, with "A" being considered the highest grade. Each item utilizes two lines, therefore, ratings are marked in even numbers opposite the statement.

Step 3Student Marking Instructions for Part A of the Student-Teacher Rating Scale (Forced-Choice)

- (1) Show transparency, page one.
- (2) Read all four items describing your student-teacher in set A.
- (3) From these four items, select the two items that you feel best describe your industrial arts student-teacher.
- (4) Mark these two items on the red dotted lines opposite the two items selected. (Mark only two items in each set).
- (5) Proceed to complete the remaining 12 sets in the same manner. (Stop at the completion of these sets and wait for further instructions).
- (6) Check to see if you have completed sets K and L on page two.

Step 4Student Marking Instructions for Part B of the Student-Teacher Rating Scale

- (1) Show transparency, page two.
- (2) Be sure all students have page number two with items numbered one through sixteen.
- (3) Read item number one, knowledge of subject, and rate your student-teacher with a grade of either A,B,C,D, or E with A being considered the highest and E the lowest grade.
- (4) Mark this grade under the appropriate letter to the right of each statement. (Darken in the space between the red dotted line under your chosen letter grade.
- (5) Proceed to item number two and grade your student-teacher in row 12 printed in red numbers using the same method as used to mark item number one.
- (6) Collect all papers, be sure to keep pages one and two of each student together.

Return to researcher in self-addressed, stamped envelope.



```
//QUICKE SMART WATFIV,T=10,L=1000
```

```

1 //WATFIV      BONFA,LIST
2      IMPLICIT INTEGER(A-V)
3      DIMENSION S(40)
4      SUMPER=0
5      SUMCOM=0
6      SUMREL=0
7      SUMMAN=0
8      WRITE(6,5)
9      X=0.0
10     5      FORMAT('1',5X,'ID',17X,'PER',12X,'COM',12X,'REL',12X,'MAN',10X,
11     A 'CLASS',10X,'TOTAL',/)
12     11      READ(5,3,END=20) ID,(S(I),I=1,40),CLASS
13     3      FORMAT(I10,40I1,T70,I4)
14     X=X+1.0
15     DO 69 J=1,40
16     69      S(J)=S(J)-4
17     PER=0
18     PER=PER+S(1)+S(7)+S(12)+S(13)+S(17)+S(23)+S(26)+S(29)+S(35)+S(37)
19     COM=0
20     COM=COM+S(2)+S(8)+S(9)+S(15)+S(18)+S(22)+S(27)+S(30)+S(34)+S(38)
21     REL=0
22     REL=REL+S(3)+S(6)+S(10)+S(16)+S(19)+S(21)+S(28)+S(32)+S(36)+S(40)
23     MAN=0
24     MAN=MAN+S(4)+S(5)+S(11)+S(14)+S(20)+S(24)+S(25)+S(31)+S(33)+S(39)
25     TOTAL=PER+COM+REL+MAN
26     SUMPER=SUMPER+PER
27     SUMCOM=SUMCOM+COM
28     SUMREL=SUMREL+REL
29     SUMMAN=SUMMAN+MAN
30     WRITE(6,4) ID,PER,COM,REL,MAN,CLASS,TOTAL
31     GOT011
32     4      FORMAT(1X,I10,6I15)
33     20      WPER=(SUMPER/X)/10
34      WCOM=(SUMCOM/X)/10
35      WREL=(SUMREL/X)/10
36      WMAN=(SUMMAN/X)/10
37      WRITE(6,6) WPER,WCOM,WREL,WMAN
38      WRITE(6,100)
39      STOP
40     6      FORMAT(/,21X,'WPER=',F5.2,5X,'WCOM=',F5.2,5X,'WREL=',F5.2,5X,
41     A 'WMAN=',F5.2)
42     100     FORMAT('1')
43     END

```

```
//DATA
```

COMPUTER PRINT-OUT OF DIAGNOSTIC SCORES AND COMPUTED  
MEANS FOR TEACHER #05, CLASS #1

| ID         | PER | COM | REL | MAN | CLASS | TOTAL |
|------------|-----|-----|-----|-----|-------|-------|
| 1105051100 | 23  | 26  | 31  | 14  | 0     | 100   |
| 1105051100 | 24  | 22  | 27  | 22  | 0     | 100   |
| 1105051100 | 27  | 24  | 26  | 23  | 0     | 100   |
| 1105051100 | 23  | 26  | 31  | 21  | 0     | 101   |
| 1105051100 | 31  | 18  | 30  | 21  | 0     | 100   |
| 1105051100 | 29  | 20  | 25  | 26  | 0     | 100   |
| 1105051100 | 24  | 21  | 32  | 24  | 0     | 100   |
| 1105051100 | 16  | 26  | 20  | 32  | 0     | 101   |
| 1105051100 | 18  | 20  | 34  | 30  | 0     | 100   |
| 1105051100 | 31  | 25  | 22  | 30  | 0     | 102   |
| 1105051100 | 23  | 25  | 22  | 23  | 0     | 101   |
| 1105051100 | 24  | 19  | 34  | 30  | 0     | 103   |
| 1105051100 | 21  | 17  | 29  | 19  | 0     | 100   |
| 1105051100 | 24  | 22  | 31  | 33  | 0     | 100   |
| 1105051100 | 31  | 19  | 20  | 23  | 0     | 100   |
| 1105051100 | 30  | 32  | 24  | 15  | 0     | 100   |
| 1105051100 | 20  | 28  | 19  | 33  | 0     | 101   |
| 1105051100 | 30  | 19  | 23  | 24  | 0     | 100   |
| 1105051100 | 19  | 26  | 22  | 33  | 0     | 100   |
| 1105051100 | 22  | 23  | 30  | 25  | 0     | 100   |
| 1105051100 | 26  | 19  | 26  | 29  | 0     | 100   |
| 1105051100 | 24  | 21  | 31  | 24  | 0     | 100   |
| 1105051100 | 22  | 24  | 24  | 24  | 0     | 100   |
| 1105051100 | 22  | 28  | 27  | 24  | 0     | 100   |
| 1105051100 | 17  | 31  | 22  | 23  | 0     | 102   |
| 1105051100 | 29  | 23  | 22  | 30  | 0     | 100   |
| 1105051100 | 25  | 25  | 33  | 26  | 0     | 100   |
| 1105051100 | 15  | 24  | 26  | 17  | 0     | 100   |
| 1105051100 | 33  | 17  | 24  | 35  | 0     | 100   |
| 1105051100 | 23  | 21  | 23  | 26  | 0     | 100   |
| 1105051100 | 26  | 26  | 23  | 33  | 0     | 100   |
| 1105051100 | 21  | 26  | 24  | 22  | 0     | 100   |
| 1105051100 | 21  | 26  | 31  | 22  | 0     | 100   |

WPER= 2.44 WCOM= 2.35 WREL= 2.66 WMAN= 2.57

### STUDENT-TEACHER RATING SCALE

IDM 507

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Page 1

099903

**Middle School (1) High School (2)**

**Group A (1) Group B (2)** .....

Student Teacher Number .....

Cooperating Teacher Number .....

**College Supervisor Number .....**

**Class Number (1) or (2)** .....

Male (1) Female (2) .....

|   | IDENTIFICATION NUMBER |   |   |   |   |   |   |   |   |   |
|---|-----------------------|---|---|---|---|---|---|---|---|---|
|   | 0                     | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 |
| 1 | 0                     | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 |
| 2 | 0                     | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 |
| 3 | 0                     | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 |
| 4 | 0                     | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 |
| 5 | 0                     | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 |
| 6 | 0                     | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 |
| 7 | 0                     | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 |
| 8 | 0                     | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 |
| 9 | 0                     | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 |
| 0 | 0                     | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 |

[illegible]

## STUDENT-TEACHER RATING SCALE

ISM 607

PRINTED IN U. S. A.

Page 2

099903

Middle School (1) High School (2) .....

Group A (1) Group B (2) .....

Student Teacher Number .....

Cooperating Teacher Number .....

College Supervisor Number .....

Class Number (1) or (2) .....

Male (1) Female (2) .....

| IDENTIFICATION NUMBER |   |   |   |   |   |   |   |   |   |
|-----------------------|---|---|---|---|---|---|---|---|---|
| 1                     | 0 | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 |
| 2                     | 0 | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 |
| 3                     | 0 | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 |
| 4                     | 0 | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 |
| 5                     | 0 | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 |
| 6                     | 0 | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 |
| 7                     | 0 | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 |
| 8                     | 0 | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 |
| 9                     | 0 | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 |
| 0                     | 0 | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 |

|       |                                                   |   |  |  |  |  |  |  |  |
|-------|---------------------------------------------------|---|--|--|--|--|--|--|--|
| SET K | 41. Sticks to the Grade Given .....               | 1 |  |  |  |  |  |  |  |
|       | 42. Grades on a Curve or Divided Equally .....    | 2 |  |  |  |  |  |  |  |
|       | 43. Puts Ideas Across Logically and Orderly ..... | 3 |  |  |  |  |  |  |  |
|       | 44. Keeps Class a Team, Neglects No Student ..... | 4 |  |  |  |  |  |  |  |
| SET L | 45. Sticks to the School's Grading System .....   | 5 |  |  |  |  |  |  |  |
|       | 46. Well Organized Course and Lesson Sheets ..... | 6 |  |  |  |  |  |  |  |
|       | 47. He (She) is a High Grader .....               | 7 |  |  |  |  |  |  |  |
|       | 48. Has Good Discipline .....                     | 8 |  |  |  |  |  |  |  |

|                                                                                                                                   |    |   |   |   |   |   |
|-----------------------------------------------------------------------------------------------------------------------------------|----|---|---|---|---|---|
| 1. KNOWLEDGE OF SUBJECT: (Does he have a thorough knowledge and understanding of his teaching field?) .....                       | 10 | A | B | C | D | E |
| 2. CLARITY OF PRESENTATION: (Are ideas presented at a level which you can understand?) .....                                      | 11 | A | B | C | D | E |
| 3. FAIRNESS: (Is he fair and impartial in his treatment of all students in the class?) .....                                      | 12 | A | B | C | D | E |
| 4. SAFETY PRACTICES: (Does your teacher make all students follow safety rules and procedures when working in lab?) .....          | 13 | A | B | C | D | E |
| 5. ENTHUSIASM: (Does he show interest in and enthusiasm for the subject? Does he appear to enjoy teaching this subject?) .....    | 14 | A | B | C | D | E |
| 6. ATTITUDE TOWARD STUDENTS: (Do you feel that this teacher likes you?) .....                                                     | 15 | A | B | C | D | E |
| 7. ATTITUDE TOWARD STUDENT IDEAS: (Does this teacher have respect for the things you have to say in class?) .....                 | 16 | A | B | C | D | E |
| 8. ENCOURAGEMENT OF STUDENT PARTICIPATION: (Does this teacher encourage you to raise questions and express ideas in class?) ..... | 17 | A | B | C | D | E |
| 9. STUDENT PERSONNEL SYSTEM: (Do students understand their responsibility to maintain a clean and healthy lab?) .....             | 18 | A | B | C | D | E |
| 10. SENSE OF HUMOR: (Does he share amusing experiences and laugh at his own mistakes?) .....                                      | 19 | A | B | C | D | E |
| 11. ASSIGNMENTS: (Are assignments sufficiently challenging without being unreasonably long?) .....                                | 20 | A | B | C | D | E |
| 12. APPEARANCE: (Are his grooming and dress in good taste?) .....                                                                 | 21 | A | B | C | D | E |
| 13. SUPPLIES AND MATERIALS: (Does your teacher provide enough materials and supplies to do the assignments requested?) .....      | 22 | A | B | C | D | E |
| 14. OPENNESS: (Is this teacher able to see things from your point of view?) .....                                                 | 23 | A | B | C | D | E |
| 15. SELF-CONTROL: (Does this teacher become angry when little problems arise in the classroom?) .....                             | 24 | A | B | C | D | E |
| 16. TOOLS AND MACHINES: (Are the tools and machines properly organized and in working order for a given lesson?) .....            | 25 | A | B | C | D | E |
|                                                                                                                                   | 26 | A | B | C | D | E |
|                                                                                                                                   | 27 | A | B | C | D | E |
|                                                                                                                                   | 28 | A | B | C | D | E |
|                                                                                                                                   | 29 | A | B | C | D | E |
|                                                                                                                                   | 30 | A | B | C | D | E |
|                                                                                                                                   | 31 | A | B | C | D | E |
|                                                                                                                                   | 32 | A | B | C | D | E |
|                                                                                                                                   | 33 | A | B | C | D | E |
|                                                                                                                                   | 34 | A | B | C | D | E |
|                                                                                                                                   | 35 | A | B | C | D | E |
|                                                                                                                                   | 36 | A | B | C | D | E |
|                                                                                                                                   | 37 | A | B | C | D | E |
|                                                                                                                                   | 38 | A | B | C | D | E |
|                                                                                                                                   | 39 | A | B | C | D | E |
|                                                                                                                                   | 40 | A | B | C | D | E |

```
//QUICKE SPART WATFIV, I=10, L=1000
```

```

//WATFIV      BONFA,LIST
1      IMPLICIT INTEGER(A-V)
2      DIMENSION S(64),RATE (16)
3      SUMFC=0
4      SUMTI=0
5      SUMTOT=0
6      SUMMAN=0
7      SUMREL=0
8      SUMCOM=0
9      SUPPER=0
10     SUPFER=0
11     SUMFON=0
12     SUPFEL=0
13     WRITE(6,5)
14     X=0.0
15     5  FORMAT('1',5X,'10',17X,'FC',8X,'TI',6X,'TOTAL',7X,'PER',7X,'COM',
16         A 7X,'REL',7X,'MAN',5X,'CLASS',4X,'FPER',6X,'FCOM',6X,'FREL',/)
17     11  READ(5,3,END=64) ID,(S(I),I=1,48),(RATE(I),I=1,16),CLASS
18     3    FORMAT(10,4011,7,10X,811,16(1X,11),I70,14)
19     X=X+1.0
20     SCORE=C
21     SCORE=SCORE+S(1)+S(2)+S(7)+S(8)+S(10)+S(12)+S(15)+S(16)+S(17)+
22     AS(20)+S(21)+S(22)+S(27)+S(28)+S(30)+S(31)+S(36)+S(37)+S(39)+
23     AS(44)+S(46)+S(48)+S(33)+S(43)
24     SCORE=SCORE/5
25     SUMFC=SUMFC+SCORE
26     FPER=0
27     FPER=FPER+S(12)+S(15)+S(16)+S(22)+S(33)
28     FPER=FPER/5
29     FCOM=C
30     FCOM=FCOM+S(8)+S(17)+S(21)+S(27)+S(28)+S(37)+S(39)+S(43)+S(46)
31     FCOM=FCOM/5
32     FREL=0
33     FREL=FREL+S(1)+S(2)+S(7)+S(20)+S(10)+S(36)+S(30)+S(31)+S(44)+S(48)
34     FREL=FREL/5
35     SUMFER=SUMFER+FPER
36     SUMFON=SUMFON+FCOM
37     SUPFEL=SUMFEL+FREL
38     DO 69 I=1,16
39     IF (RATE(I).EQ.9) RATE(I)=1
40     IF (RATE(I).EQ.8) RATE(I)=2
41     IF (RATE(I).EQ.7) RATE(I)=3
42     IF (RATE(I).EQ.6) RATE(I)=4
43     SRATE=0
44     DO 20 I=1,16
45     SRATE=SRATE+RATE(I)
46     SUMTI=SUMTI+SRATE
47     TOTAL=SRATE+SCORE
48     SUMTOT=SUMTOT+TOTAL
49     PER=0
50     PER=PER+RATE(5)+RATE(10)+RATE(12)+RATE(15)
51     COM=0
52     COM=COM+RATE(1)+RATE(2)+RATE(8)+RATE(11)
53     REL=0
54     REL=REL+RATE(6)+RATE(7)+RATE(3)+RATE(14)
55     MAN=0
56     MAN=MAN+RATE(4)+RATE(9)+RATE(13)+RATE(16)
57     SUPPER=SUPPER+PER
58     SUMCOM=SUMCOM+COM
59     SUMREL=SUMREL+REL

```

```

57      SUMMAN=SUMMAN+MAN
58      WRITE(6,4)ID,SCORE,SRATE,TOTAL,PER,COM,REL,MAN,CLASS,FPER,FCON,
59      A FREL
60      GOTO11
61      4      FORMAT(/1X,110,5X,111110)
62      64      WFC=SUMFC/X
63      WTI=SUMTI/X
64      WTOTAL=SUMTOT/X
65      WPER=SUMPER/X
66      WCOM=SUMCOM/X
67      WREL=SUMREL/X
68      WMAN=SUMMAN/X
69      WFER=(SUMFER/X)/5
70      WFEL=(SUMFEL/X)/10
71      WFOM=(SUMFOM/X)/9
72      WRITE(6,6)WFC,WTI,WTOTAL,WPER,WCOM,WREL,WMAN,WFER,WFOM,WFEL
73      WRITE(6,100)
74      STOP
75      6      FORMAT(/,23X,'WFC=',6X,'WTI=',3X,'WTOTAL=',5X,'WPER=',5X,'WCOM=',
76      A 5X,'WREL=',5X,'WMAN=',15X,'WFER=',5X,'WFOM=',5X,'WFEL=',/,10X,
A 'MEAN',8X,F5.2,5X,F5.2,5X,F5.2,5X,F5.2,5X,F5.2,5X,F5.2,5X,F5.2,
A 4X,'PERCENT',4X,F5.3,5X,F5.3,5X,F5.3)
100      FORMAT('1')
      END

```

//DATA

| ID         | FC         | TI         | TOTAL         | PER         | COM         | REL         | MAN         | CLASS   | PPER        | FCON        | FREL        |
|------------|------------|------------|---------------|-------------|-------------|-------------|-------------|---------|-------------|-------------|-------------|
| IC01200111 | 15         | 52         | 67            | 10          | 12          | 15          | 15          | 3211    | 4           | 5           | 6           |
| IC02200121 | 13         | 67         | 80            | 16          | 17          | 16          | 18          | 3211    | 2           | 6           | 5           |
| IC03200111 | 12         | 51         | 63            | 12          | 12          | 14          | 13          | 3211    | 4           | 5           | 3           |
| IC04200111 | 15         | 65         | 80            | 15          | 13          | 14          | 18          | 3211    | 4           | 4           | 7           |
| IC05200121 | 14         | 52         | 66            | 16          | 11          | 12          | 13          | 3211    | 4           | 5           | 5           |
| IC06220111 | 12         | 55         | 67            | 9           | 14          | 14          | 16          | 3211    | 2           | 5           | 5           |
| IC08200111 | 12         | 52         | 64            | 12          | 16          | 10          | 14          | 3211    | 2           | 4           | 6           |
| IC09200111 | 10         | 46         | 56            | 9           | 13          | 9           | 15          | 3211    | 3           | 2           | 5           |
| IC11200111 | 11         | 57         | 68            | 15          | 14          | 13          | 15          | 3211    | 3           | 3           | 5           |
| IC13200121 | 8          | 66         | 74            | 14          | 18          | 15          | 19          | 3211    | 1           | 3           | 4           |
| IC14200111 | 14         | 76         | 90            | 18          | 18          | 20          | 20          | 3211    | 3           | 5           | 6           |
| IC17200121 | 10         | 60         | 70            | 13          | 17          | 13          | 17          | 3211    | 3           | 2           | 5           |
| IC20200111 | 10         | 61         | 71            | 10          | 16          | 17          | 16          | 3211    | 2           | 1           | 7           |
| IC31200211 | 14         | 57         | 71            | 16          | 15          | 11          | 15          | 3221    | 4           | 3           | 7           |
| IC02200211 | 9          | 71         | 80            | 14          | 20          | 18          | 19          | 3221    | 2           | 1           | 6           |
| IC03200211 | 15         | 76         | 91            | 17          | 20          | 20          | 19          | 3221    | 1           | 6           | 8           |
| IC05200211 | 13         | 61         | 74            | 14          | 15          | 14          | 18          | 3221    | 3           | 3           | 7           |
| IC07200221 | 15         | 69         | 84            | 17          | 18          | 19          | 15          | 3221    | 5           | 3           | 7           |
| IC09200211 | 12         | 56         | 68            | 18          | 14          | 9           | 15          | 3221    | 4           | 3           | 5           |
| IC11200221 | 11         | 64         | 75            | 15          | 18          | 12          | 19          | 3221    | 1           | 5           | 5           |
| IC12200211 | 9          | 70         | 79            | 15          | 19          | 16          | 20          | 3221    | 2           | 3           | 4           |
| IC13200211 | 14         | 75         | 89            | 19          | 18          | 19          | 19          | 3221    | 3           | 4           | 7           |
| IC15200211 | 12         | 59         | 71            | 14          | 15          | 12          | 18          | 3221    | 4           | 1           | 7           |
| IC16200221 | 9          | 60         | 69            | 14          | 16          | 14          | 16          | 3221    | 3           | 2           | 4           |
| IC17200221 | 7          | 68         | 75            | 15          | 19          | 15          | 19          | 3221    | 2           | 4           | 1           |
| IC19200221 | 13         | 75         | 88            | 18          | 20          | 10          | 18          | 3221    | 1           | 7           | 5           |
| IC23200221 | 15         | 63         | 78            | 15          | 15          | 15          | 17          | 3221    | 3           | 4           | 8           |
| MEAN       | WFC= 12.00 | WII= 62.37 | WTOTAL= 74.37 | WPER= 14.44 | WCOM= 16.26 | WREL= 14.63 | WMAN= 17.04 | PERCENT | WPER= 0.556 | WFCM= 0.407 | WREL= 0.556 |

STUDENT-TEACHER BEHAVIORAL OBJECTIVES FORM

Based on the student diagnostic forms and group interaction session, please list in the appropriate category or categories, the behavioral objectives you will attempt to achieve during the remaining student-teaching session. Strategies for implementation should also be included on page 2.

PERSONAL TRAITSPROFESSIONAL COMPETENCEPUPIL RELATIONSHIPSCLASSROOM MANAGEMENT

STRATEGIES FOR IMPLEMENTATION OF  
BEHAVIORAL OBJECTIVES

Category selected from page (1)  
(Please Check)

- ☐ 1. Personal Traits
- ☐ 2. Professional Competence
- ☐ 3. Pupil Relationships
- ☐ 4. Classroom Management

Strategies - How you will accomplish these behavioral objectives stated  
on page (1)

1.

2.

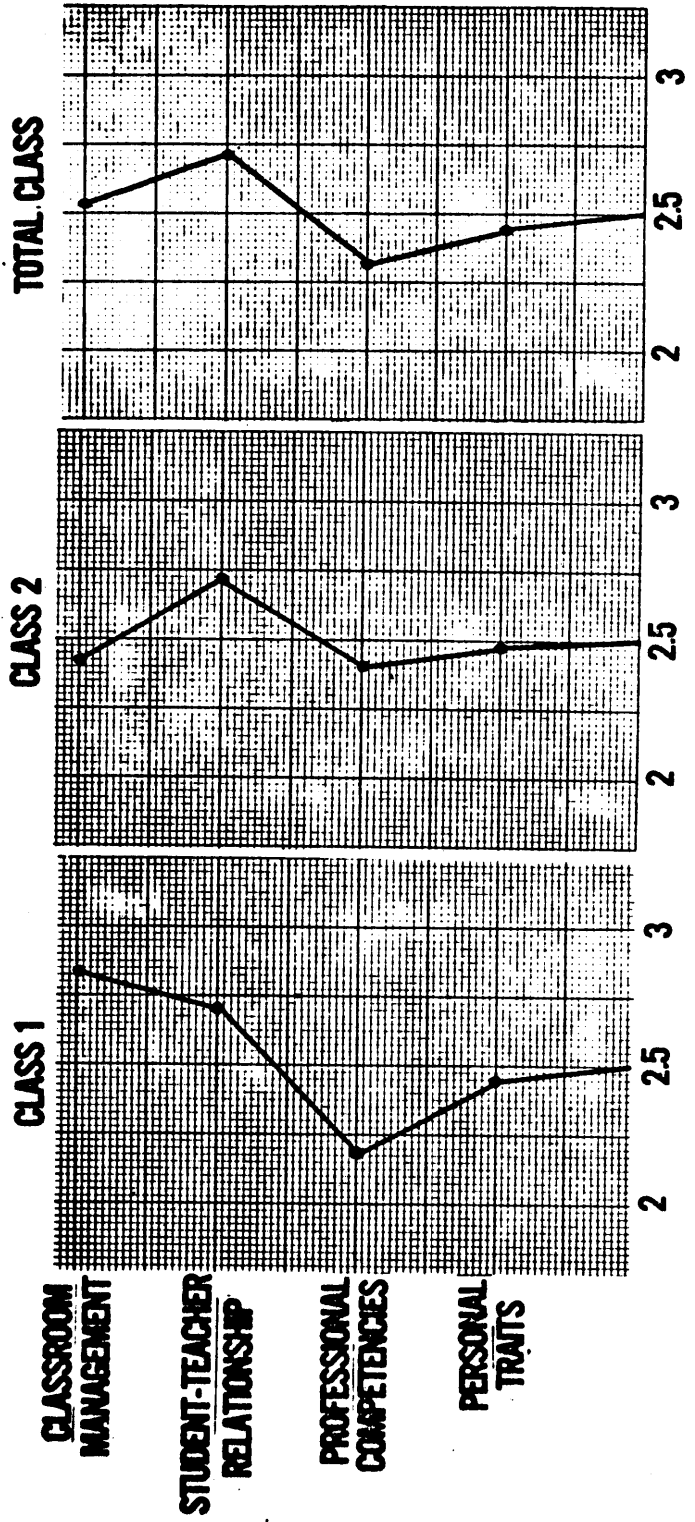
3.

4.

## APPENDIX B

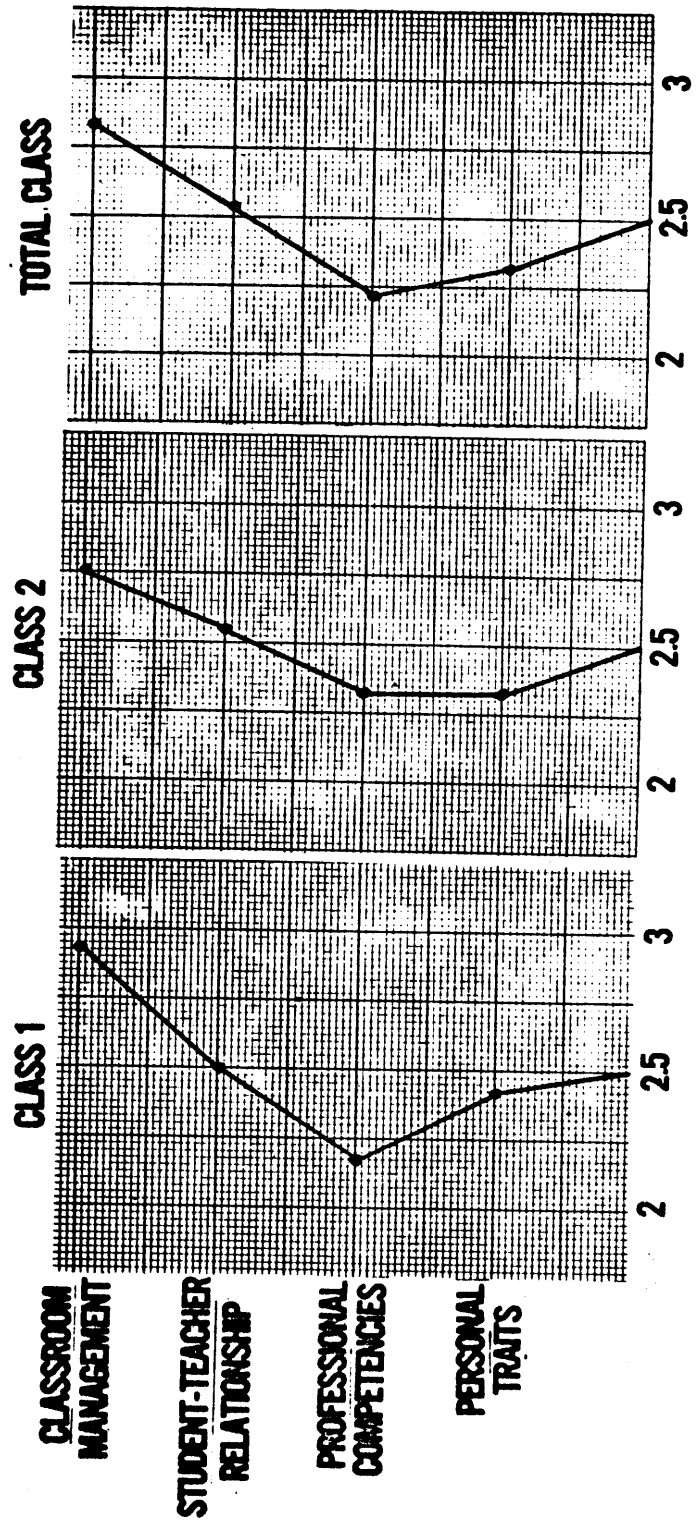
# GRAPHS OF STUDENT TEACHER DIAGNOSTIC SCALE SCORES BY DIAGNOSTIC CATEGORY

TEACHER NUMBER 1

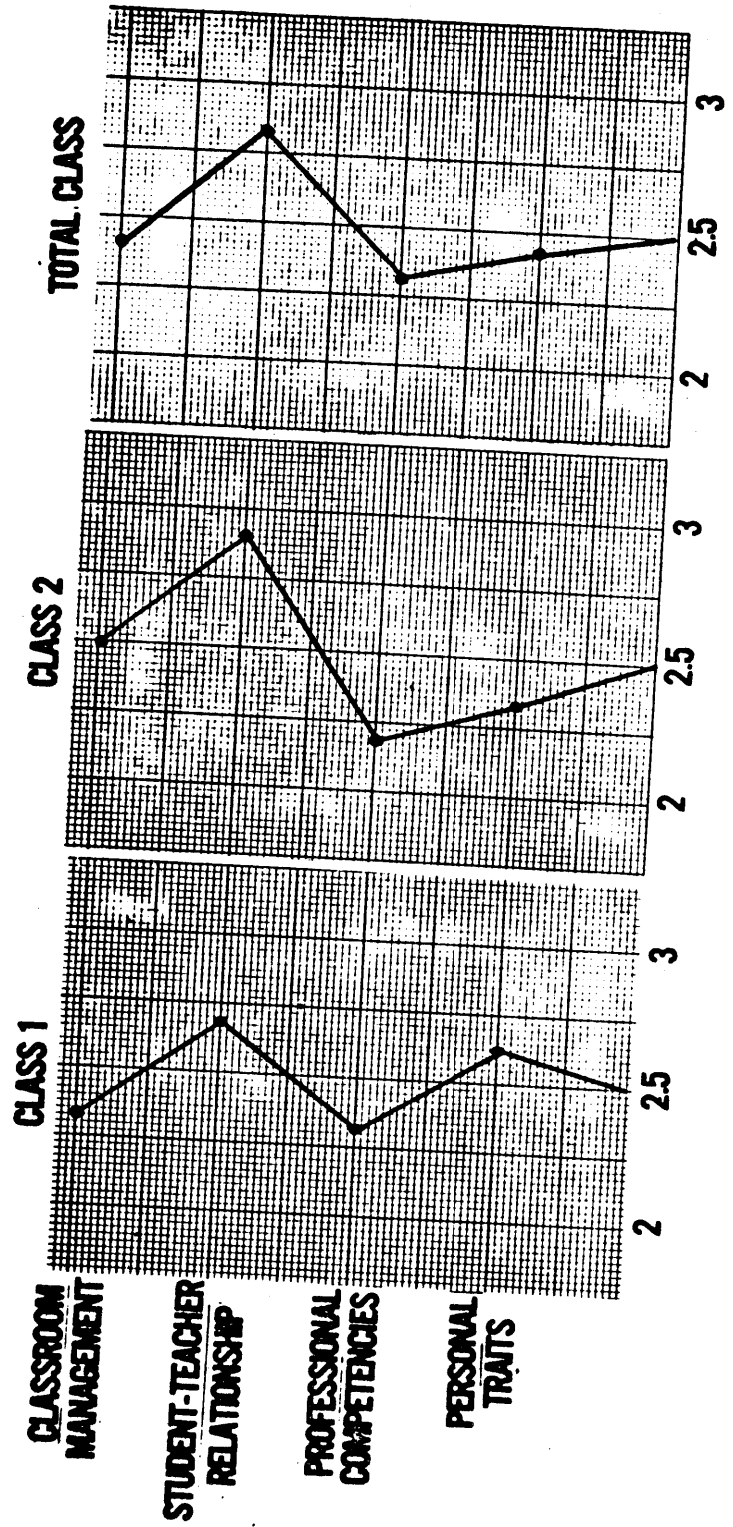


**GRAPHS OF  
STUDENT TEACHER DIAGNOSTIC SCALE SCORES BY DIAGNOSTIC CATEGORY**

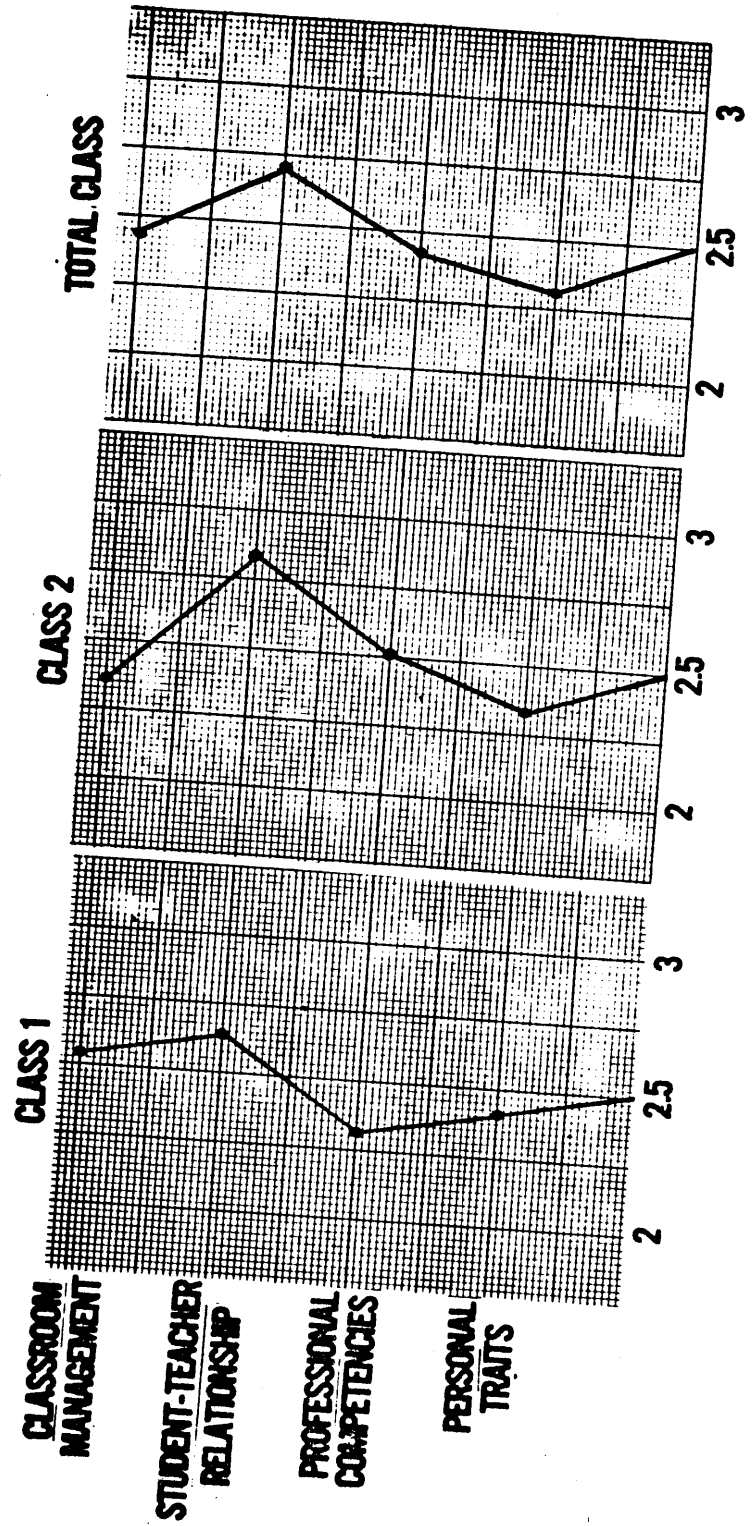
**TEACHER NUMBER 2**



**GRAPHS OF  
STUDENT TEACHER DIAGNOSTIC SCALE SCORES BY DIAGNOSTIC CATEGORY  
TEACHER NUMBER 4**

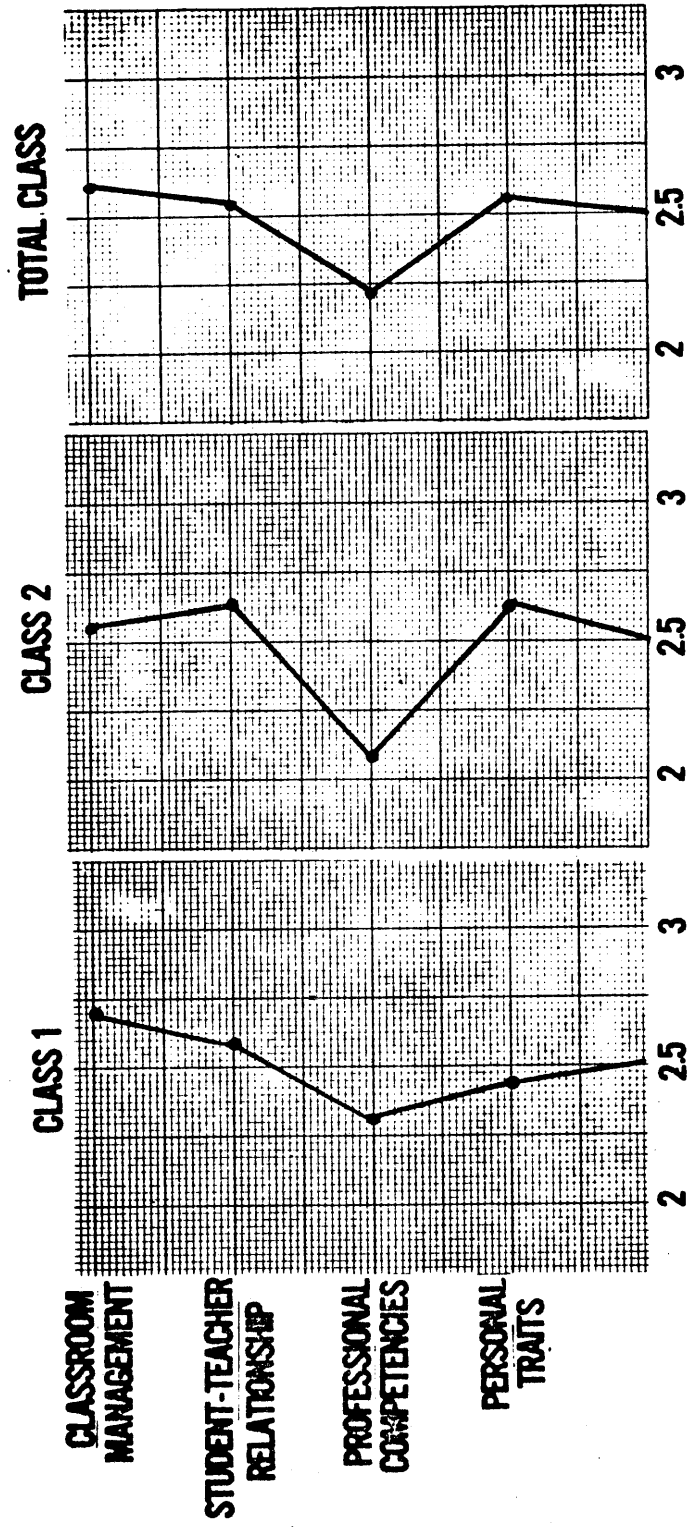


**GRAPHS OF**  
**STUDENT TEACHER DIAGNOSTIC SCALE SCORES BY DIAGNOSTIC CATEGORY**  
**TEACHER NUMBER 5**



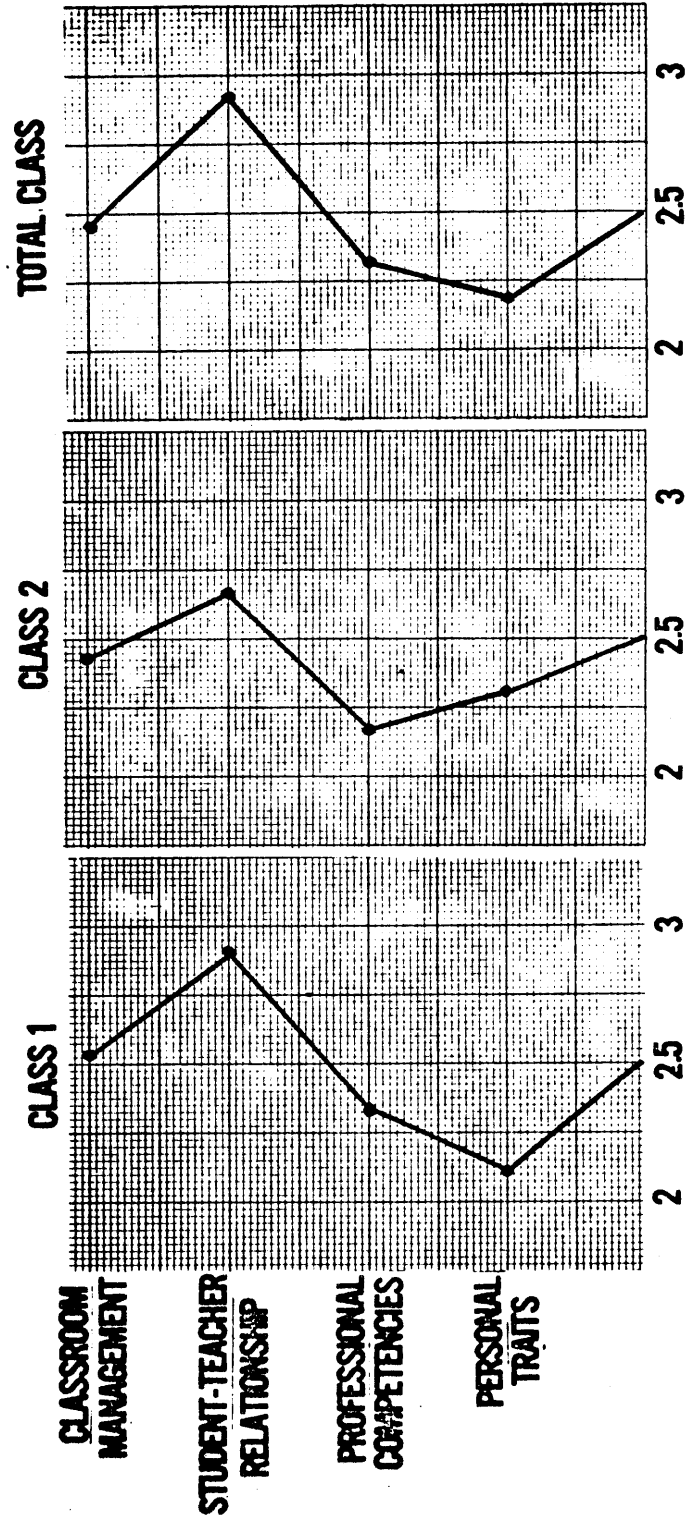
# GRAPHS OF STUDENT TEACHER DIAGNOSTIC SCALE SCORES BY DIAGNOSTIC CATEGORY

TEACHER NUMBER 6

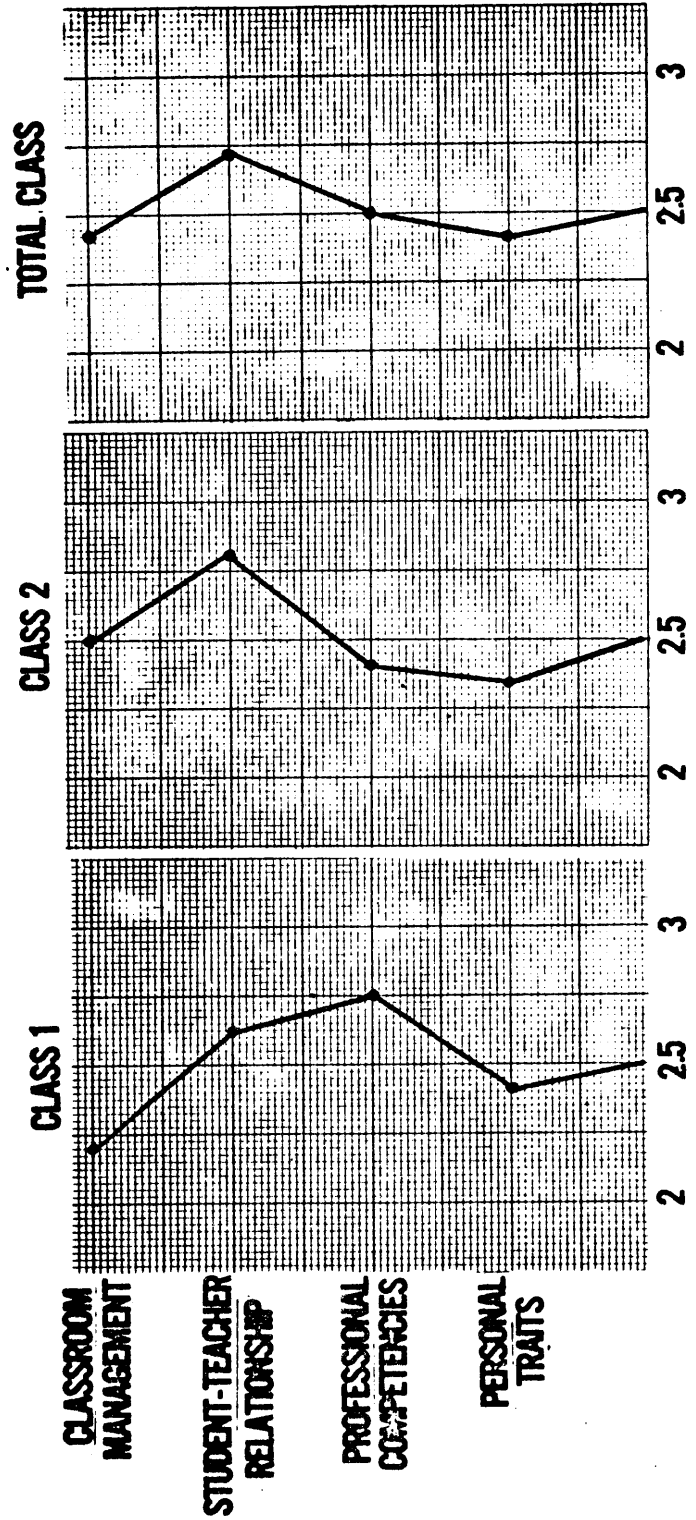


**GRAPHS OF  
STUDENT TEACHER DIAGNOSTIC SCALE SCORES BY DIAGNOSTIC CATEGORY**

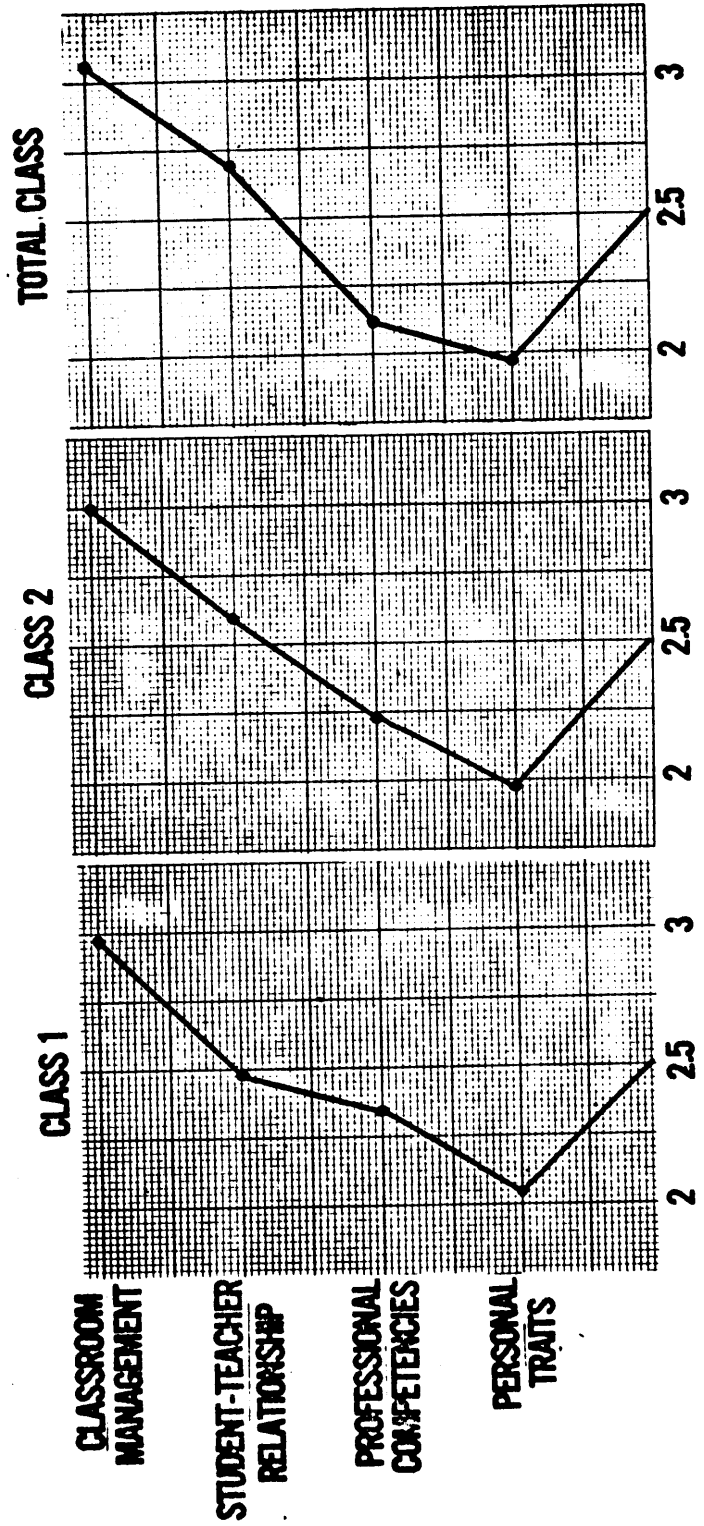
**TEACHER NUMBER 7**



**GRAPHS OF**  
**STUDENT TEACHER DIAGNOSTIC SCALE SCORES BY DIAGNOSTIC CATEGORY**  
**TEACHER NUMBER 15**

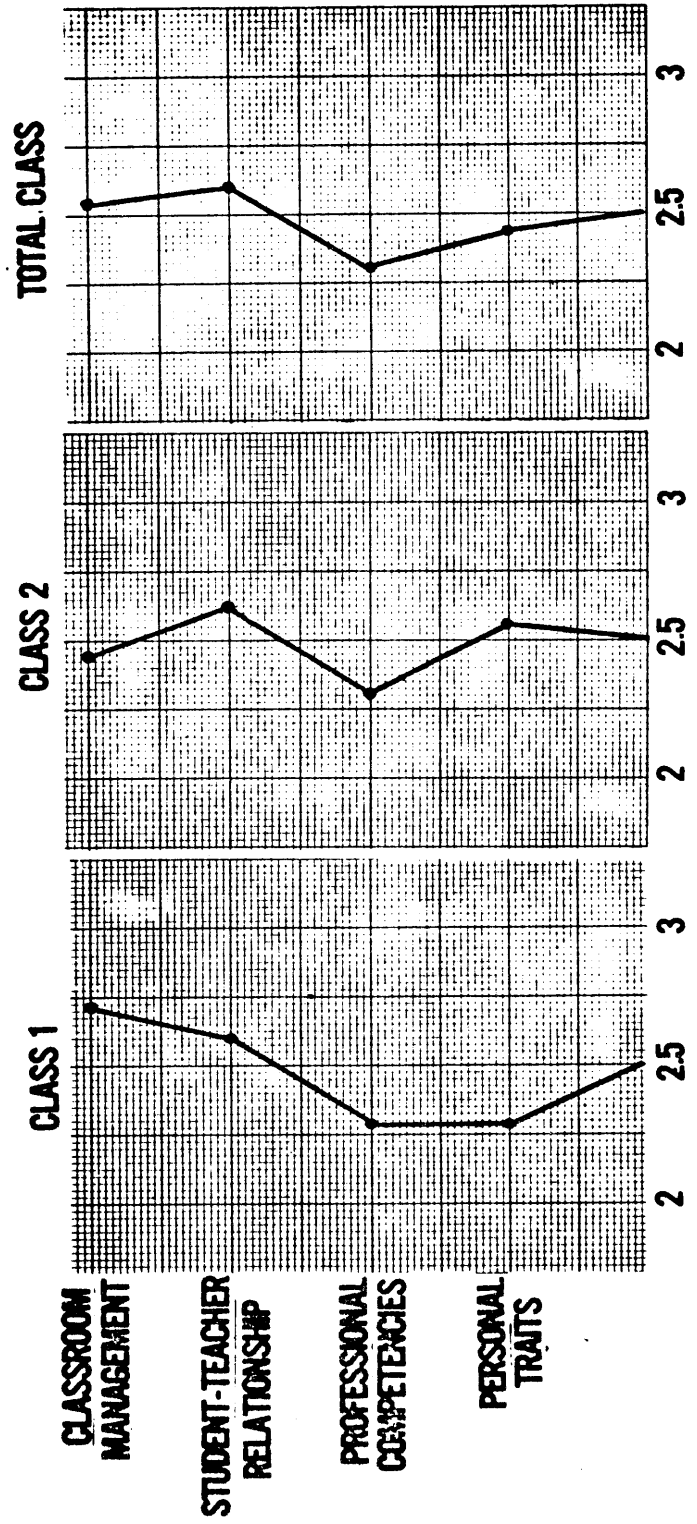


**GRAPHS OF**  
**STUDENT TEACHER DIAGNOSTIC SCALE SCORES BY DIAGNOSTIC CATEGORY**  
**TEACHER NUMBER 16**

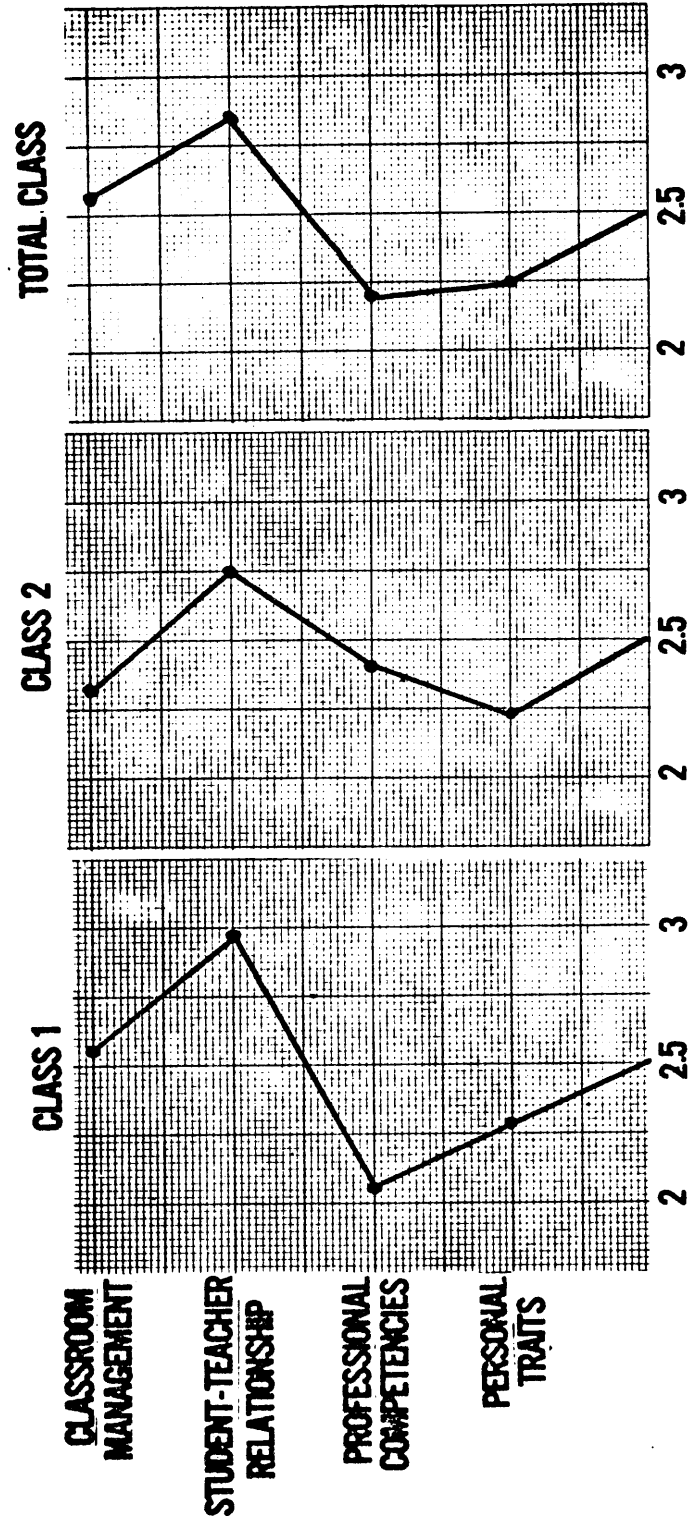


**GRAPHS OF  
STUDENT TEACHER DIAGNOSTIC SCALE SCORES BY DIAGNOSTIC CATEGORY**

**TEACHER NUMBER 17**

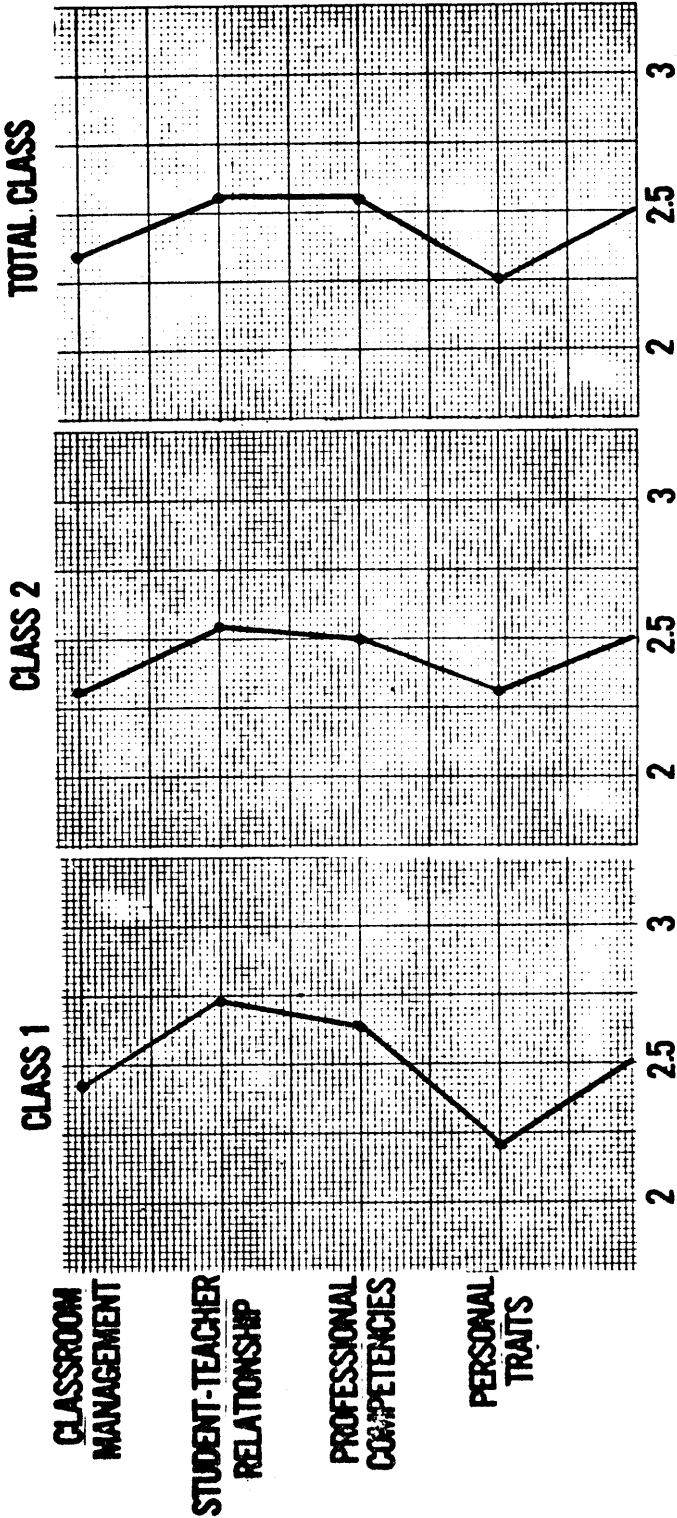


GRAPHS OF  
STUDENT TEACHER DIAGNOSTIC SCALE SCORES BY DIAGNOSTIC CATEGORY  
TEACHER NUMBER 20



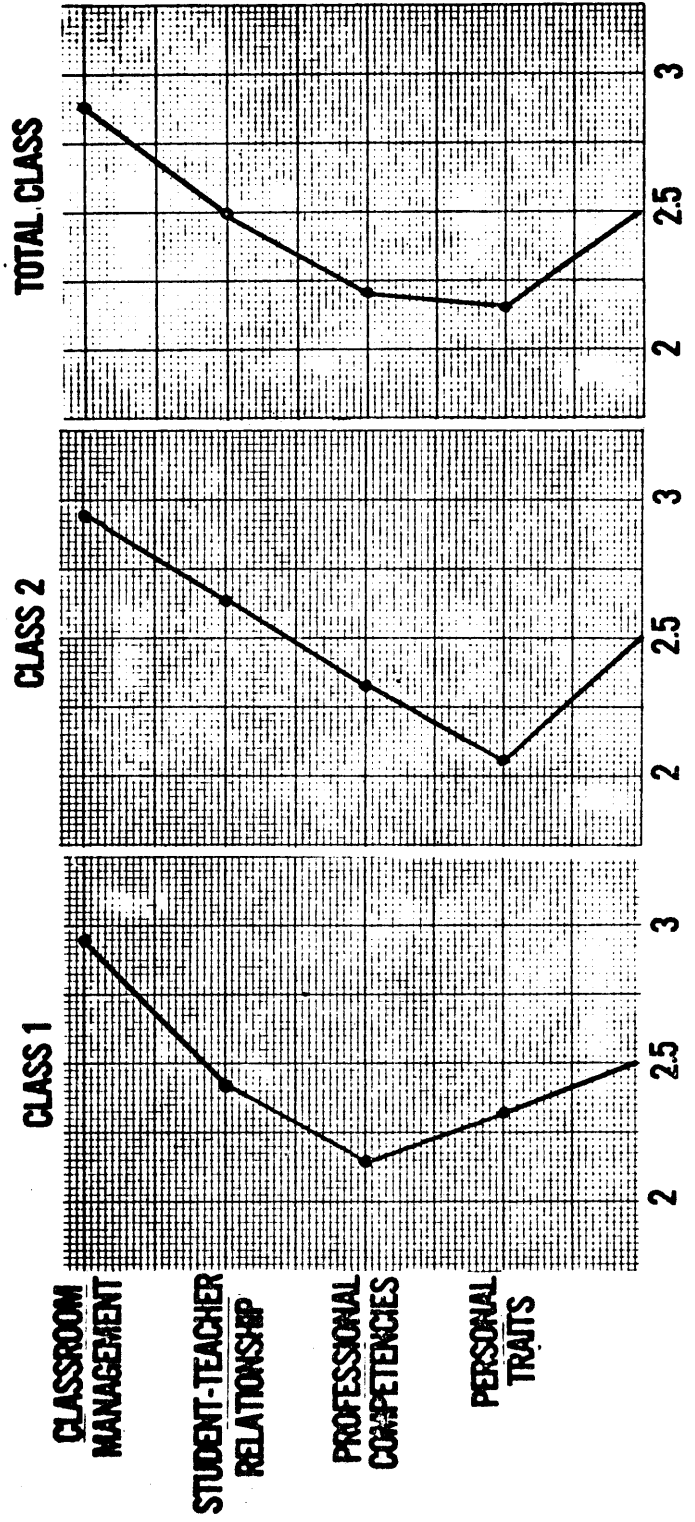
**GRAPHS OF  
STUDENT TEACHER DIAGNOSTIC SCALE SCORES BY DIAGNOSTIC CATEGORY**

**TEACHER NUMBER 21**



# GRAPHS OF STUDENT TEACHER DIAGNOSTIC SCALE SCORES BY DIAGNOSTIC CATEGORY

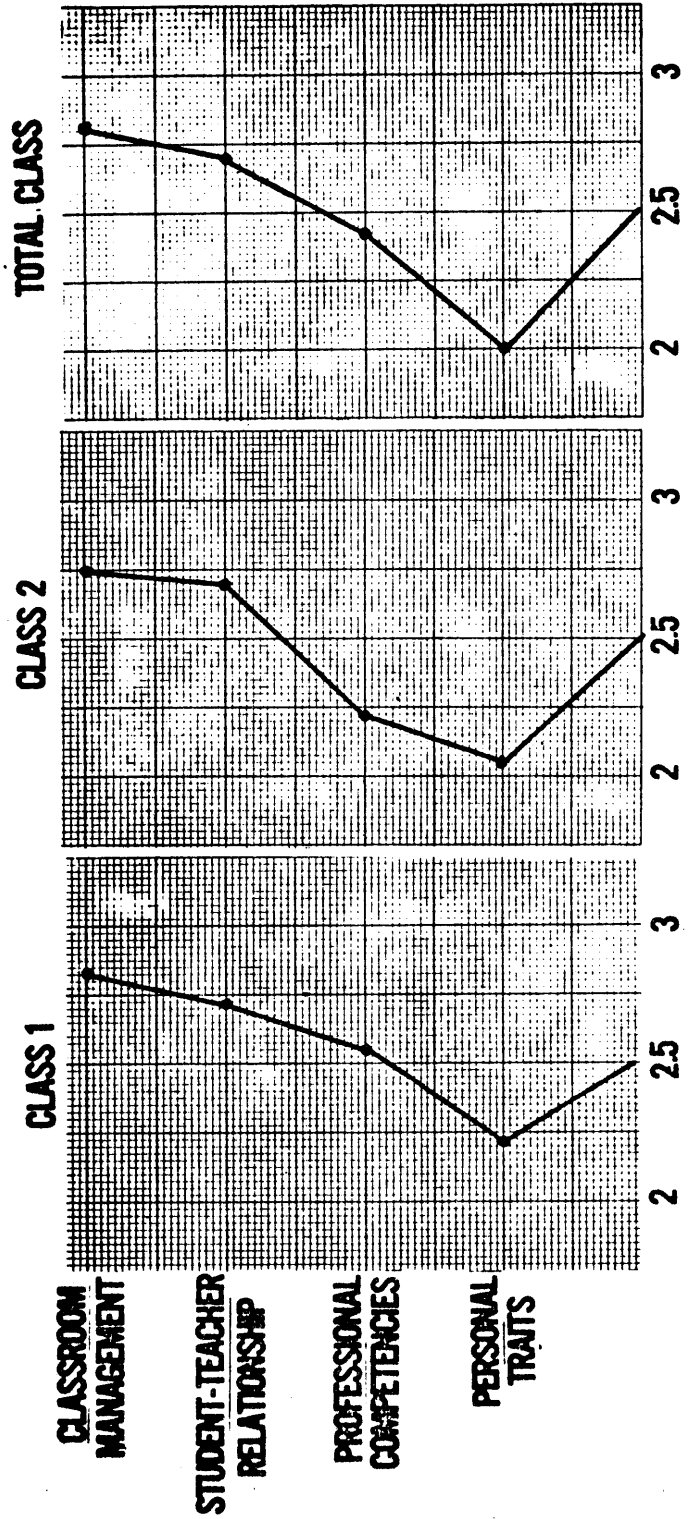
TEACHER NUMBER 22





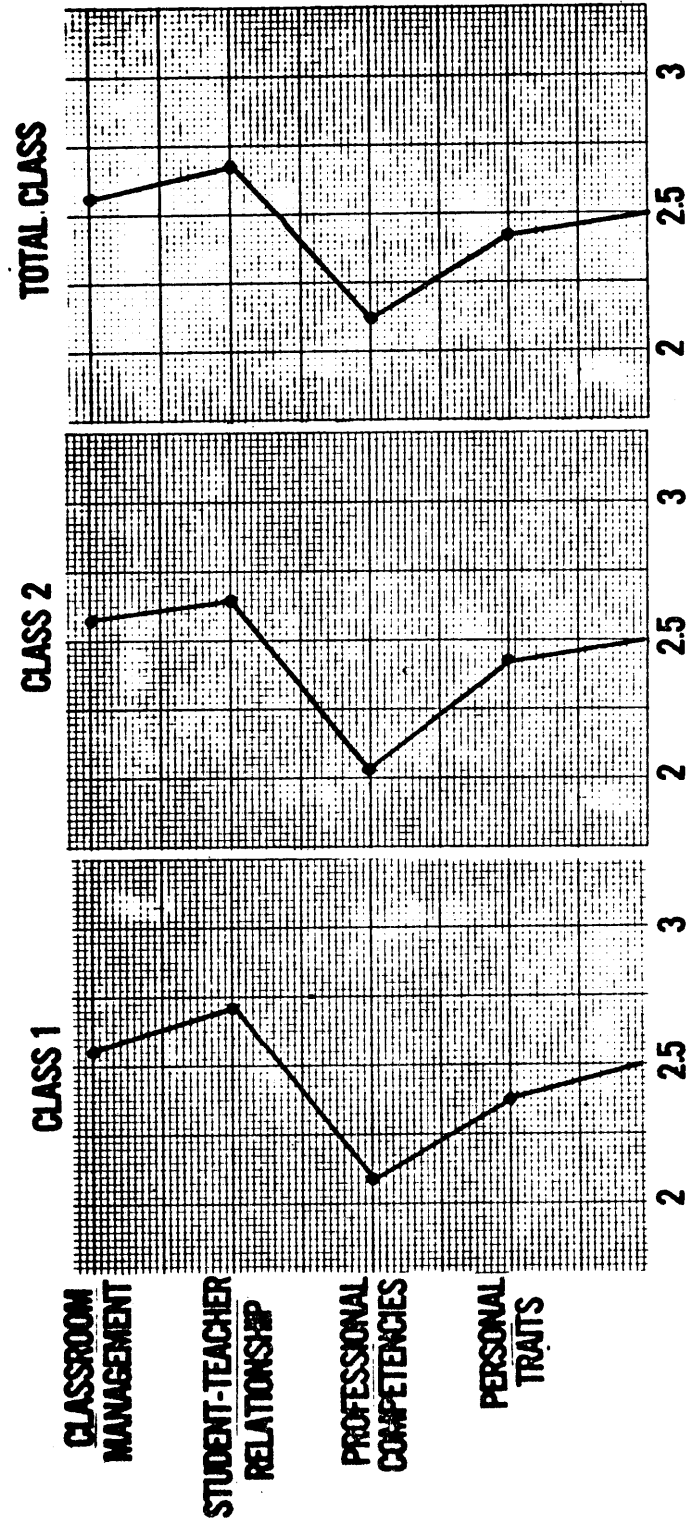
# **GRAPHS OF STUDENT TEACHER DIAGNOSTIC SCALE SCORES BY DIAGNOSTIC CATEGORY**

**TEACHER NUMBER 32**



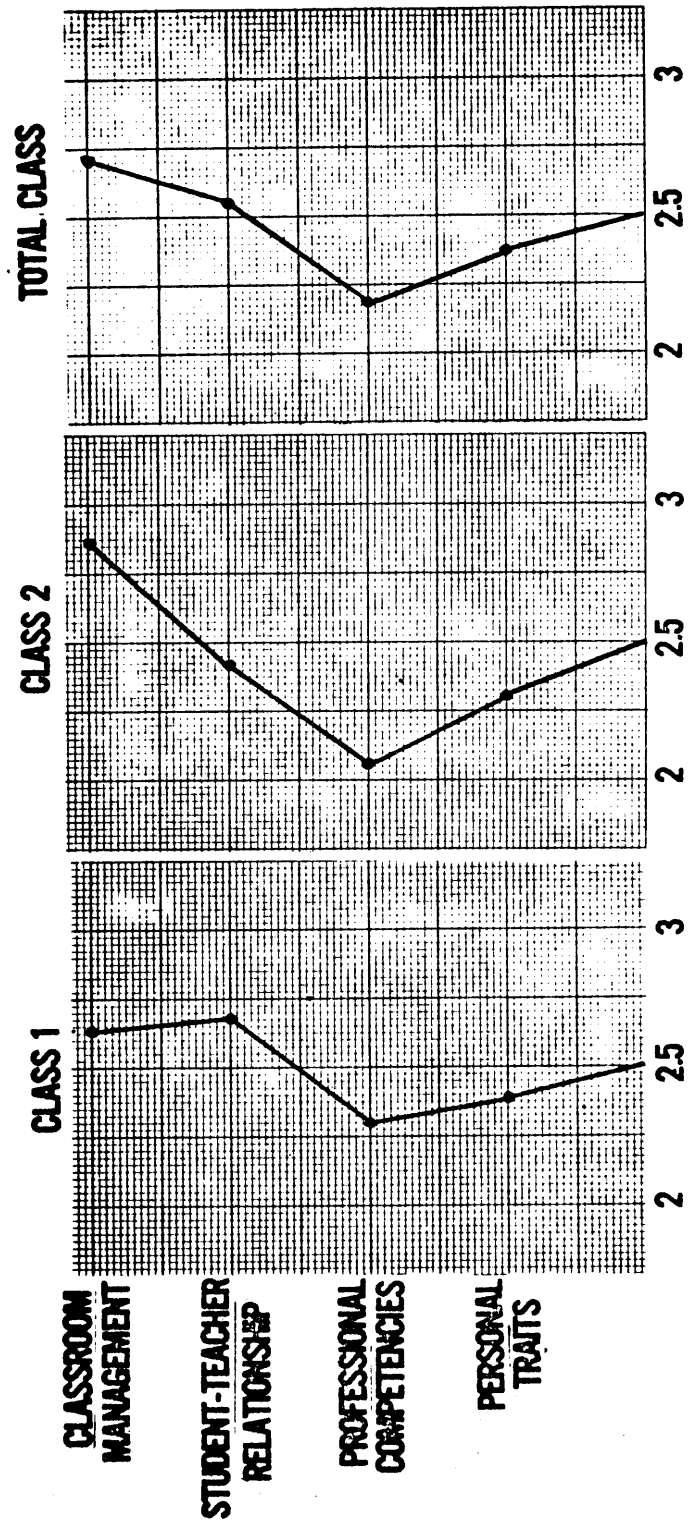
**GRAPHS OF  
STUDENT TEACHER DIAGNOSTIC SCALE SCORES BY DIAGNOSTIC CATEGORY**

**TEACHER NUMBER 33**



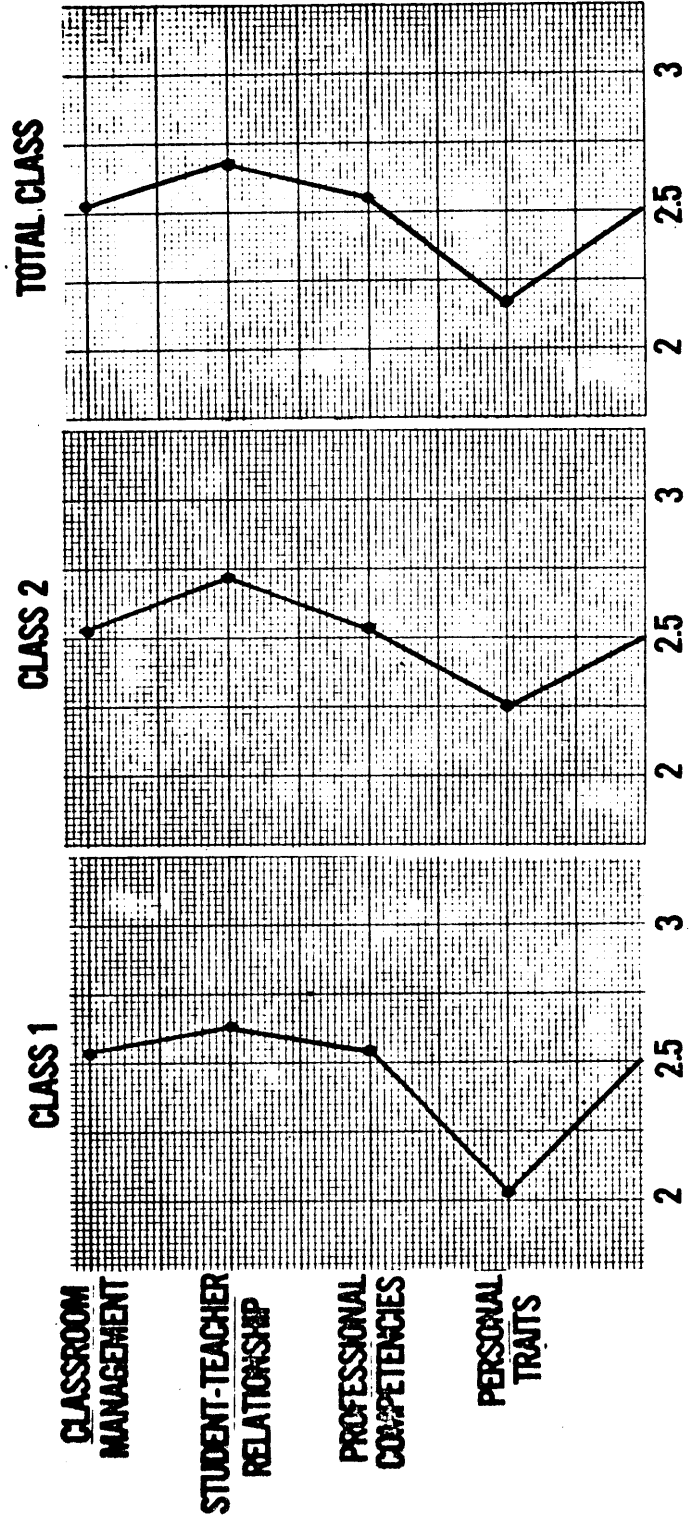
**GRAPHS OF  
STUDENT TEACHER DIAGNOSTIC SCALE SCORES BY DIAGNOSTIC CATEGORY**

**TEACHER NUMBER 34**



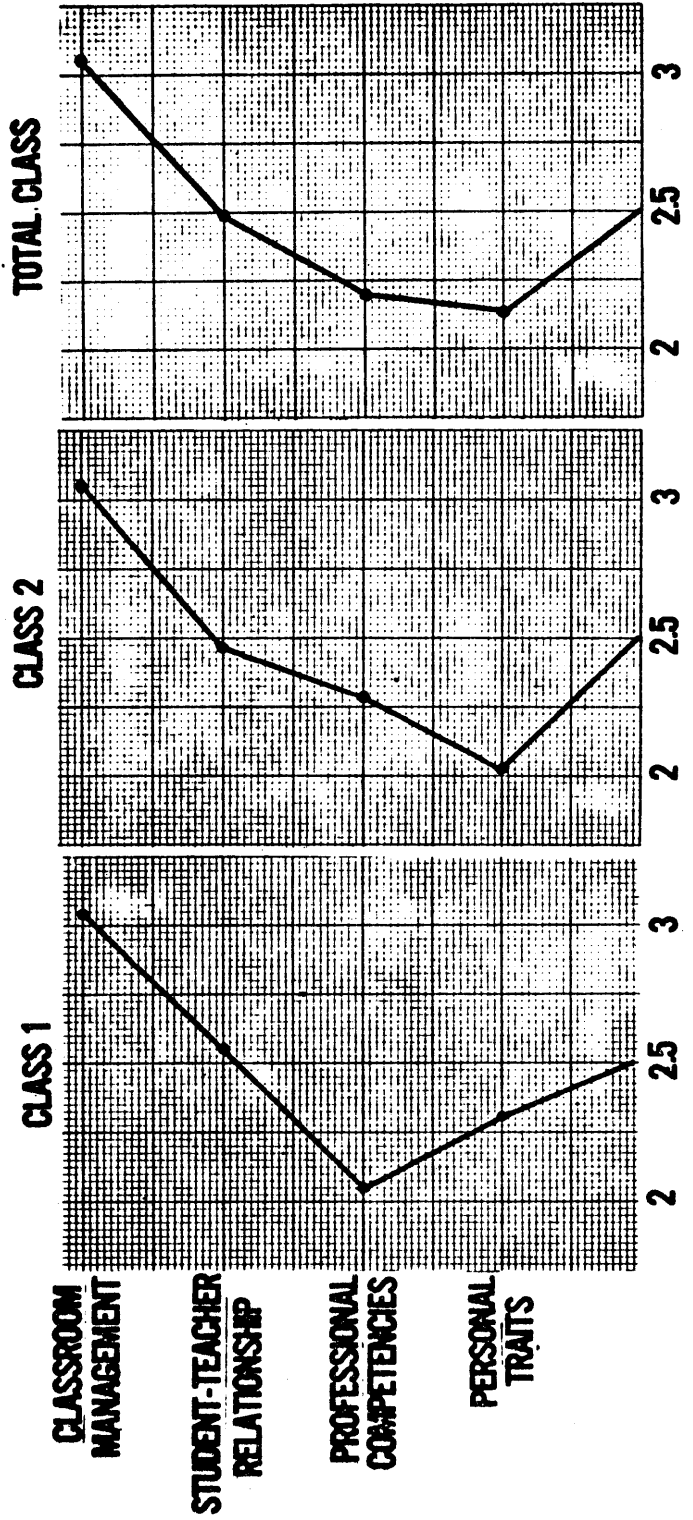
# GRAPHS OF STUDENT TEACHER DIAGNOSTIC SCALE SCORES BY DIAGNOSTIC CATEGORY

TEACHER NUMBER 35



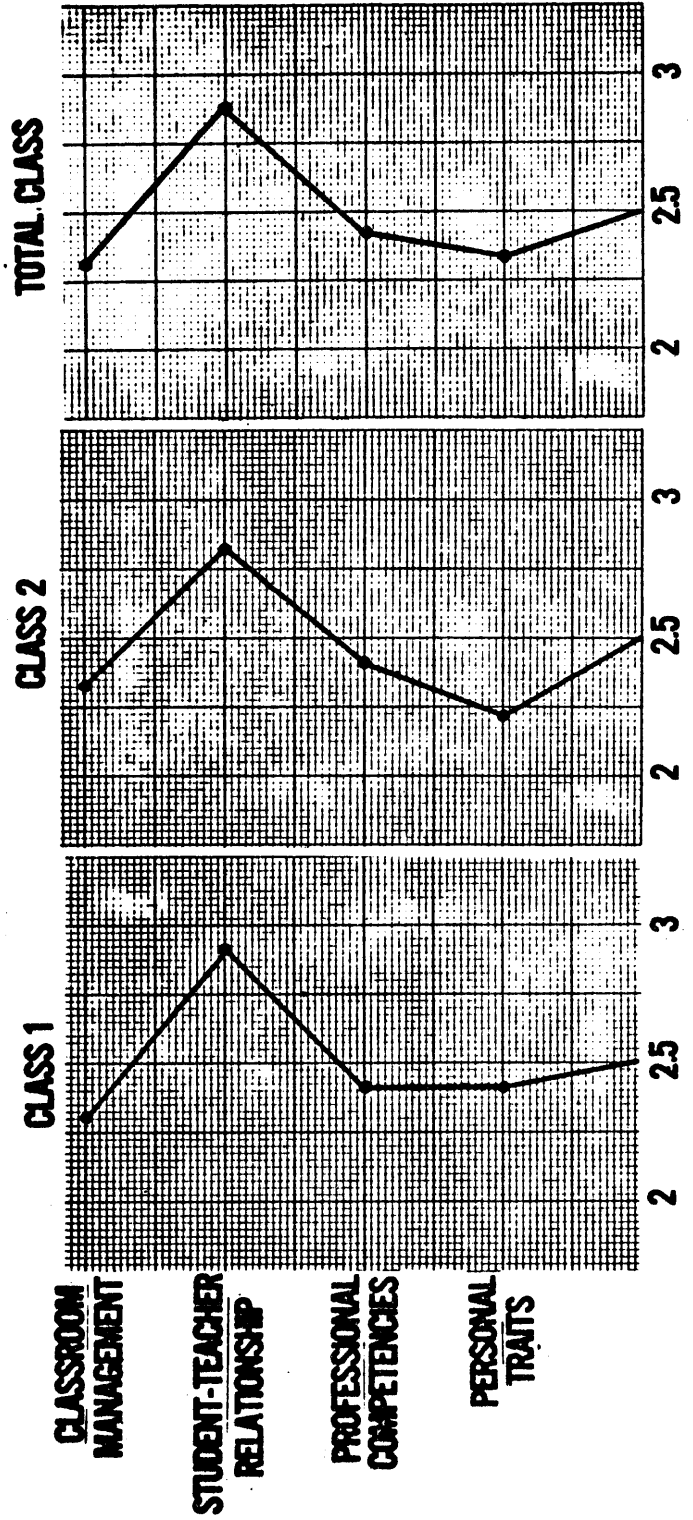
GRAPHS OF  
STUDENT TEACHER DIAGNOSTIC SCALE SCORES BY DIAGNOSTIC CATEGORY

TEACHER NUMBER 44



# GRAPHS OF STUDENT TEACHER DIAGNOSTIC SCALE SCORES BY DIAGNOSTIC CATEGORY

TEACHER NUMBER 48

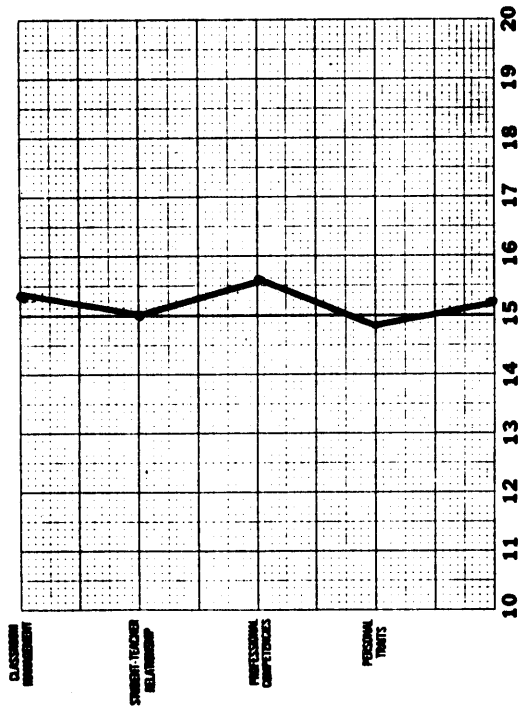


## APPENDIX C

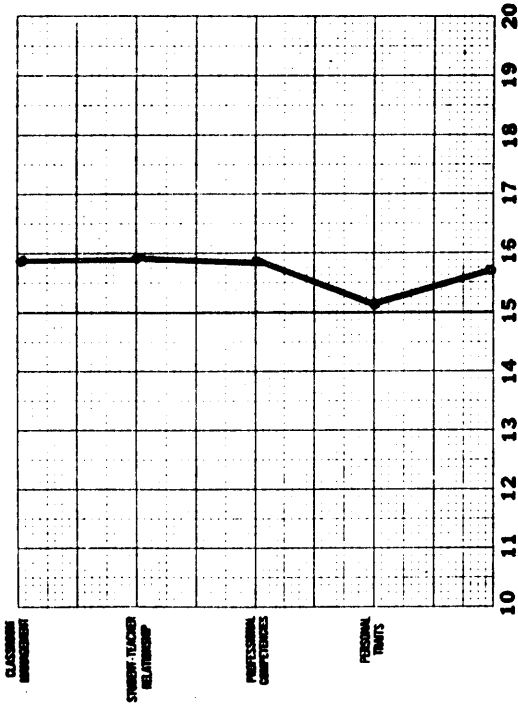
# GRAPHS OF STUDENT TEACHER RATING SCALE SCORES BY DIAGNOSTIC CATEGORY

## STUDENT EVALUATION

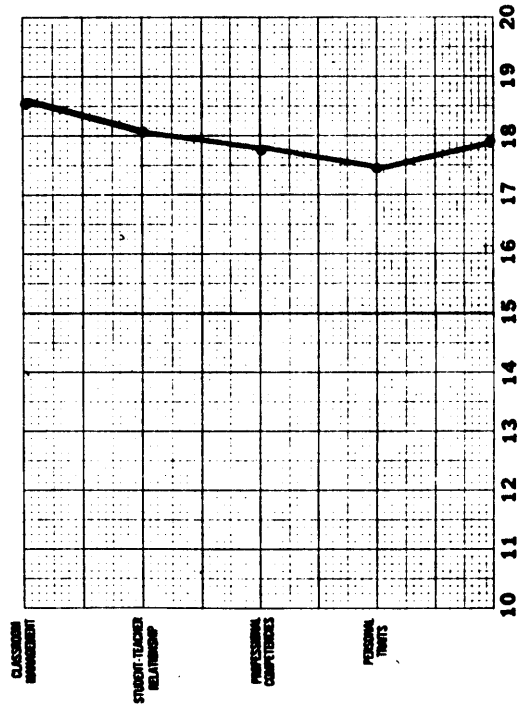
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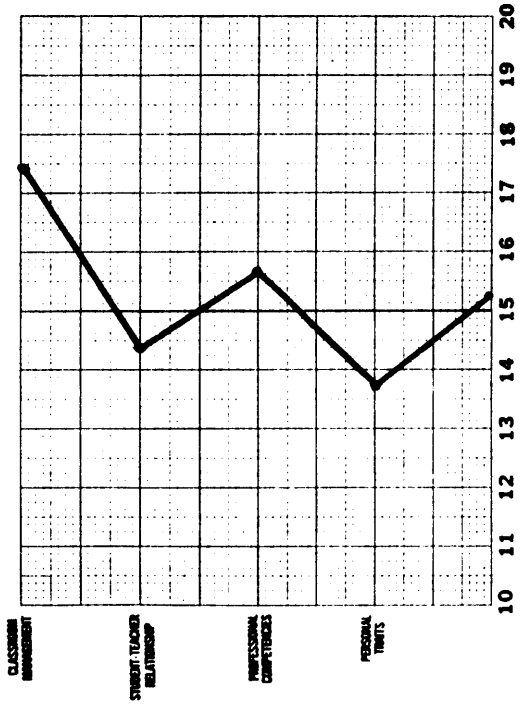
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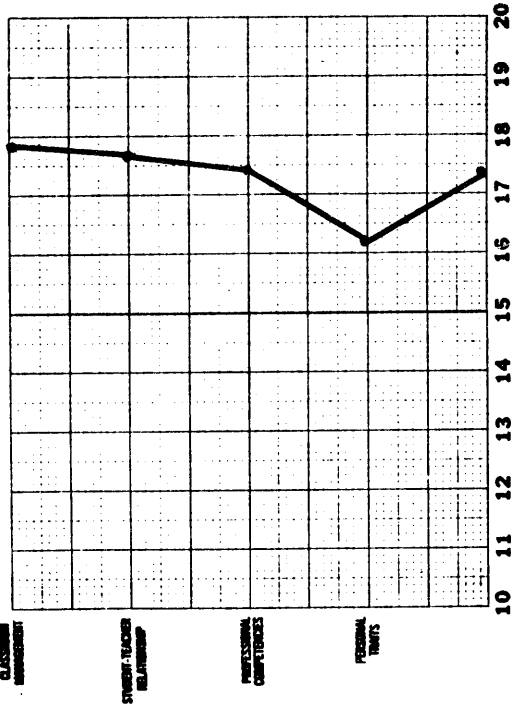
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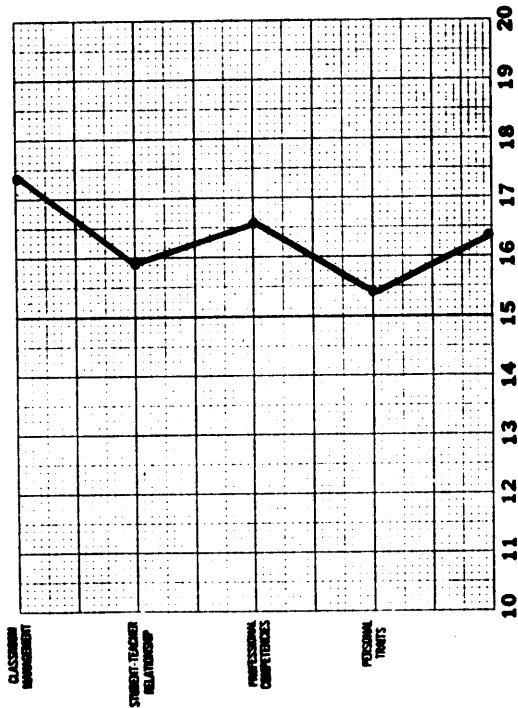
GRAPHS OF  
STUDENT TEACHER RATING SCALE SCORES BY DIAGNOSTIC CATEGORY

STUDENT EVALUATION

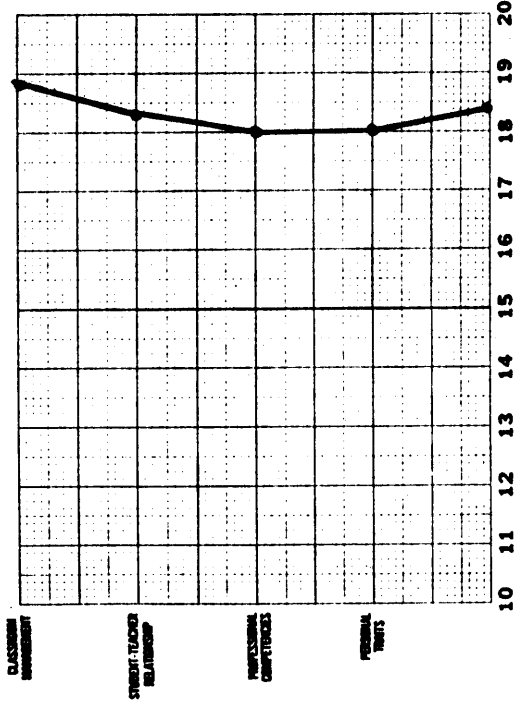
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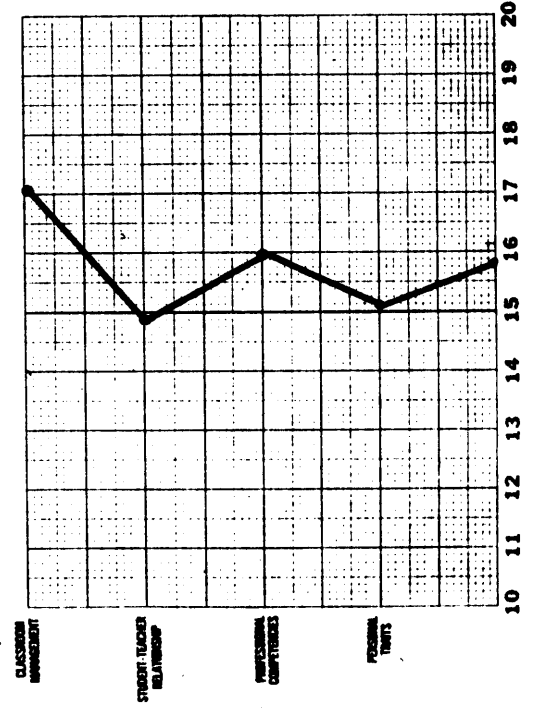
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TEACHER NUMBER 8

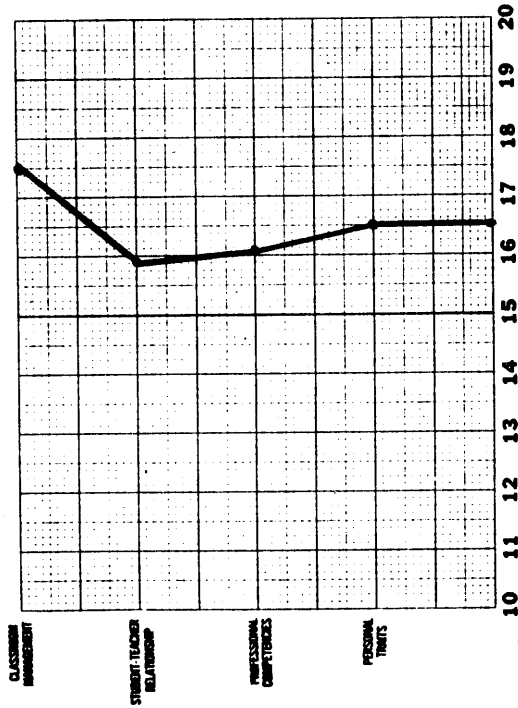


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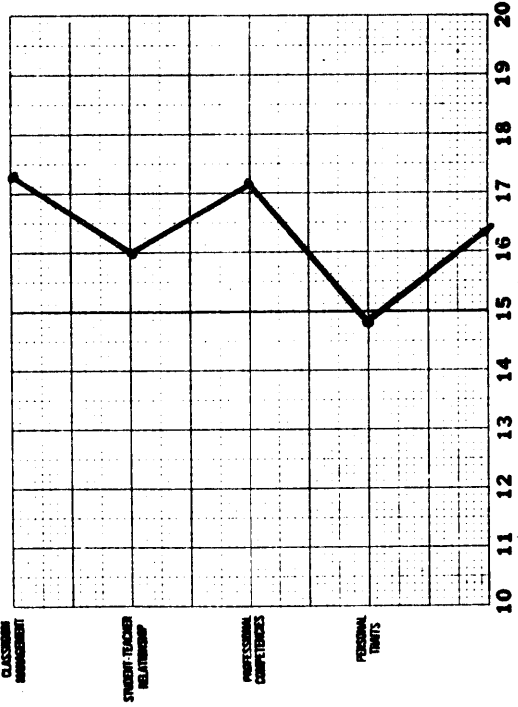


# GRAPHS OF STUDENT TEACHER RATING SCALE SCORES BY DIAGNOSTIC CATEGORY

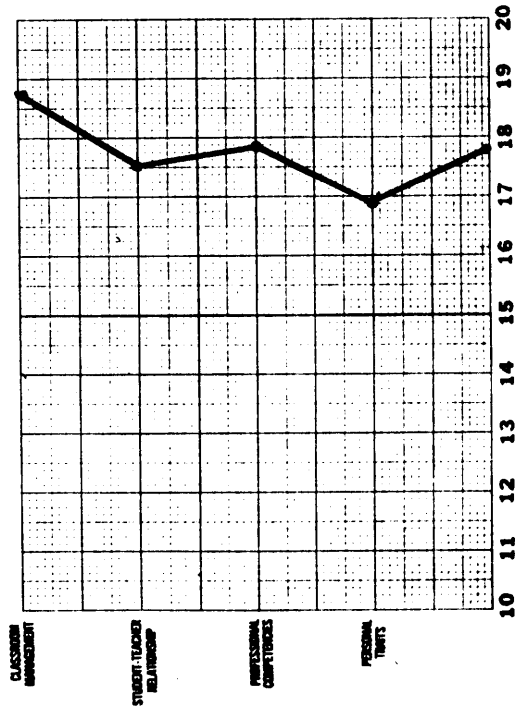
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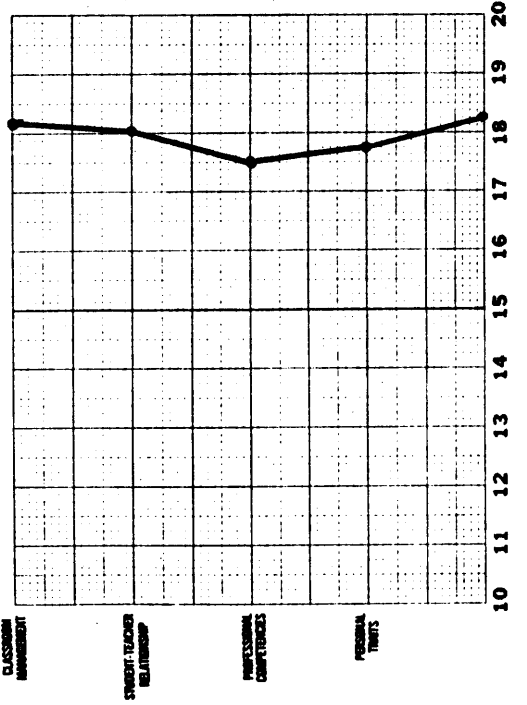
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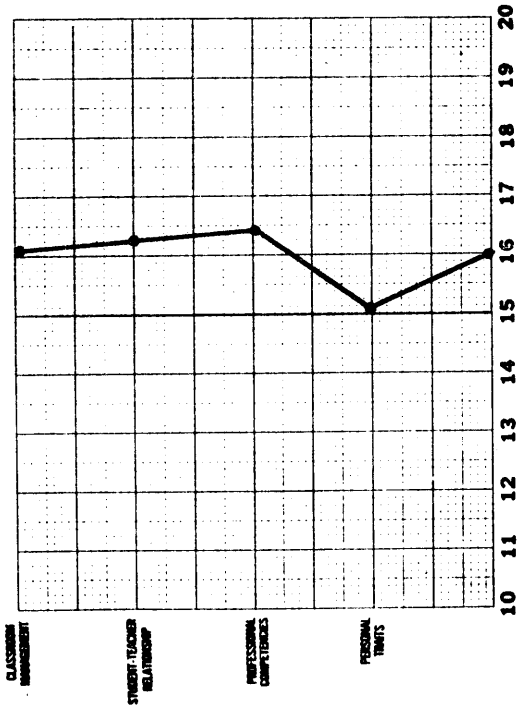
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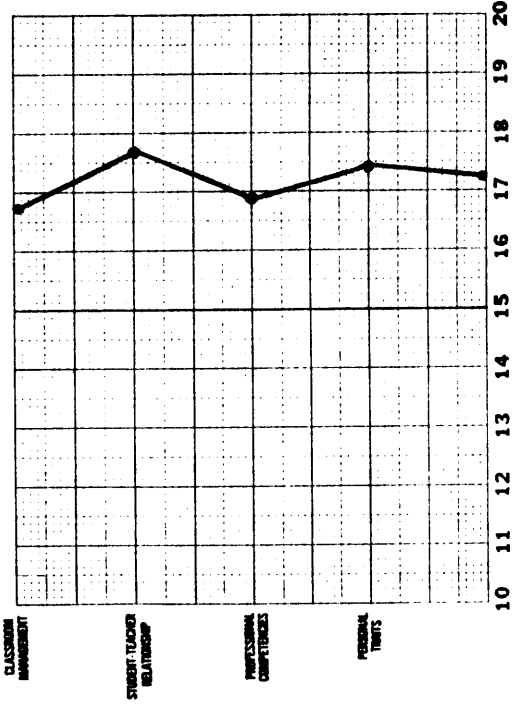
GRAPHS OF  
STUDENT TEACHER RATING SCALE SCORES BY DIAGNOSTIC CATEGORY

STUDENT EVALUATION

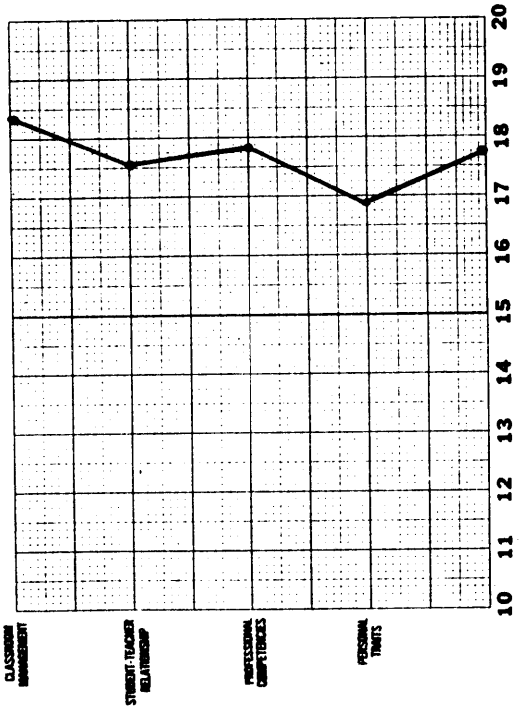
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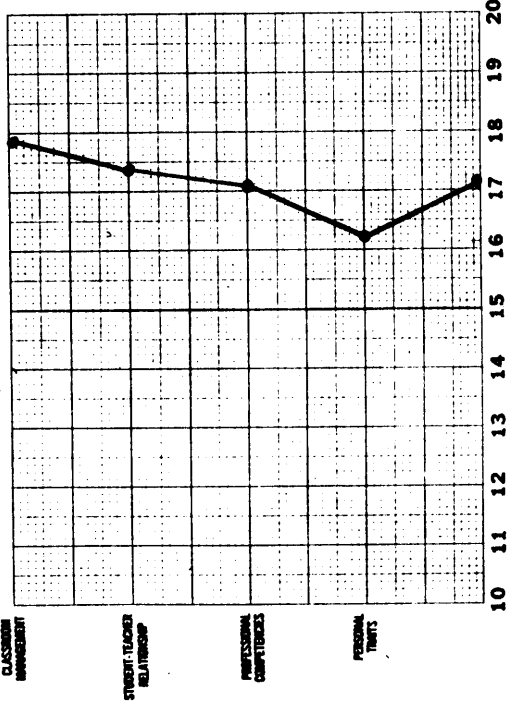
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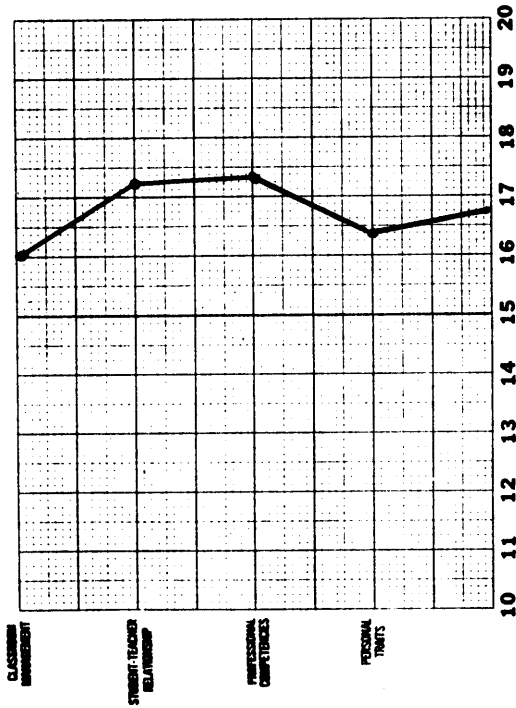
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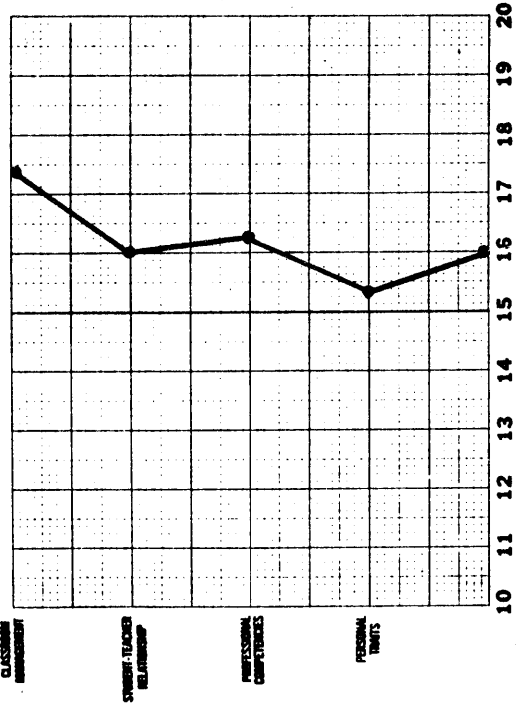
GRAPHS OF  
STUDENT TEACHER RATING SCALE SCORES BY DIAGNOSTIC CATEGORY

STUDENT EVALUATION

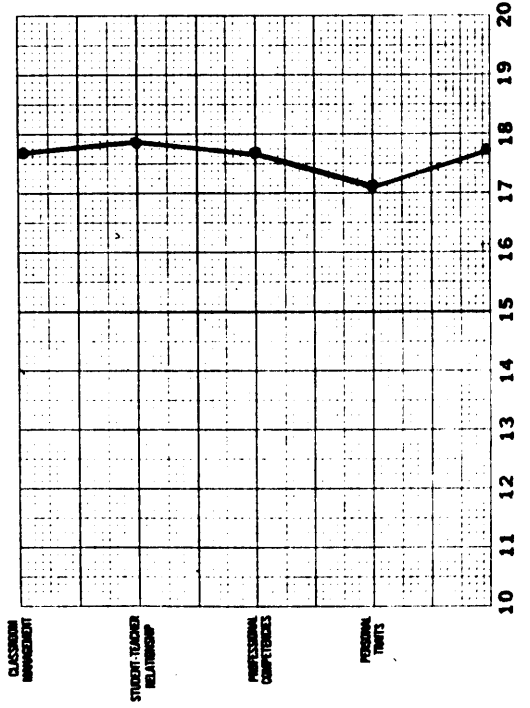
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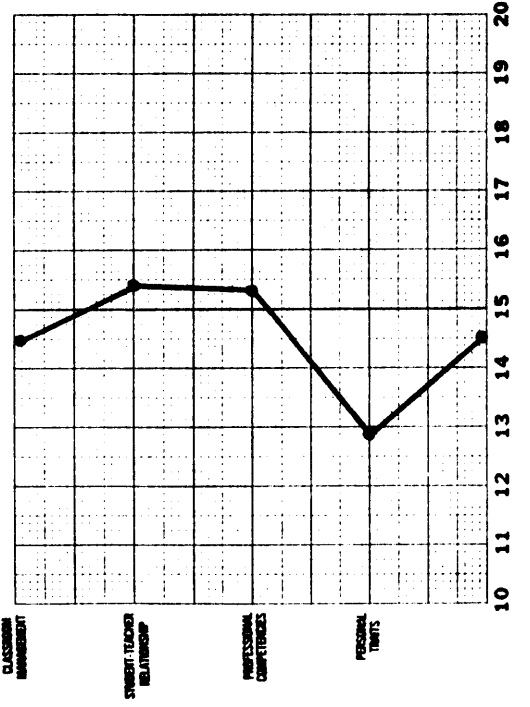
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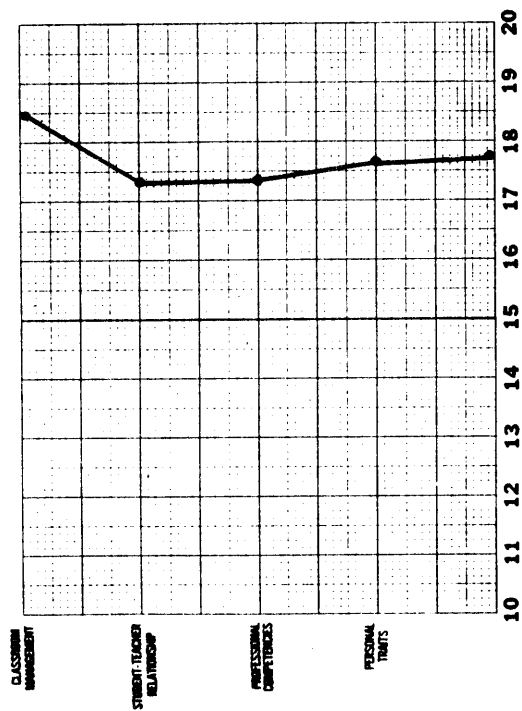
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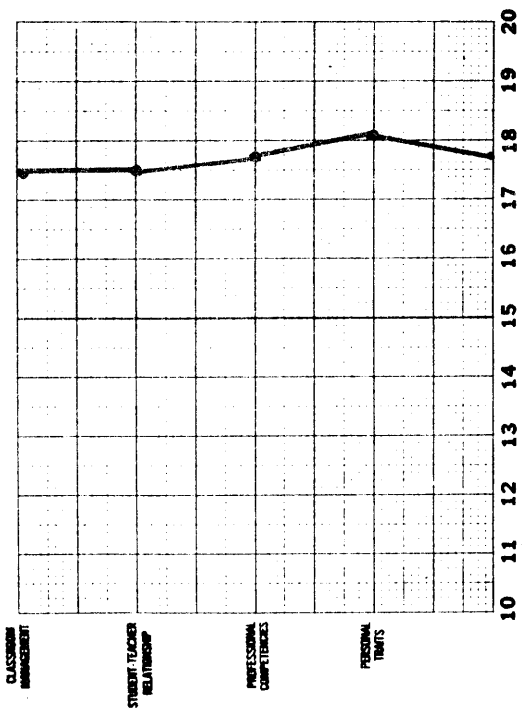
# GRAPHS OF STUDENT TEACHER RATING SCALE SCORES BY DIAGNOSTIC CATEGORY

## STUDENT EVALUATION

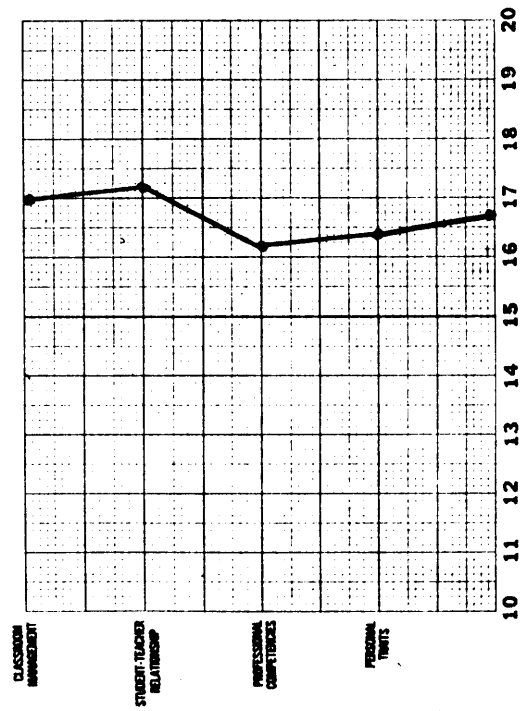
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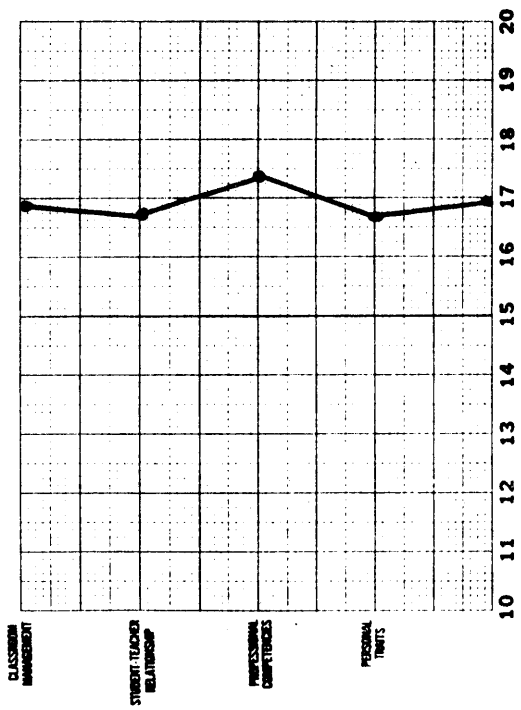
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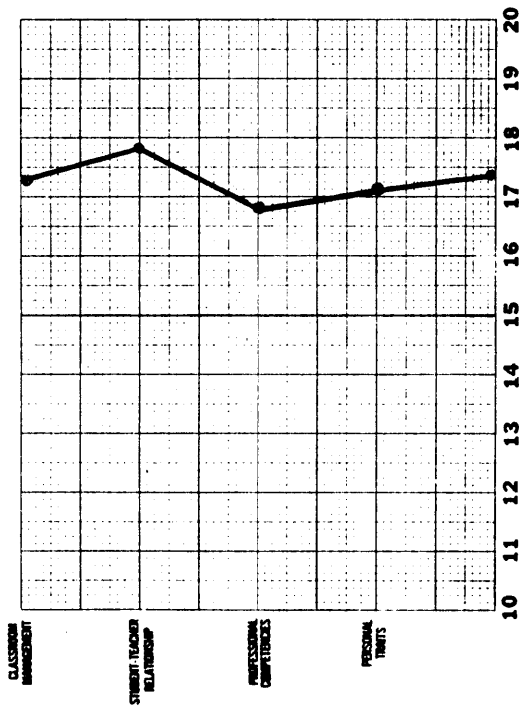
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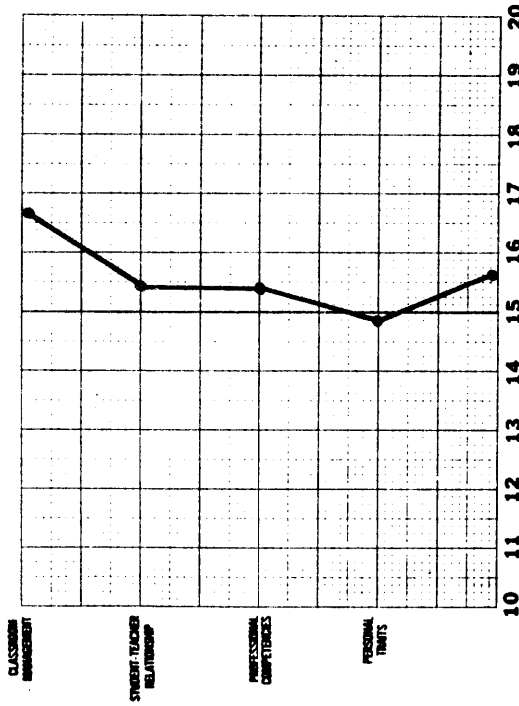
# GRAPHS OF STUDENT TEACHER RATING SCALE SCORES BY DIAGNOSTIC CATEGORY

## STUDENT EVALUATION

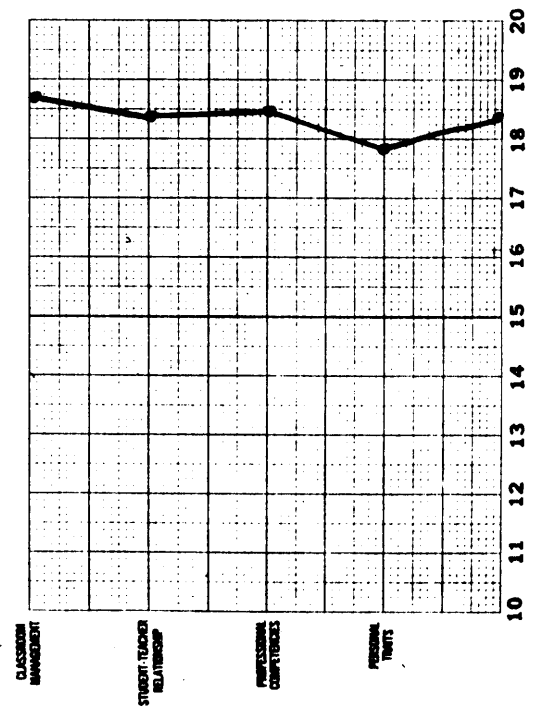
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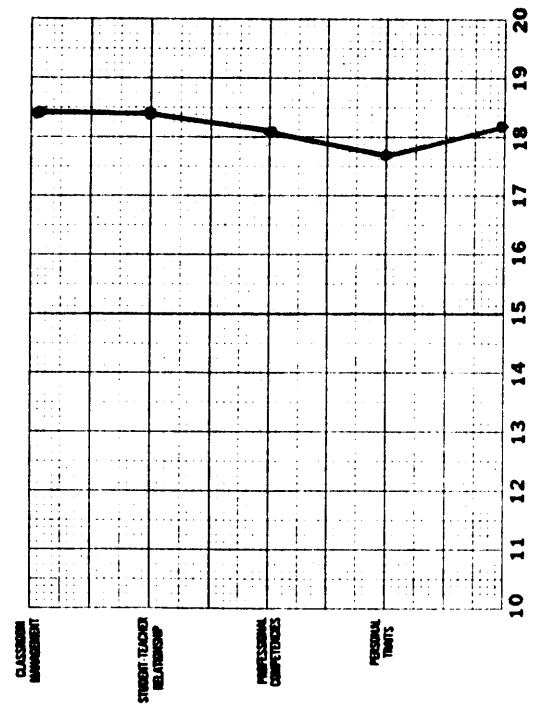
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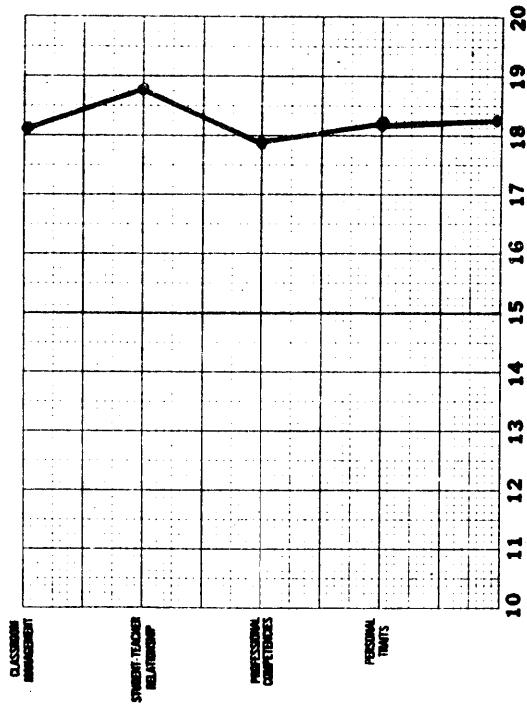
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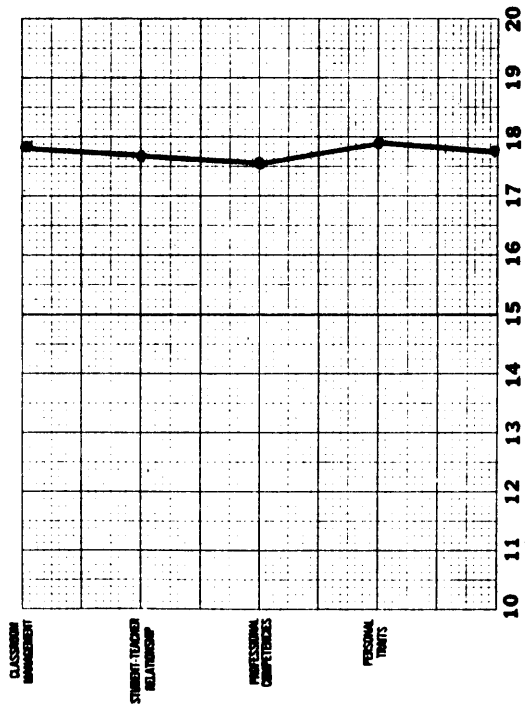
# GRAPHS OF STUDENT TEACHER RATING SCALE SCORES BY DIAGNOSTIC CATEGORY

## STUDENT EVALUATION

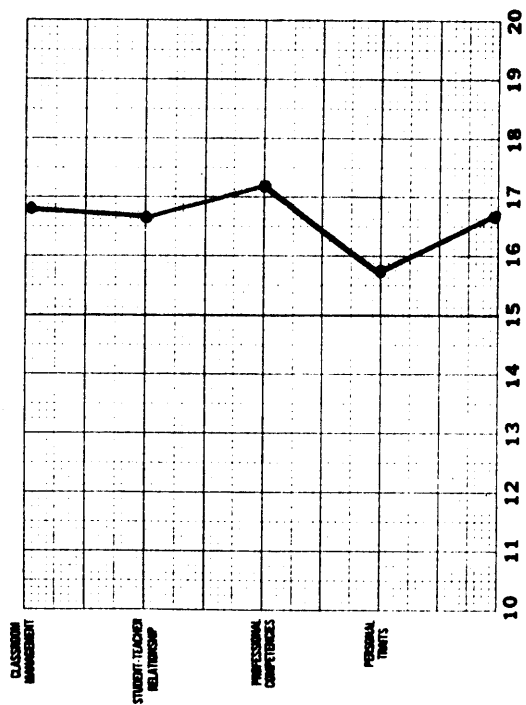
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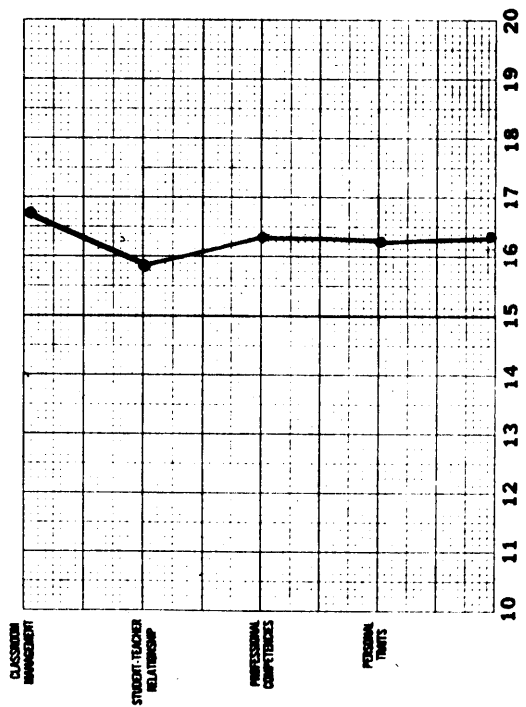
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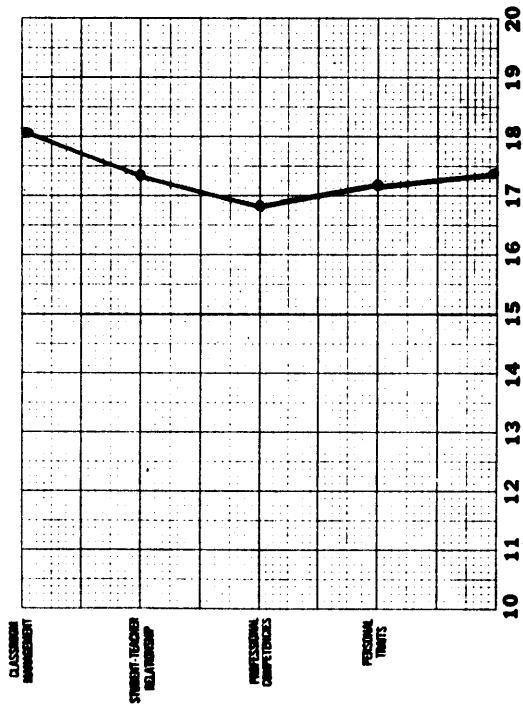
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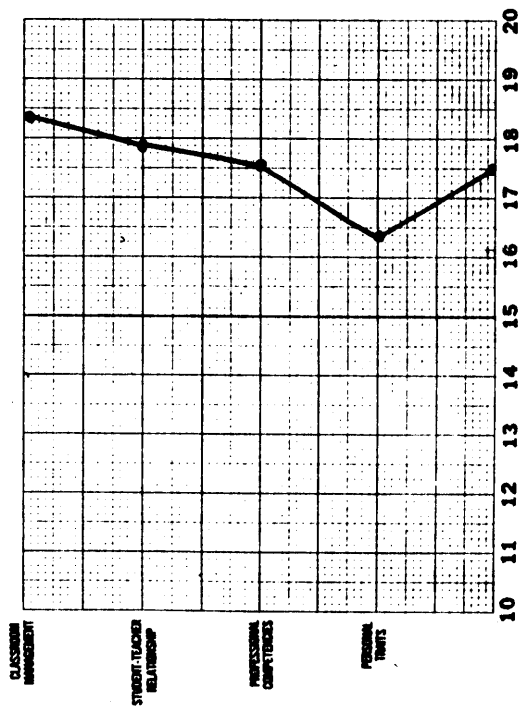
# GRAPHS OF STUDENT TEACHER RATING SCALE SCORES BY DIAGNOSTIC CATEGORY

## STUDENT EVALUATION

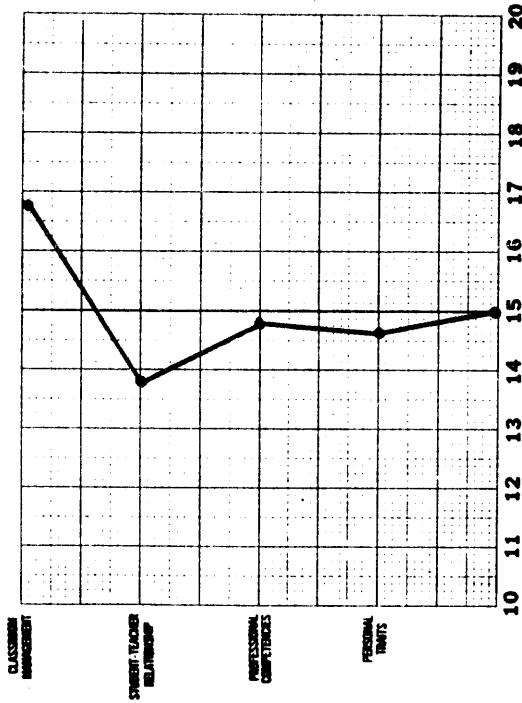
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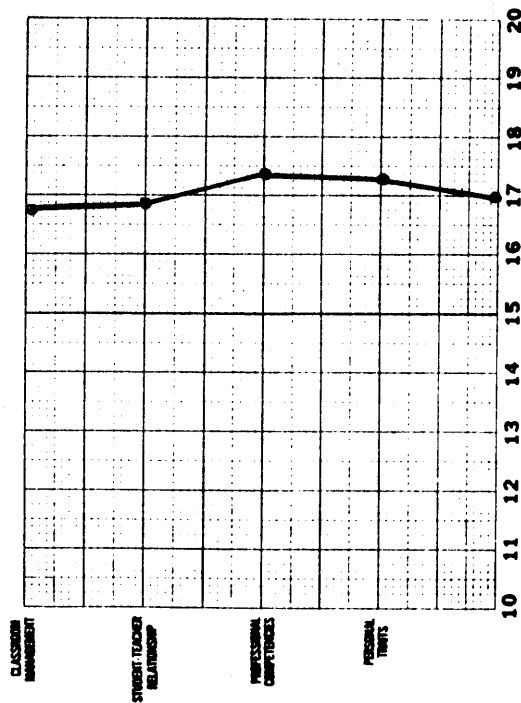
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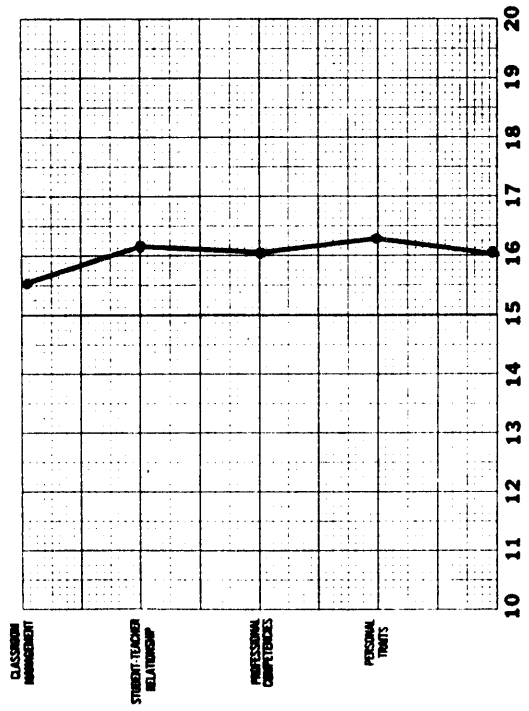


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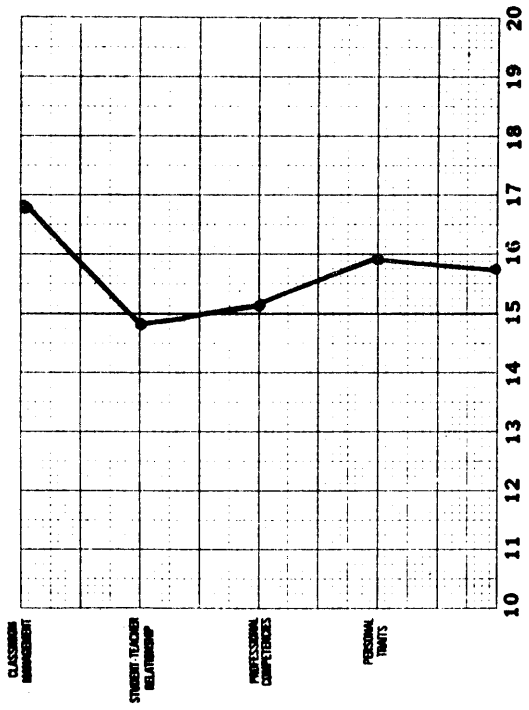


# GRAPHS OF STUDENT TEACHER RATING SCALE SCORES BY DIAGNOSTIC CATEGORY

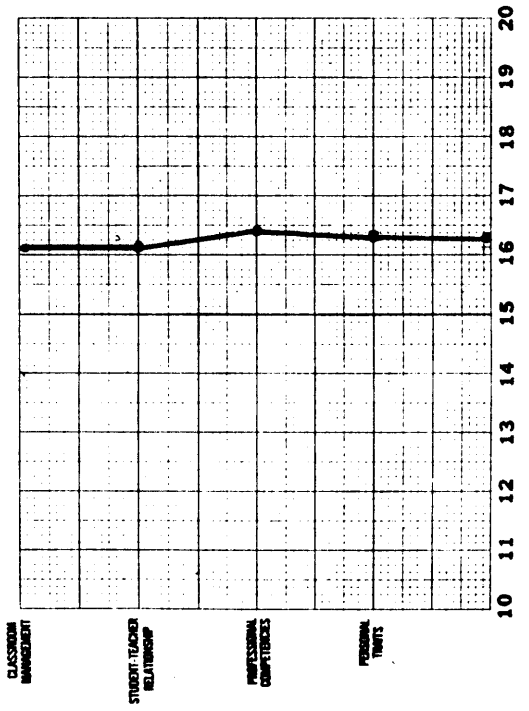
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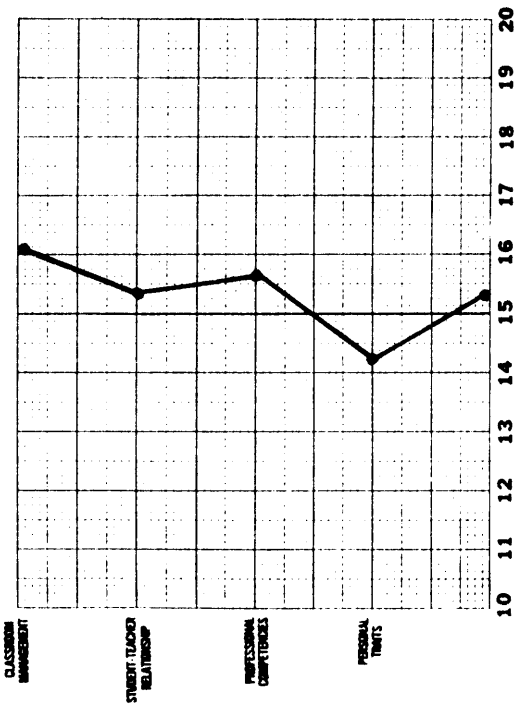
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TEACHER NUMBER 44



TEACHER NUMBER 48

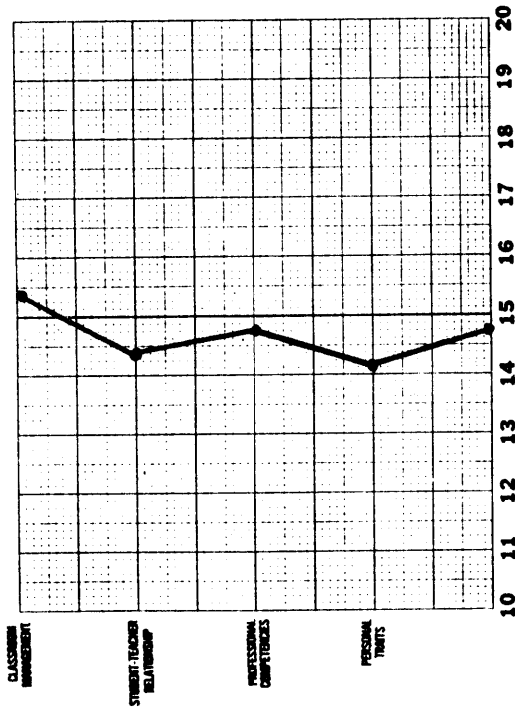


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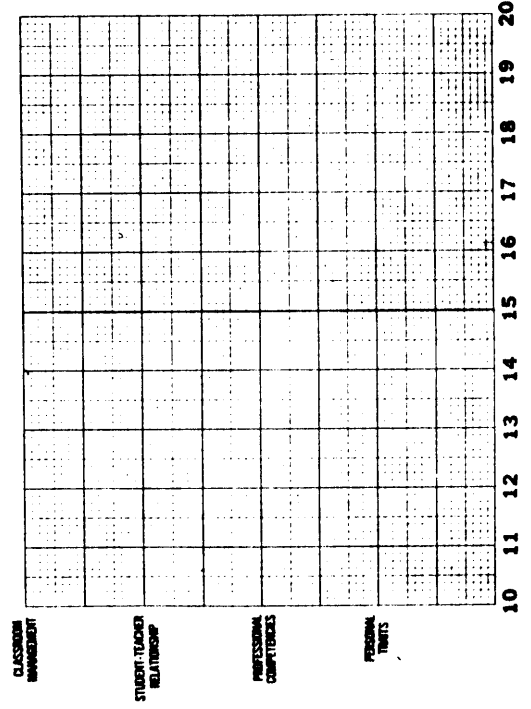
## STUDENT TEACHER RATING SCALE SCORES BY DIAGNOSTIC CATEGORY

### STUDENT EVALUATION

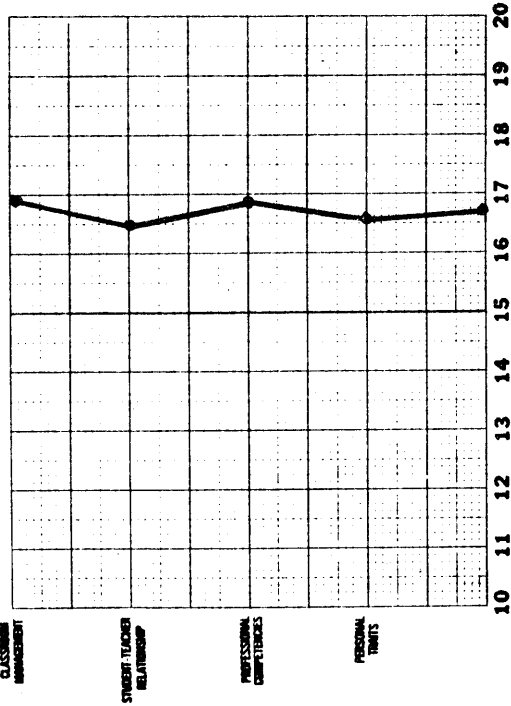
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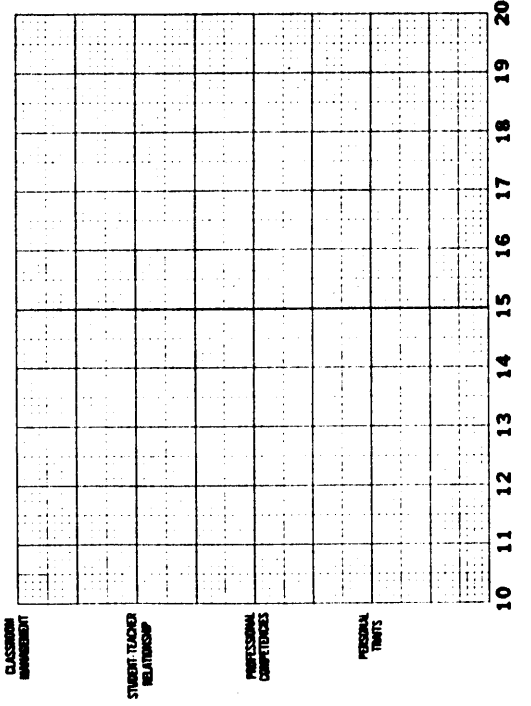
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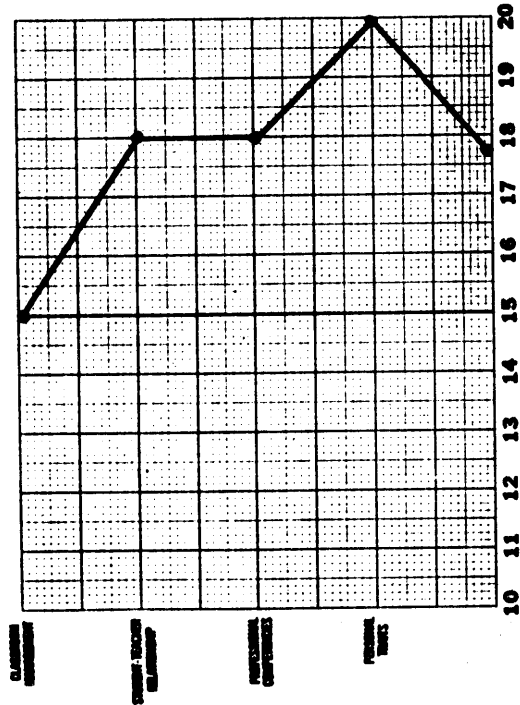


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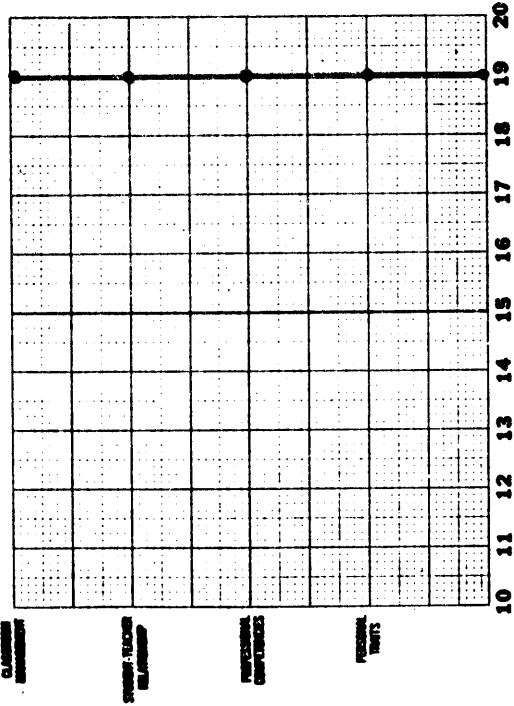


# GRAPHS OF COOPERATING TEACHER EVALUATION STUDENT TEACHER RATING SCALE SCORES BY DIAGNOSTIC CATEGORY

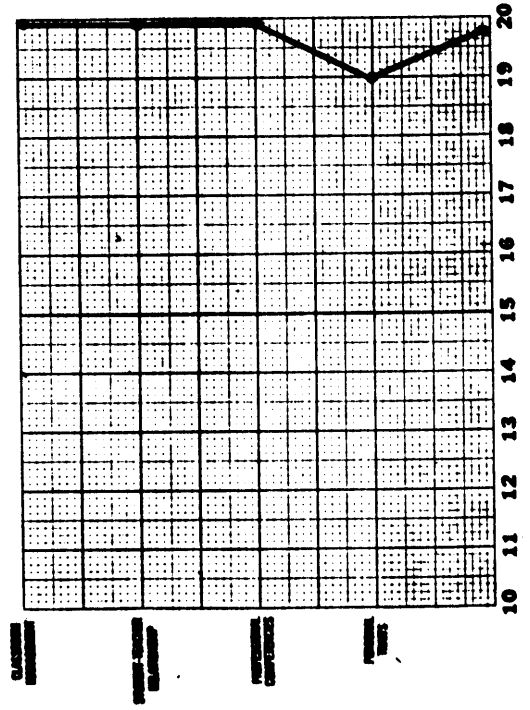
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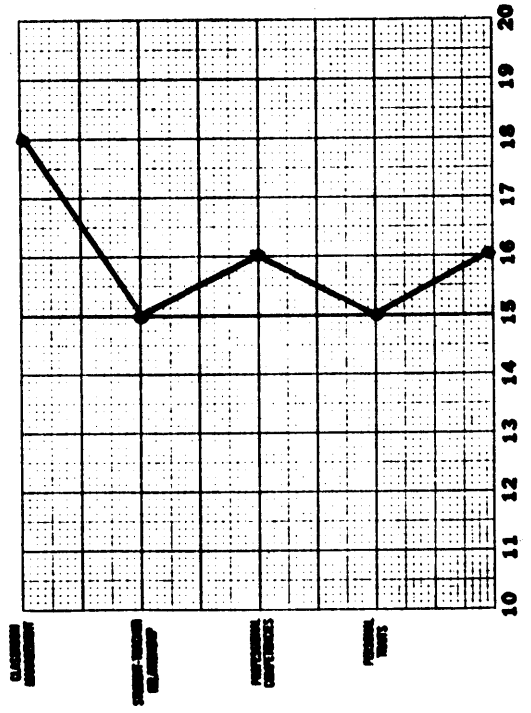
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TEACHER NUMBER 3

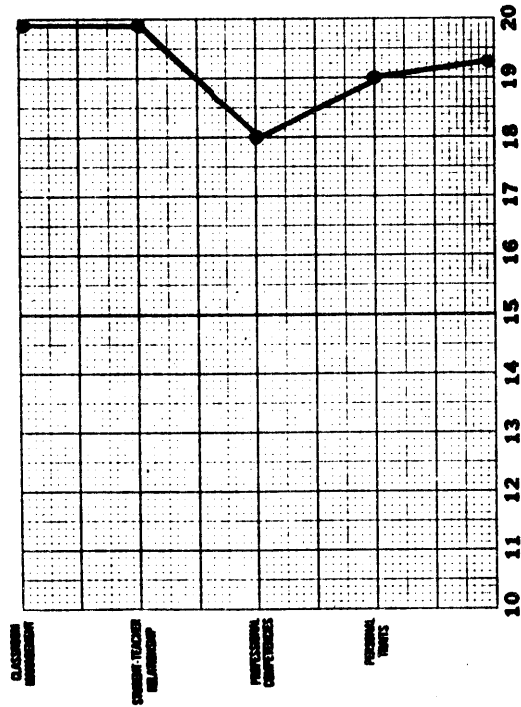


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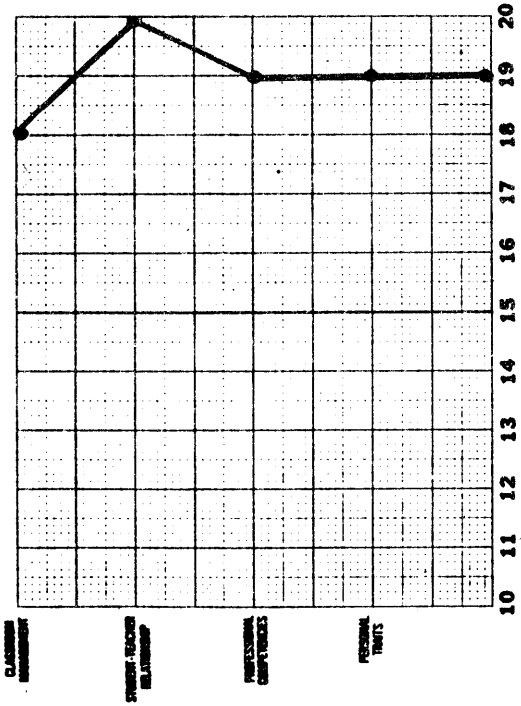


# GRAPHS OF COOPERATING TEACHER EVALUATION STUDENT TEACHER RATING SCALE SCORES BY DIAGNOSTIC CATEGORY

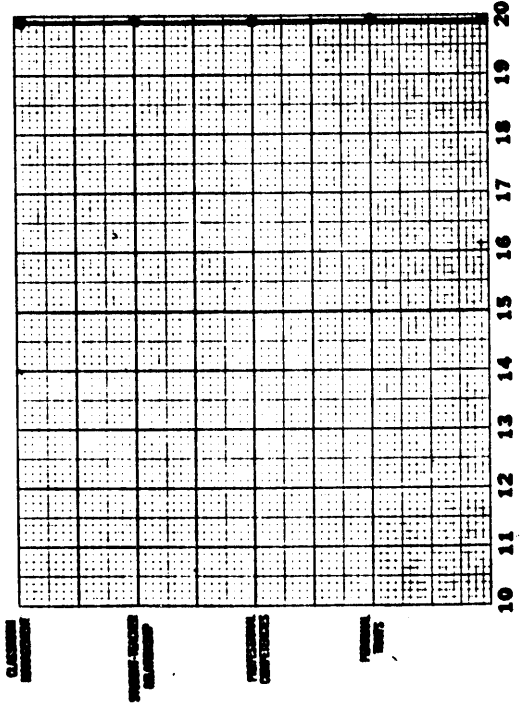
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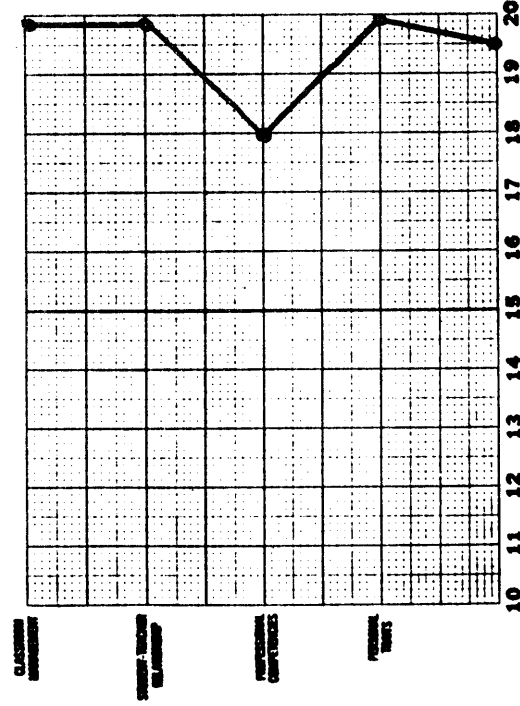
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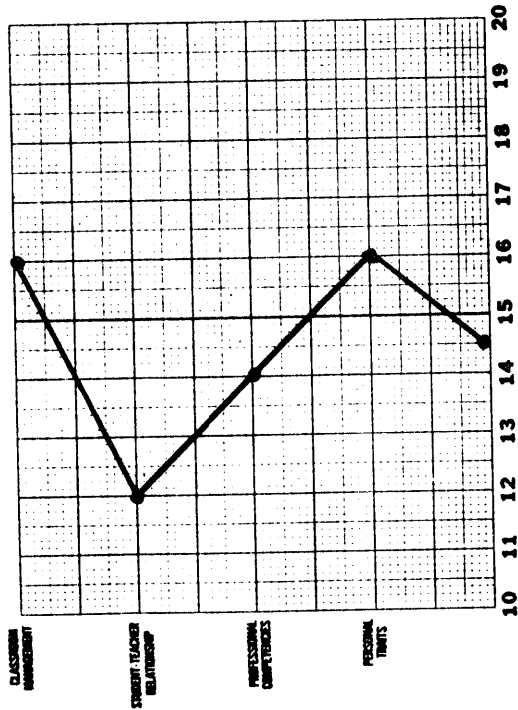


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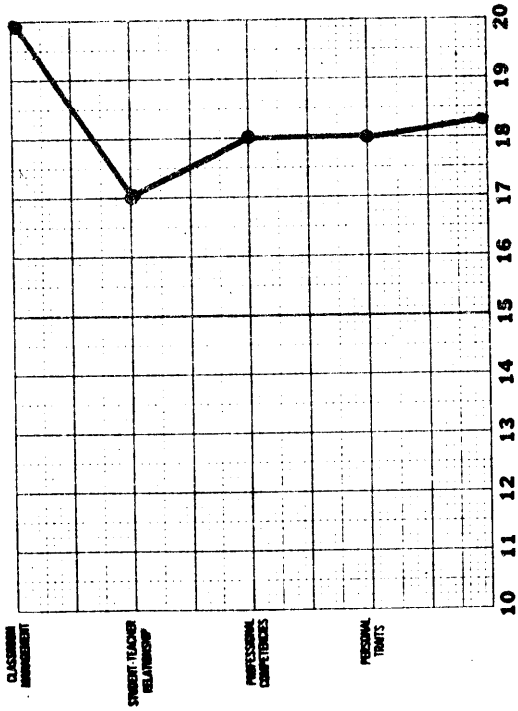


# GRAPHS OF COOPERATING TEACHER EVALUATION STUDENT TEACHER RATING SCALE SCORES BY DIAGNOSTIC CATEGORY

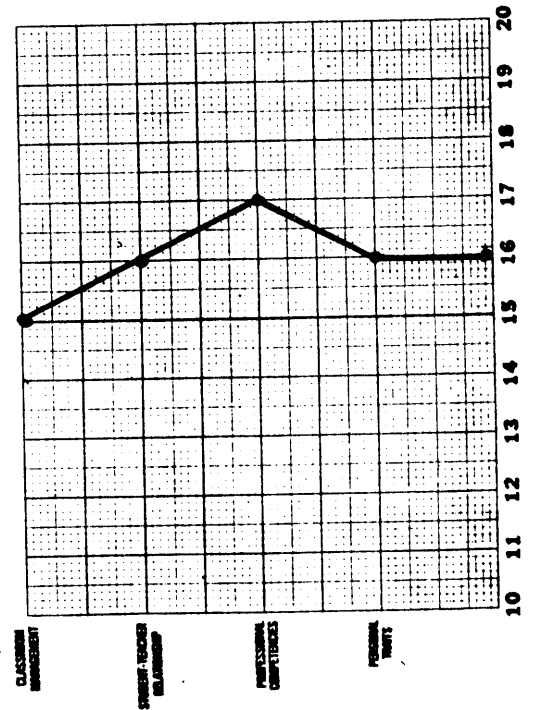
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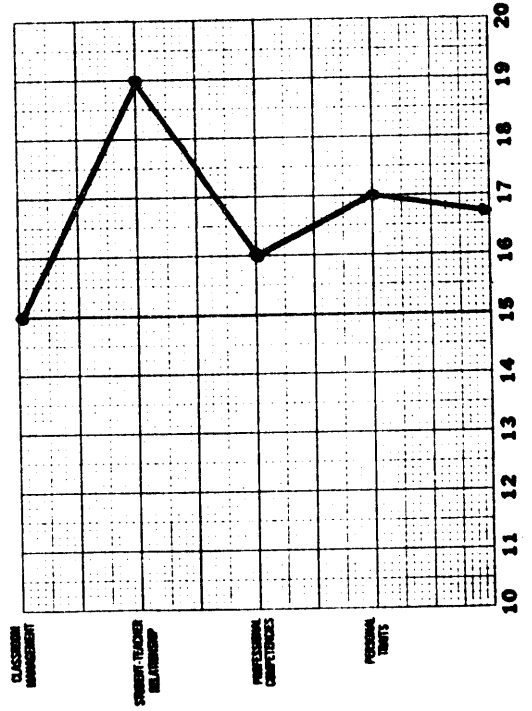
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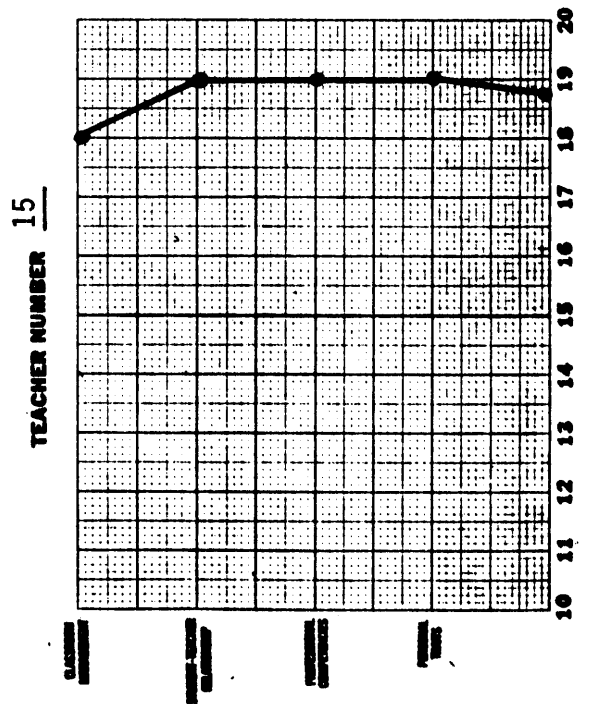
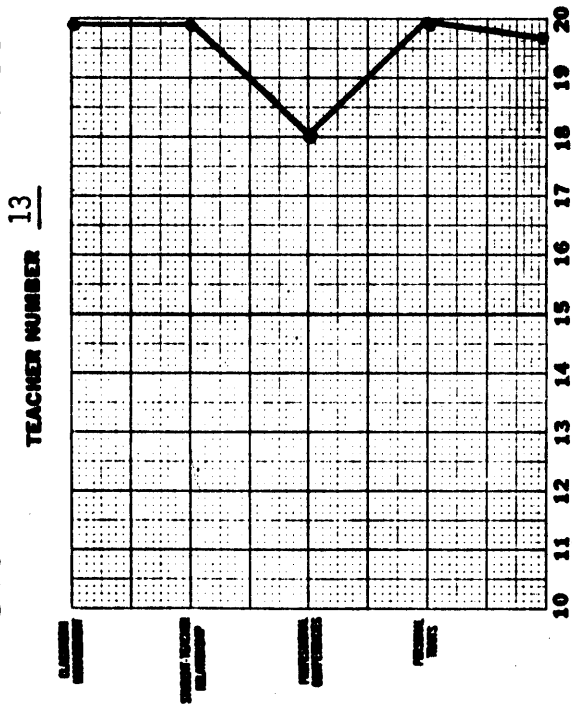
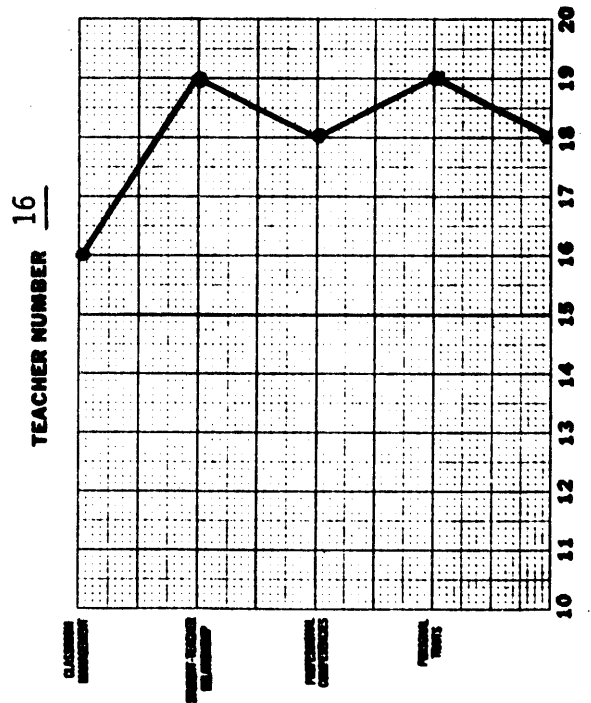
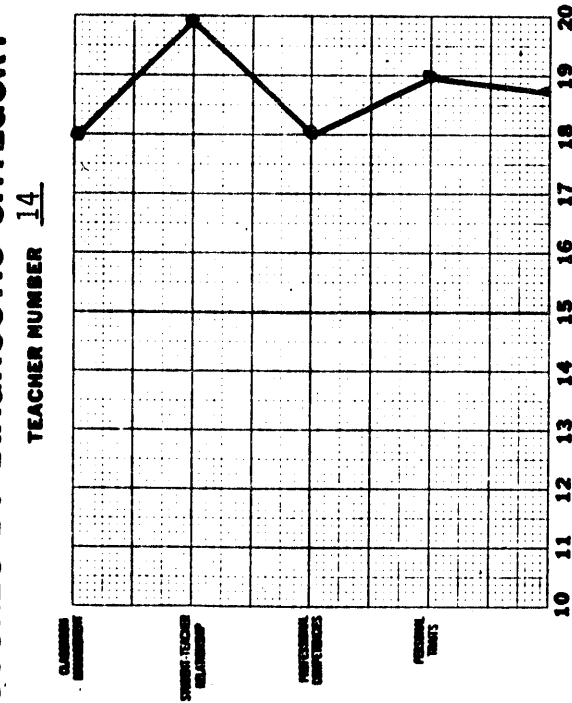
TEACHER NUMBER 11



TEACHER NUMBER 12

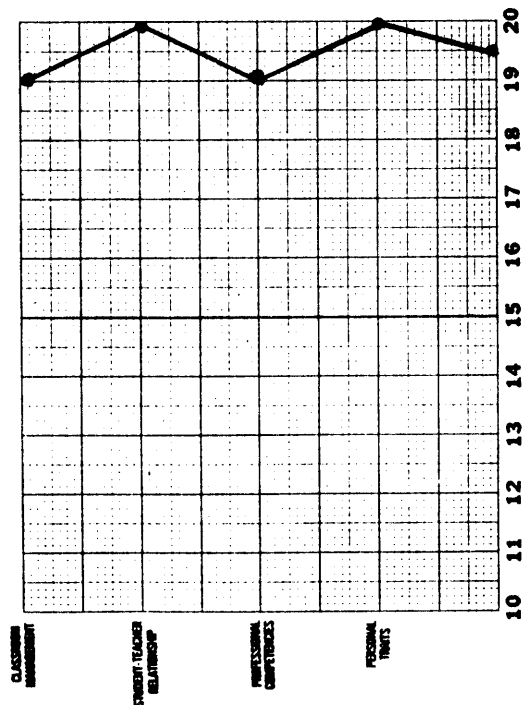


# GRAPHS OF COOPERATING TEACHER EVALUATION STUDENT TEACHER RATING SCALE SCORES BY DIAGNOSTIC CATEGORY

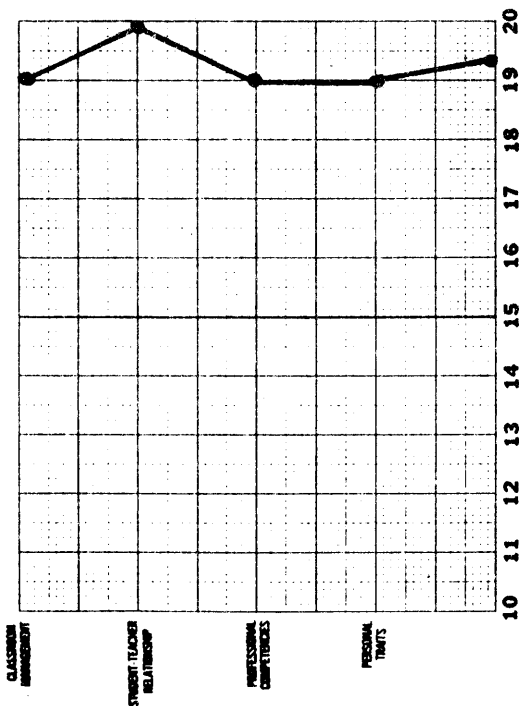


GRAPHS OF  
COOPERATING TEACHER EVALUATION  
STUDENT TEACHER RATING SCALE SCORES BY DIAGNOSTIC CATEGORY

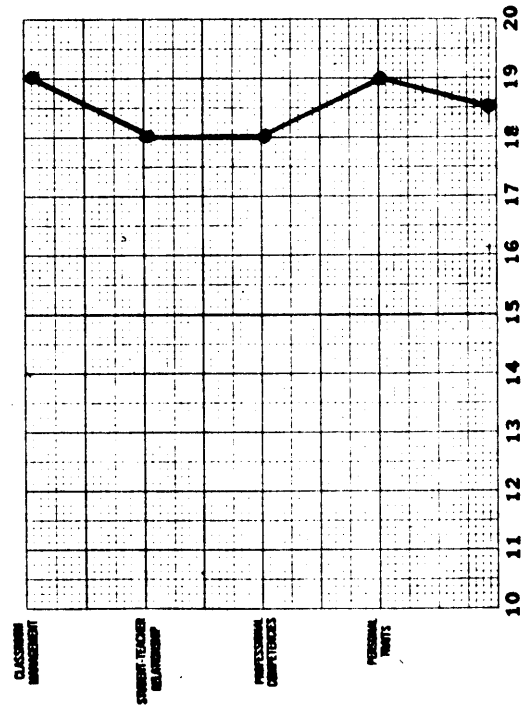
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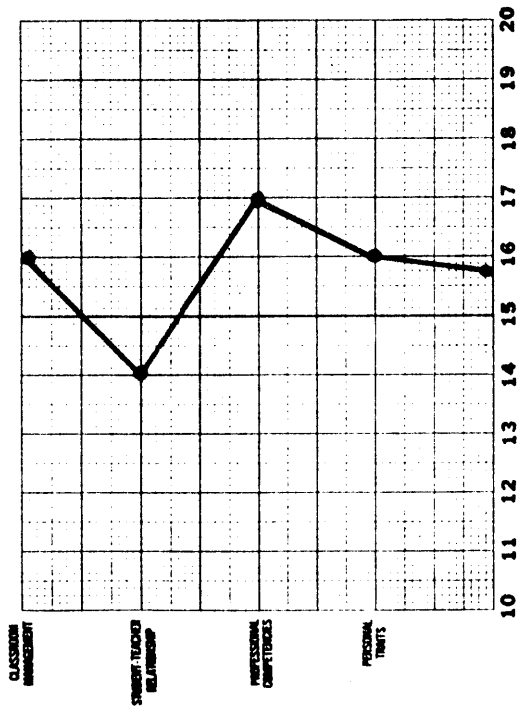
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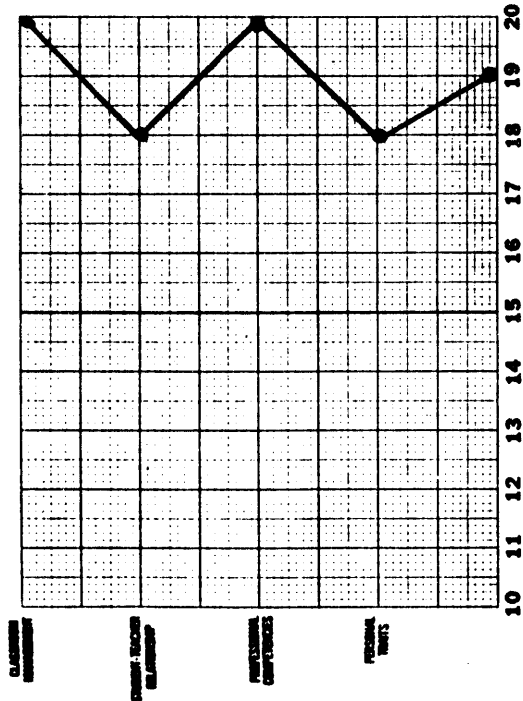


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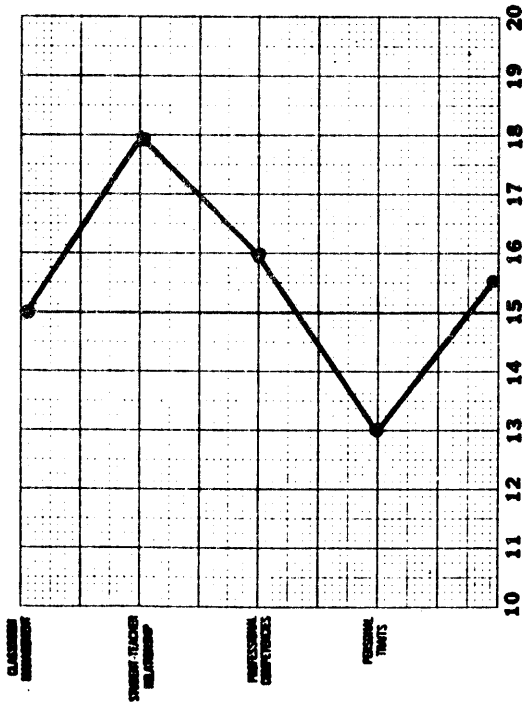


GRAPHS OF  
COOPERATING TEACHER EVALUATION  
STUDENT TEACHER RATING SCALE SCORES BY DIAGNOSTIC CATEGORY

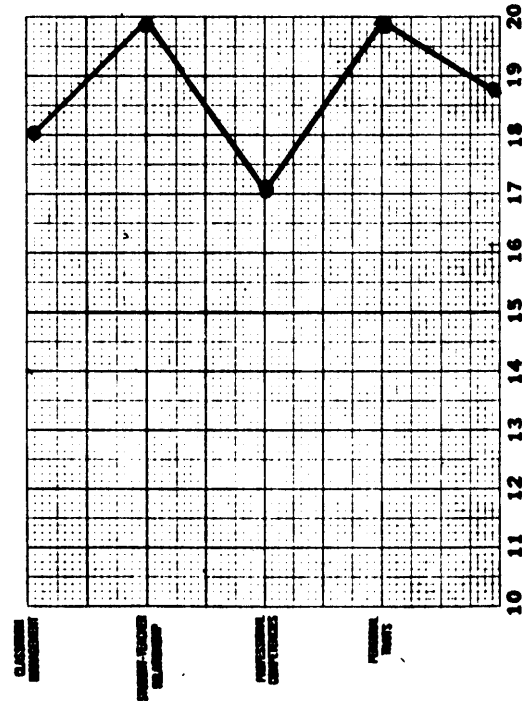
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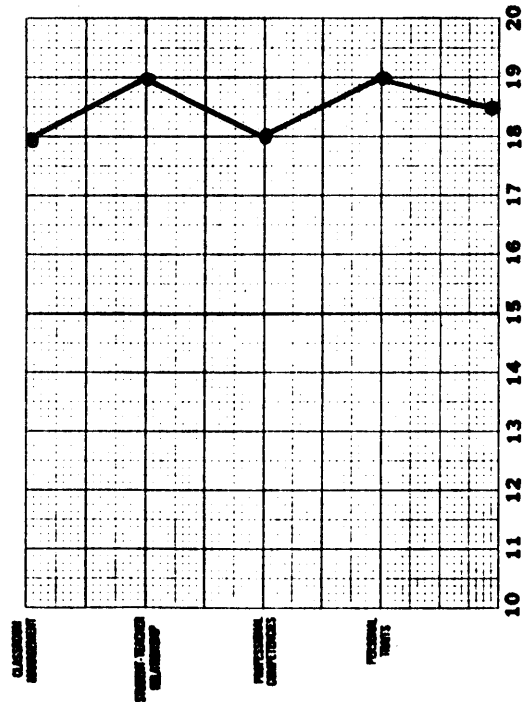
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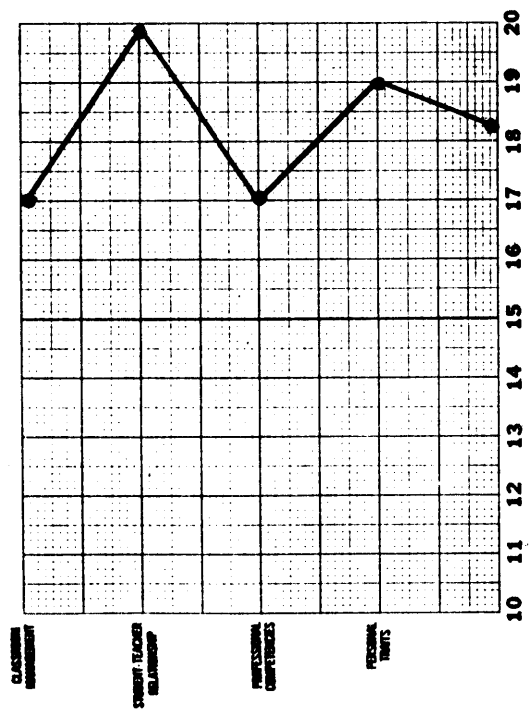


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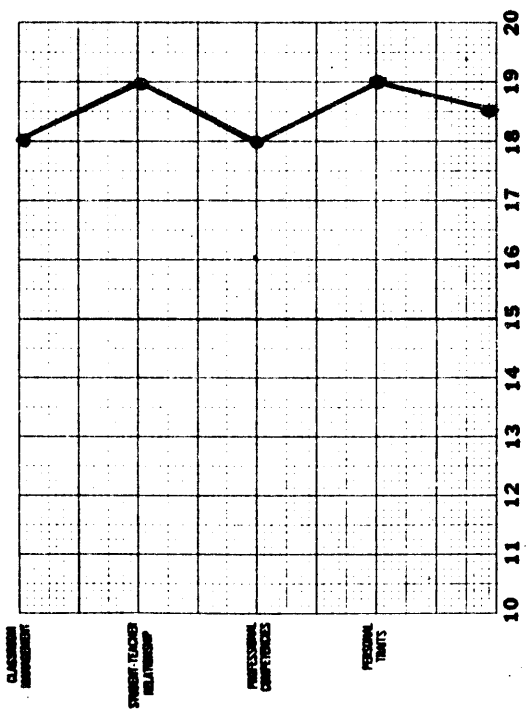


GRAPHS OF  
COOPERATING TEACHER EVALUATION  
STUDENT TEACHER RATING SCALE SCORES BY DIAGNOSTIC CATEGORY

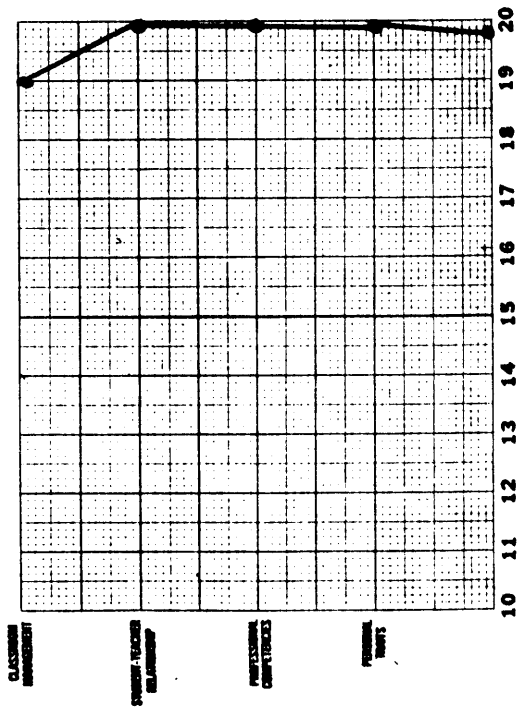
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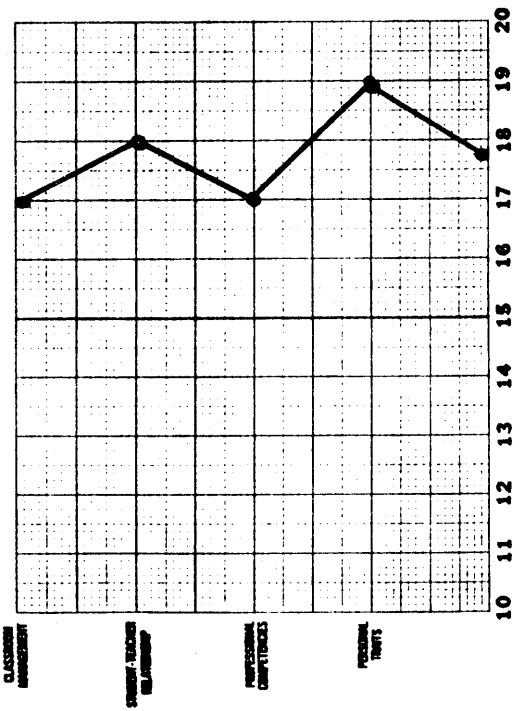
TEACHER NUMBER 29



TEACHER NUMBER 30



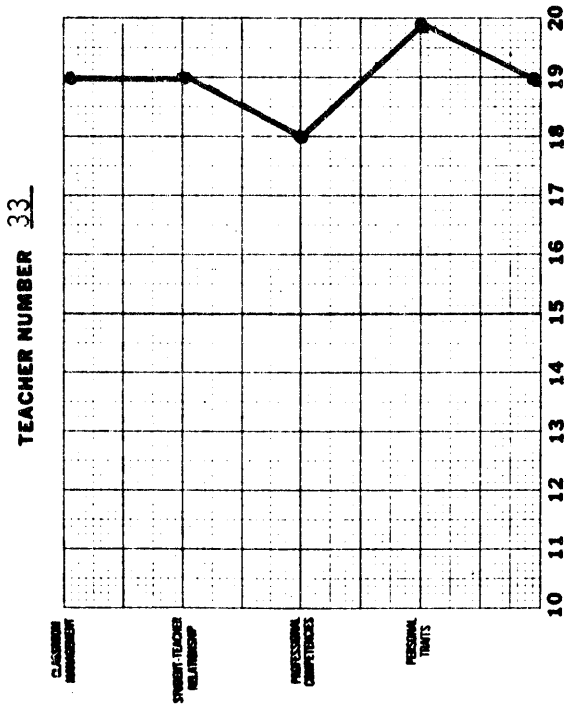
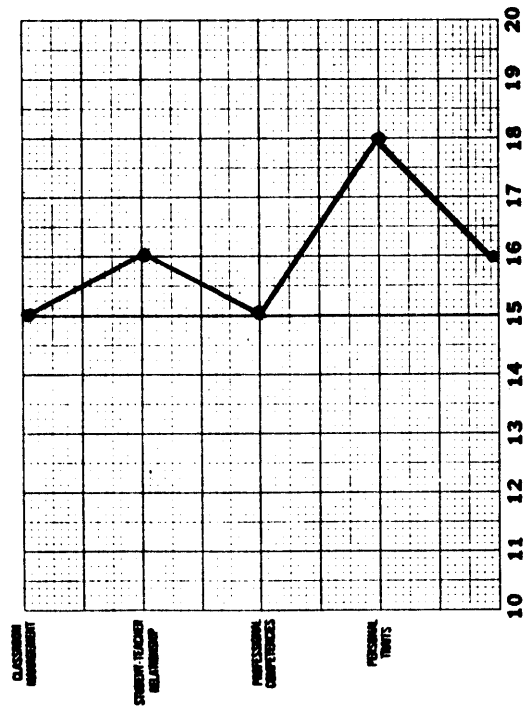
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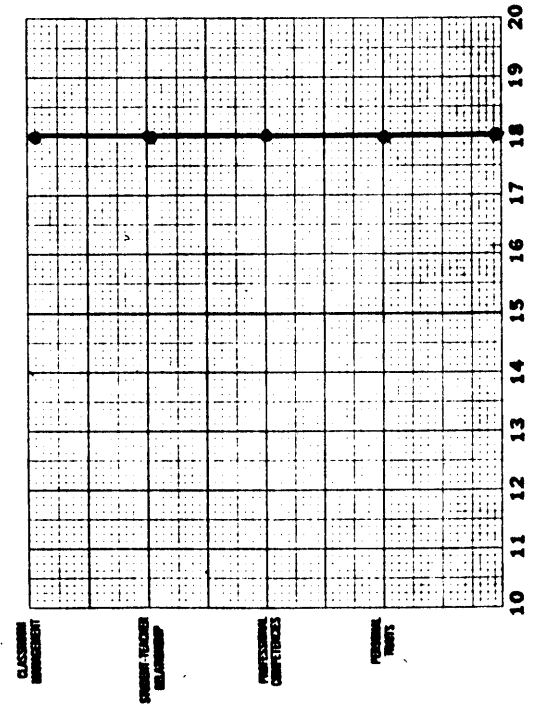
# GRAPHS OF STUDENT TEACHER RATING SCALE SCORES BY DIAGNOSTIC CATEGORY COOPERATING TEACHER EVALUATION

215

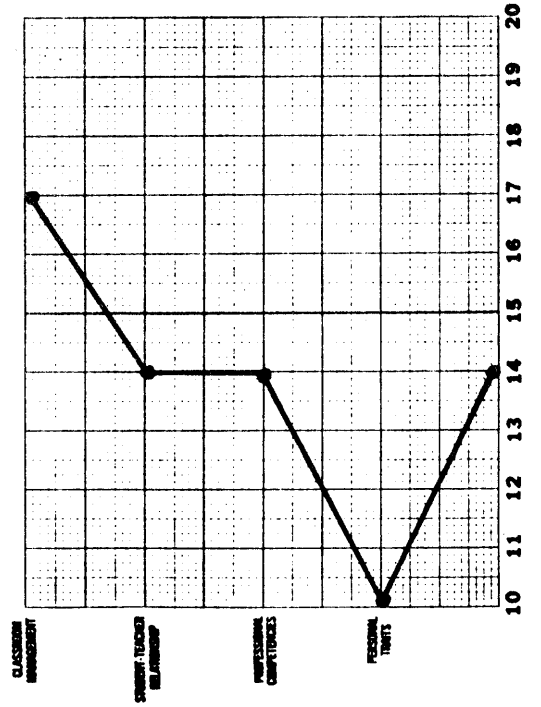
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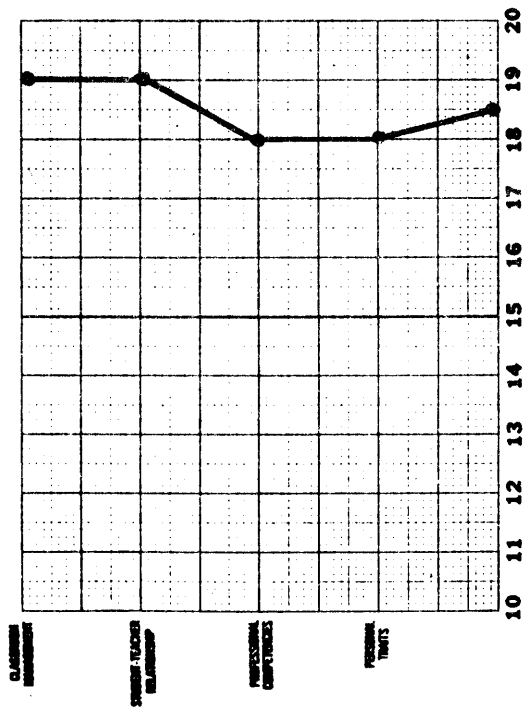
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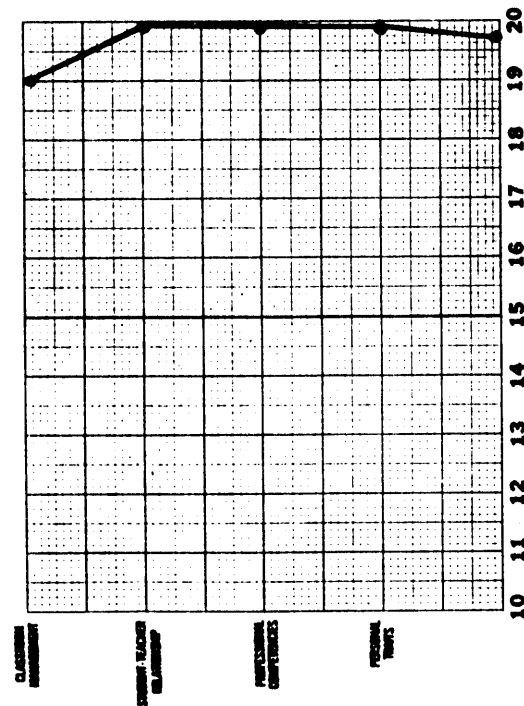
# GRAPHS OF STUDENT TEACHER RATING SCALE SCORES BY DIAGNOSTIC CATEGORY

## COOPERATING TEACHER EVALUATION

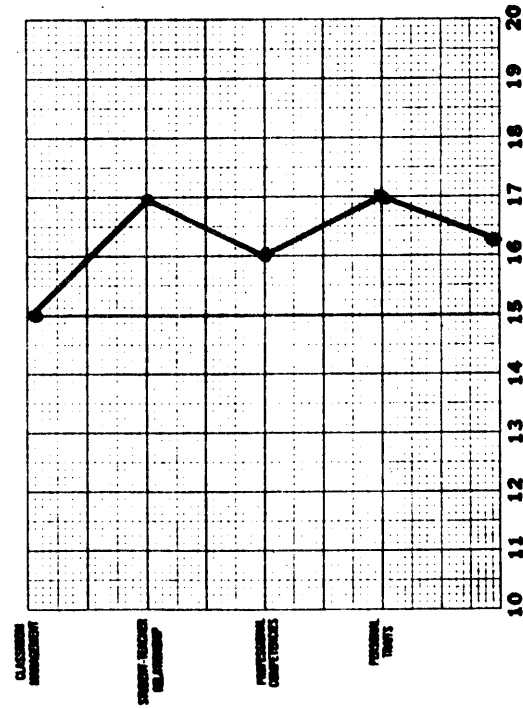
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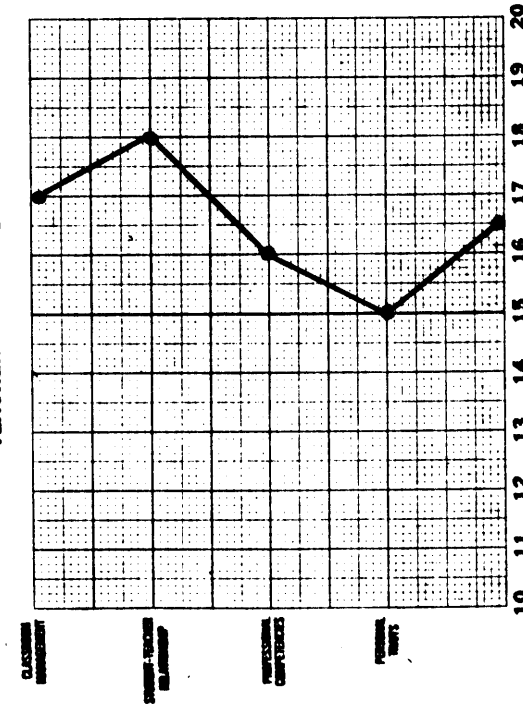
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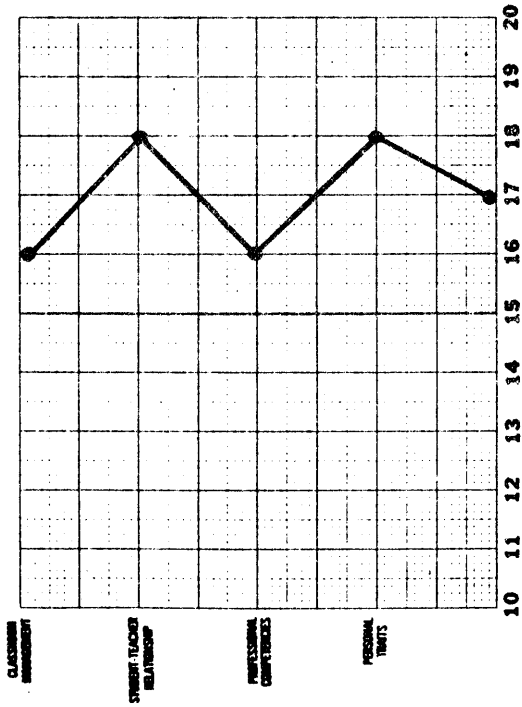
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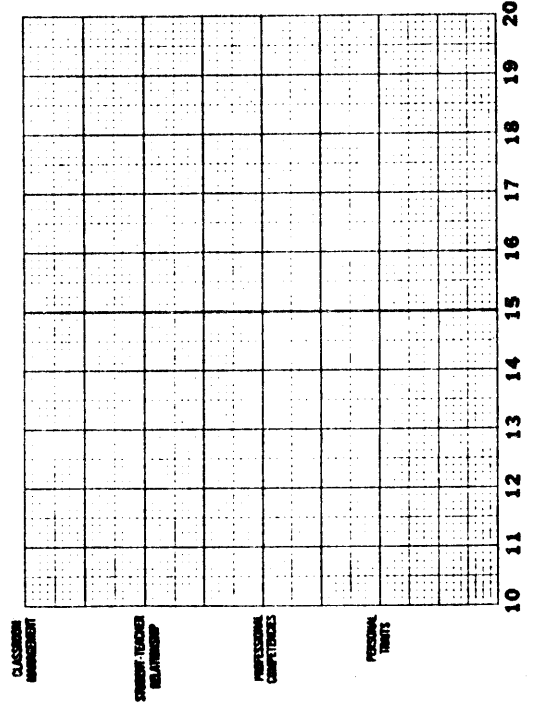
# GRAPHS OF STUDENT TEACHER RATING SCALE SCORES BY DIAGNOSTIC CATEGORY

## COOPERATING TEACHER EVALUATION

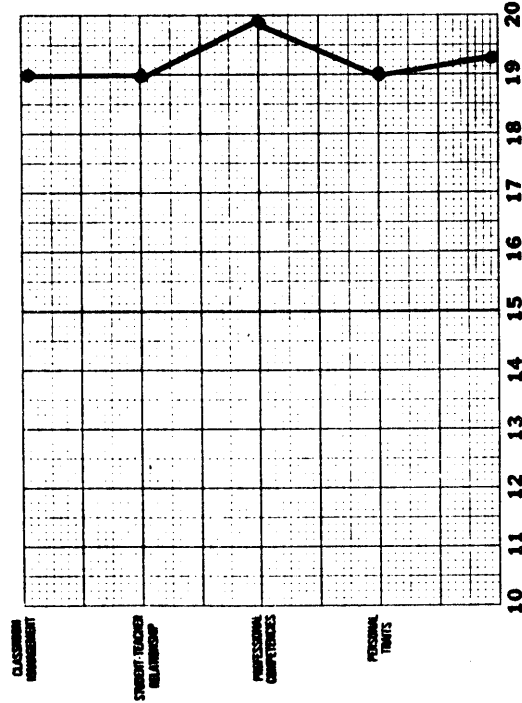
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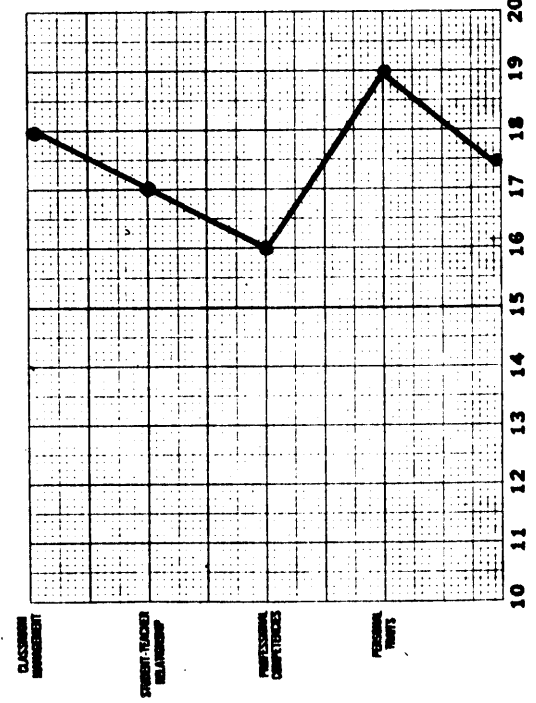
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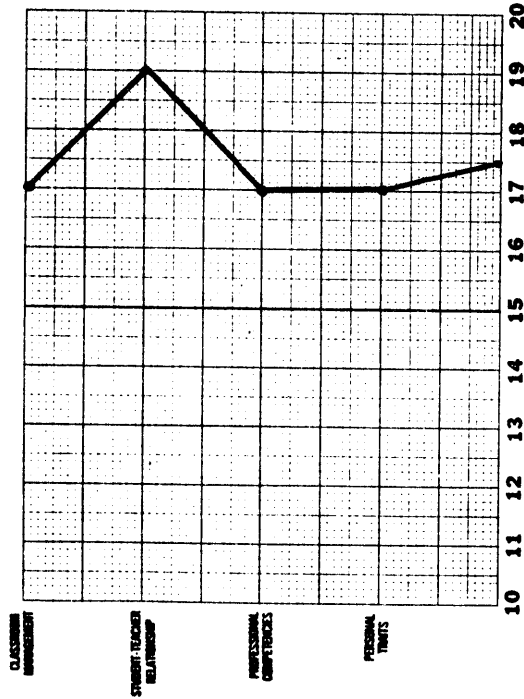
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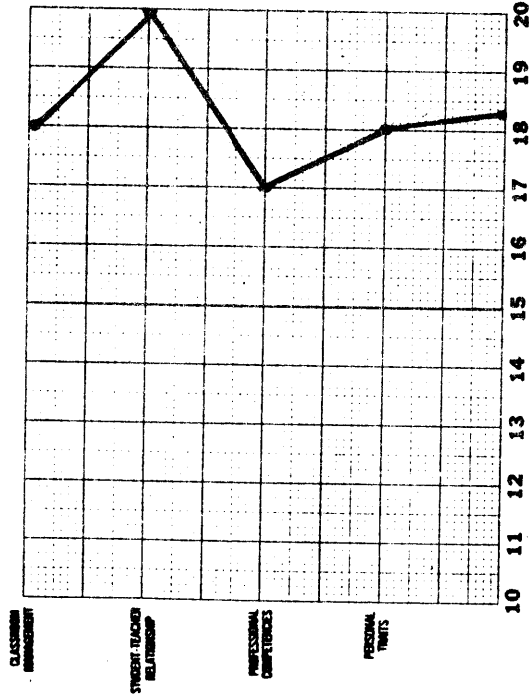
# GRAPHS OF STUDENT TEACHER RATING SCALE SCORES BY DIAGNOSTIC CATEGORY

## SUPERVISOR EVALUATION

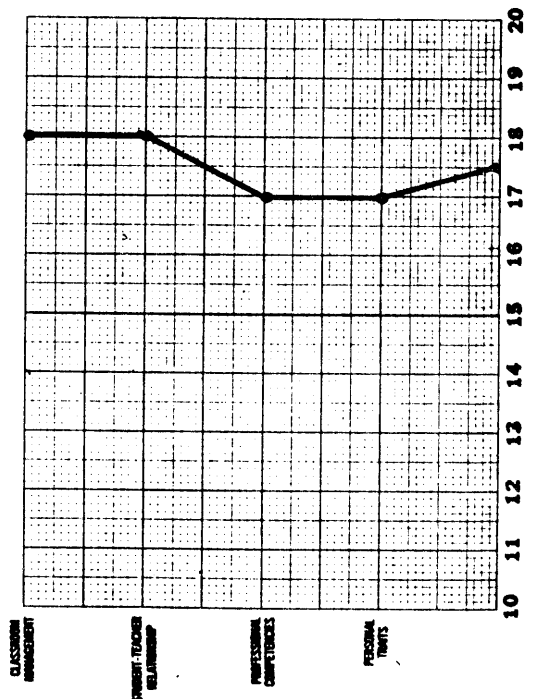
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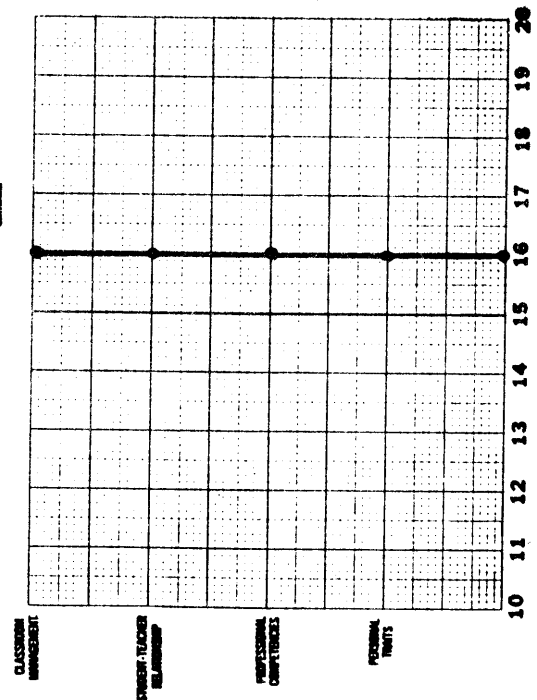
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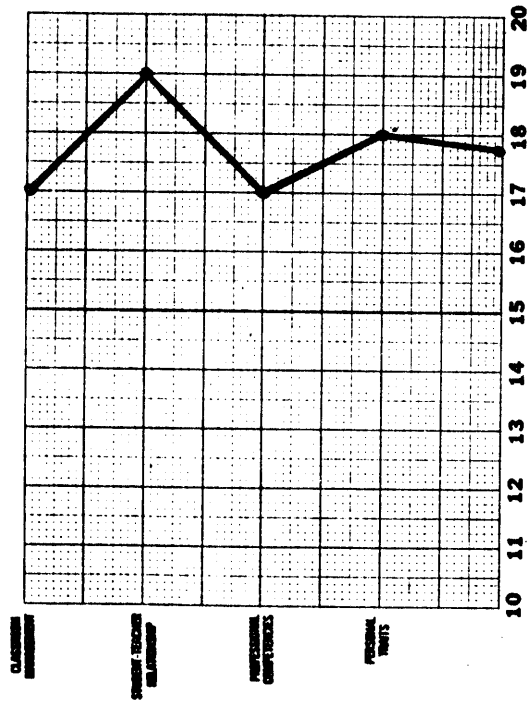
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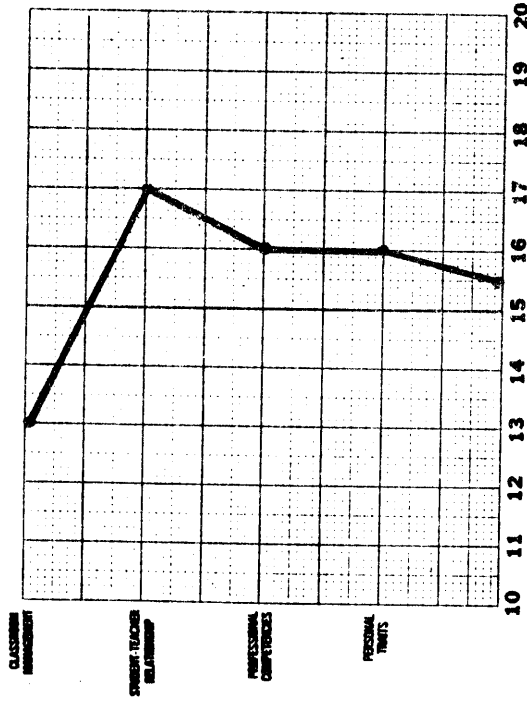
# GRAPHS OF STUDENT TEACHER RATING SCALE SCORES BY DIAGNOSTIC CATEGORY

## SUPERVISOR EVALUATION

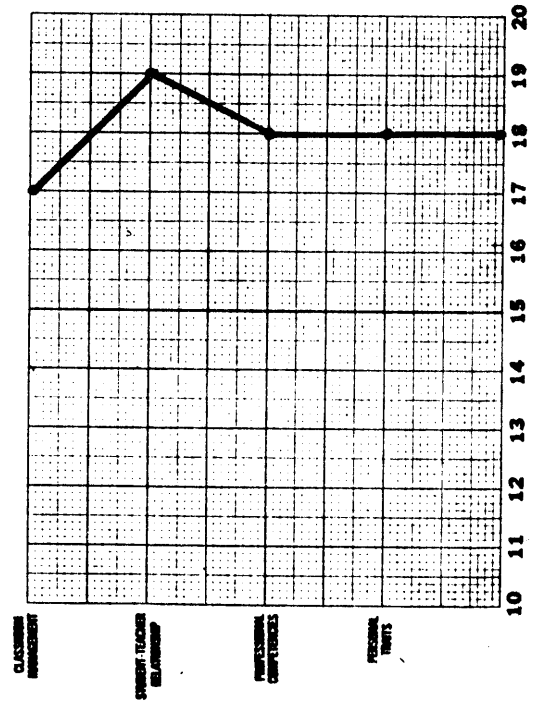
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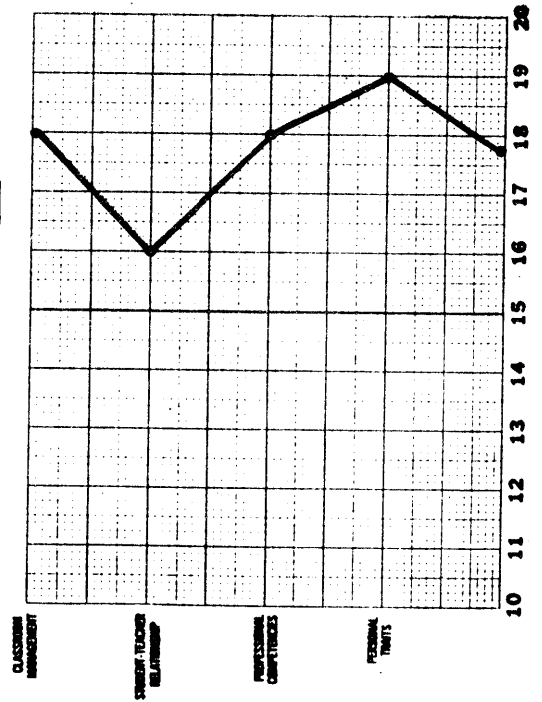
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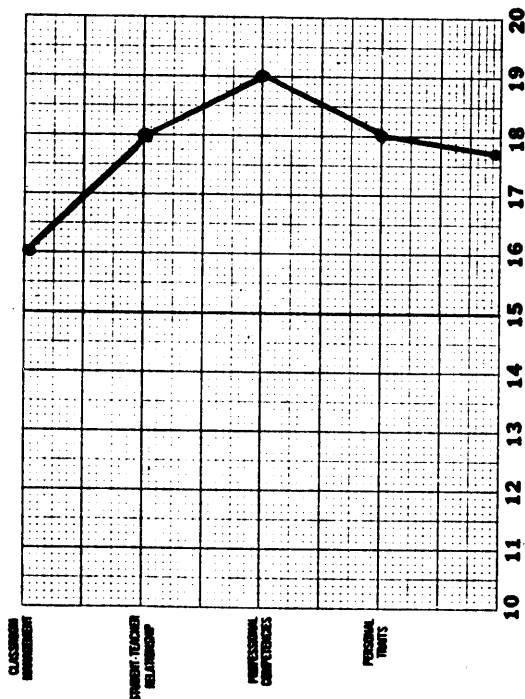
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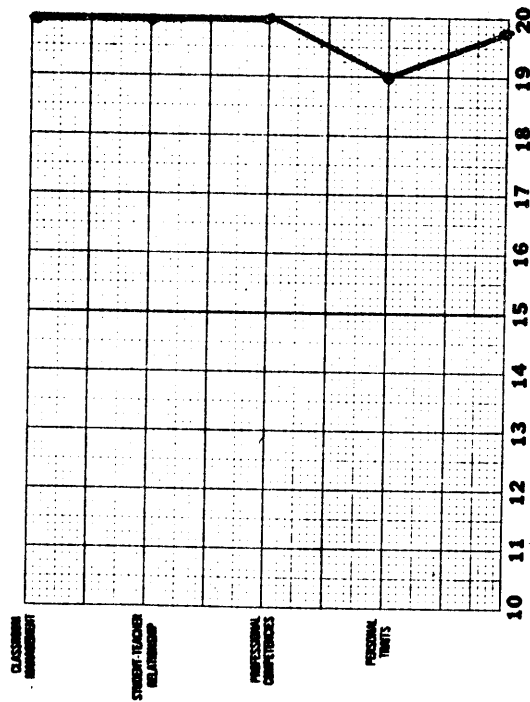
# GRAPHS OF STUDENT TEACHER RATING SCALE SCORES BY DIAGNOSTIC CATEGORY

## SUPERVISOR EVALUATION

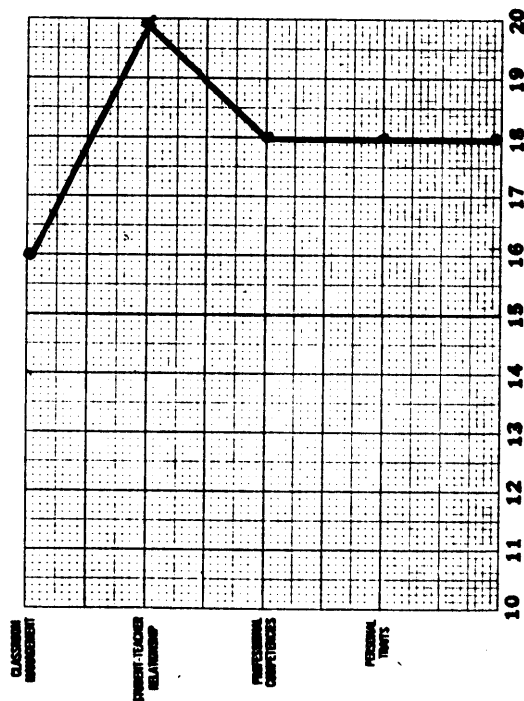
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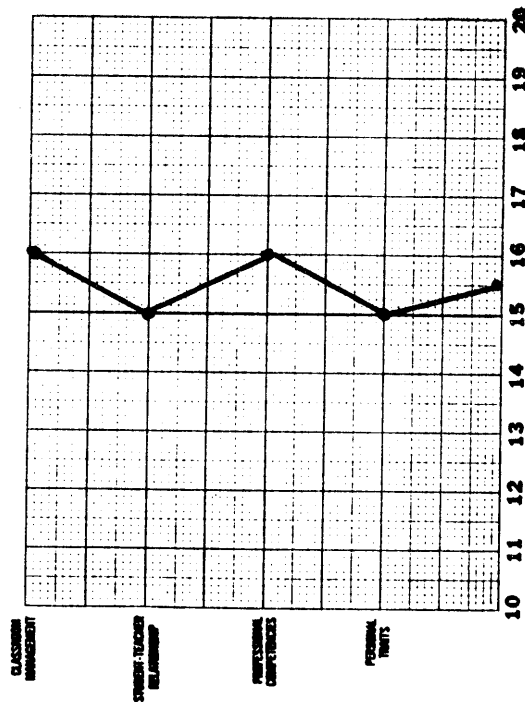
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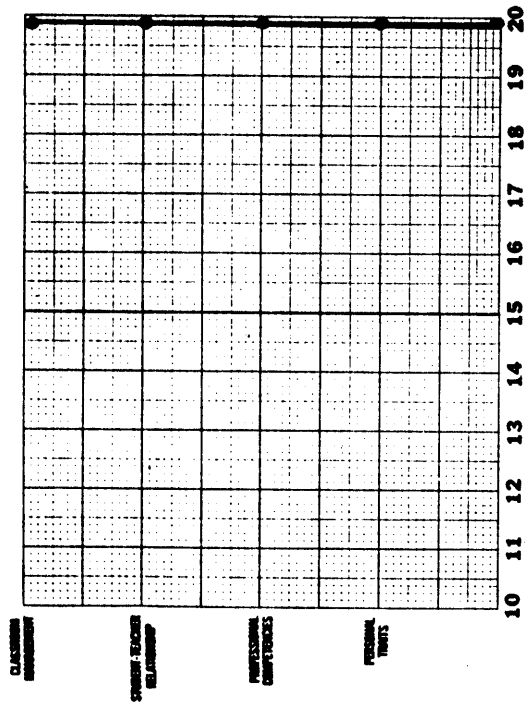
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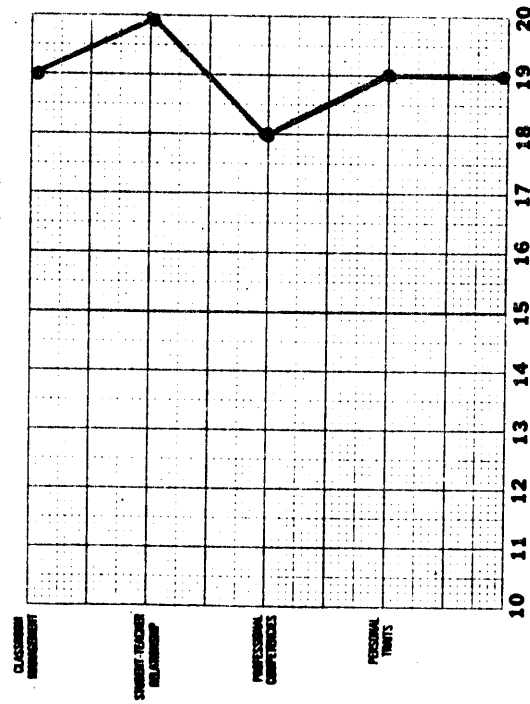
# GRAPHS OF STUDENT TEACHER RATING SCALE SCORES BY DIAGNOSTIC CATEGORY

## SUPERVISOR EVALUATION

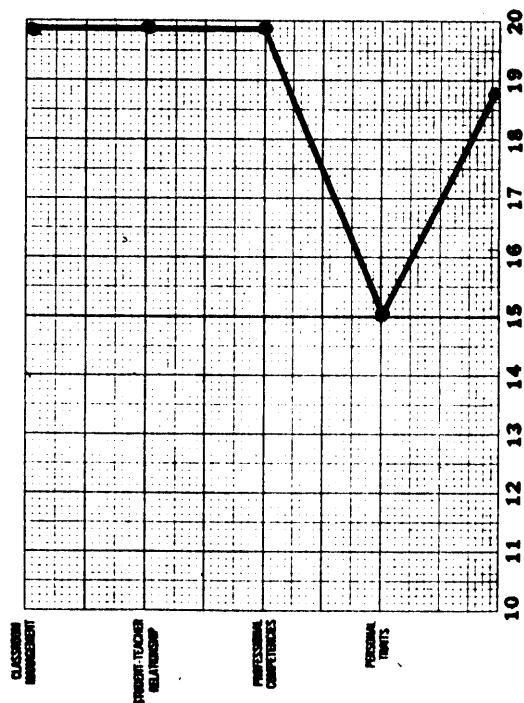
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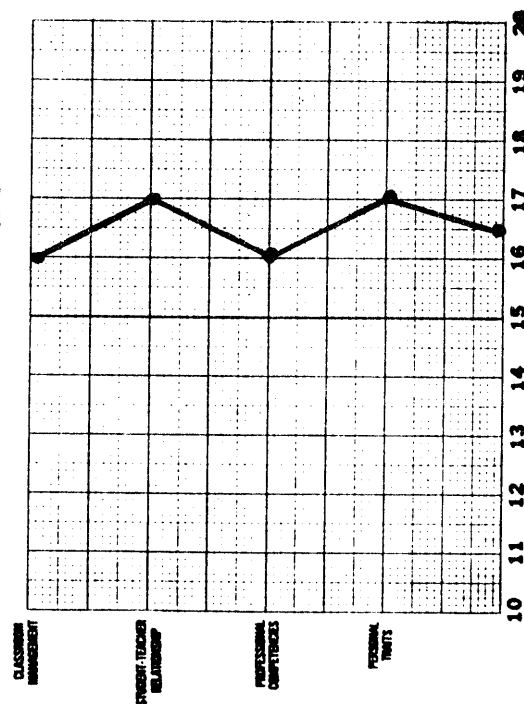
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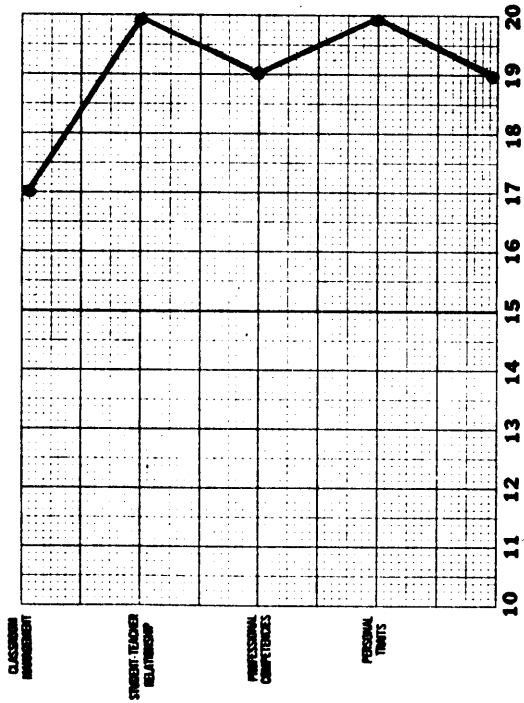
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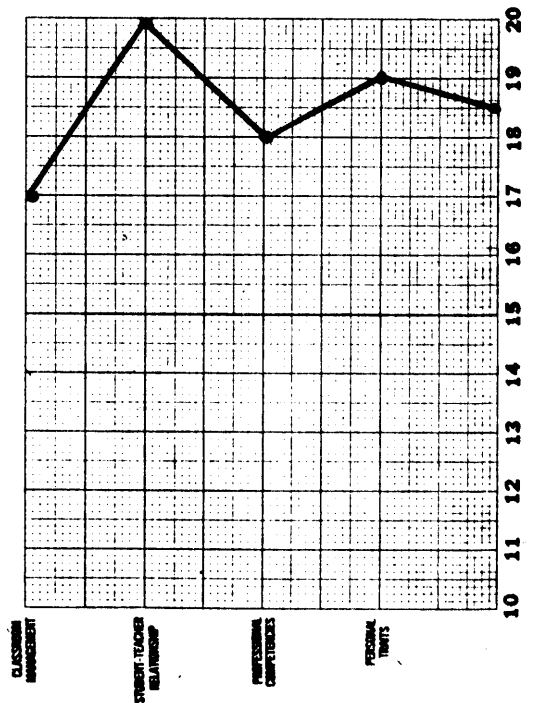
# GRAPHS OF STUDENT TEACHER RATING SCALE SCORES BY DIAGNOSTIC CATEGORY

## SUPERVISOR EVALUATION

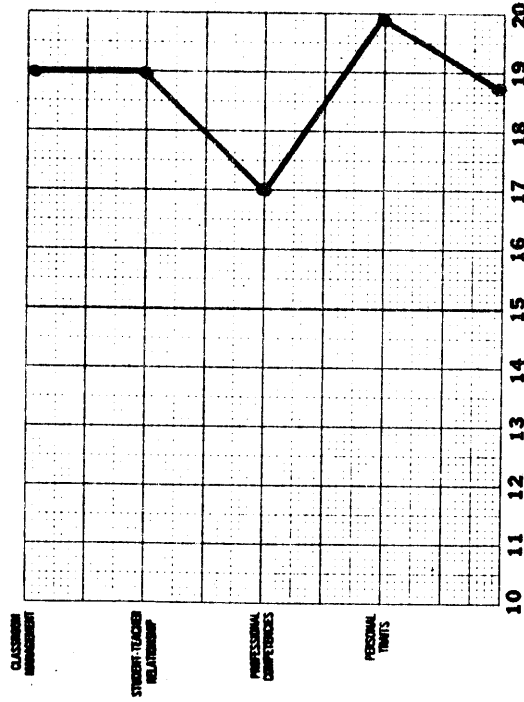
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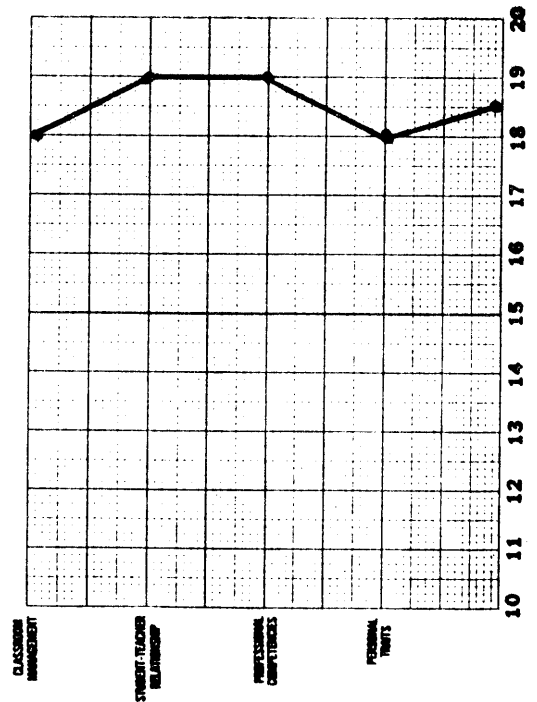
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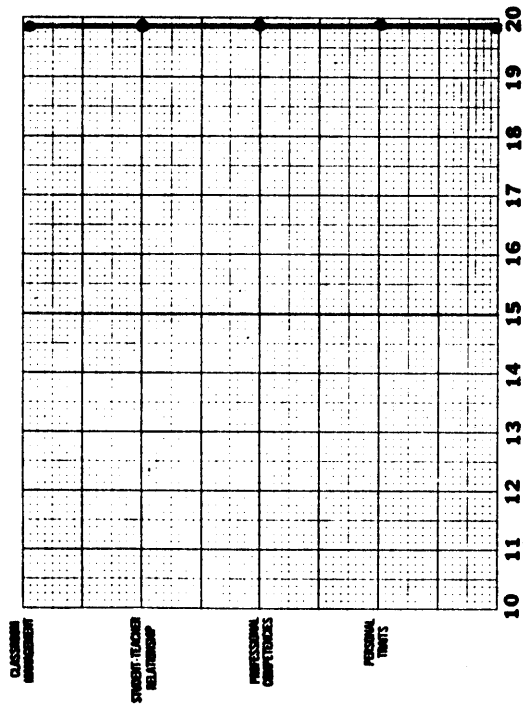
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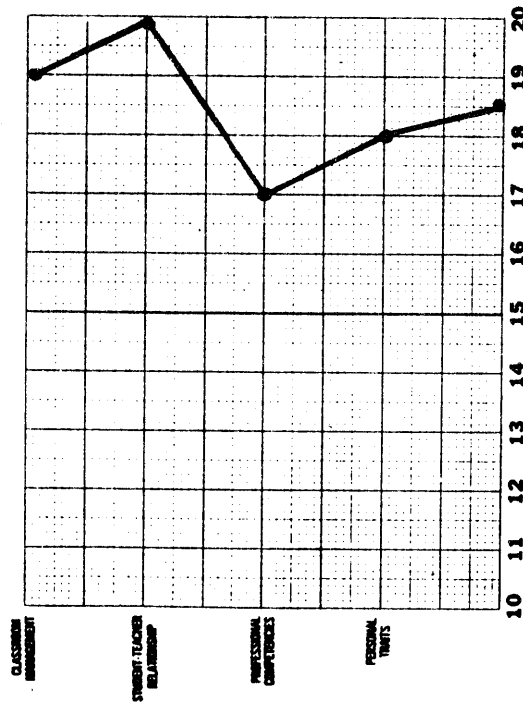
# GRAPHS OF STUDENT TEACHER RATING SCALE SCORES BY DIAGNOSTIC CATEGORY

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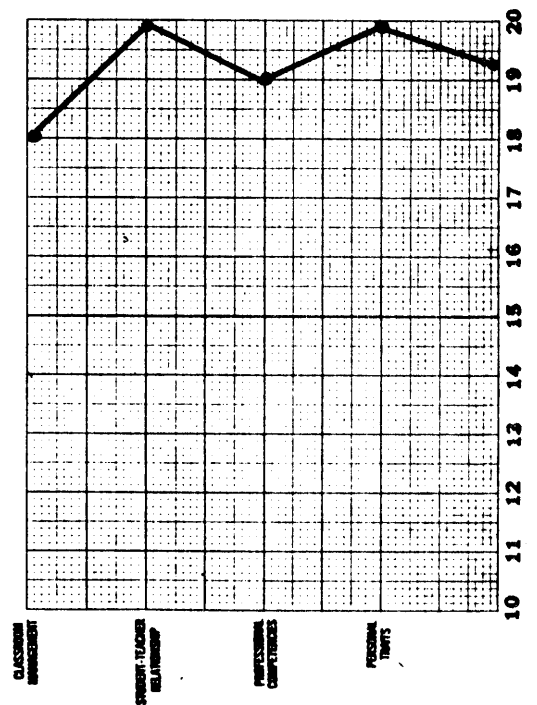
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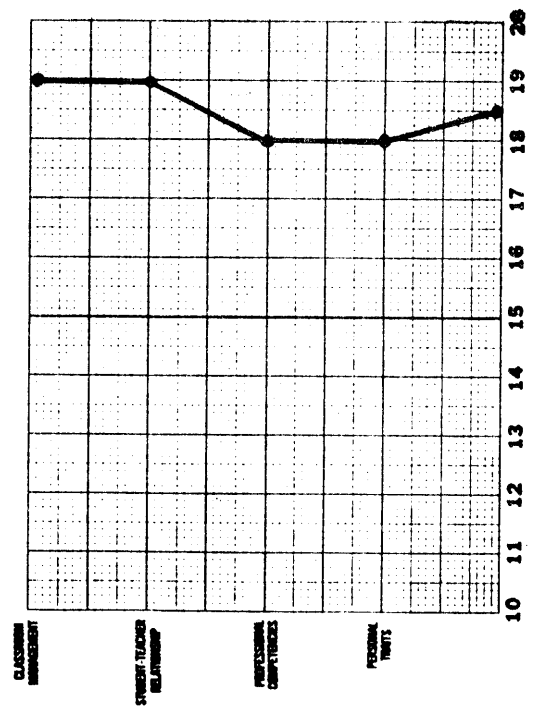
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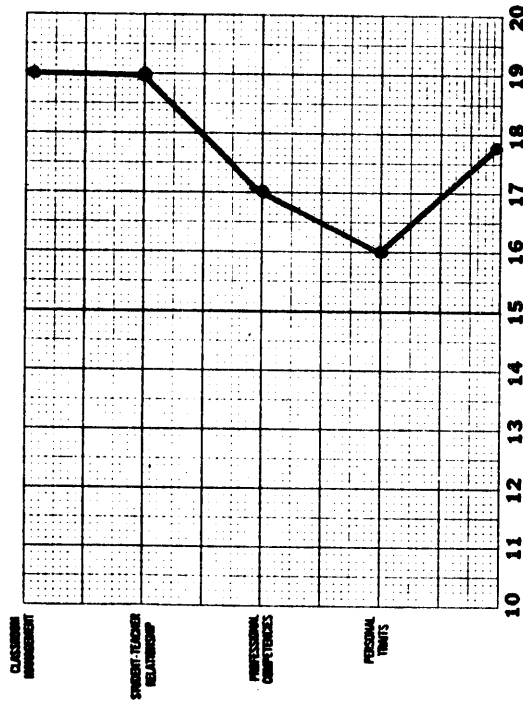
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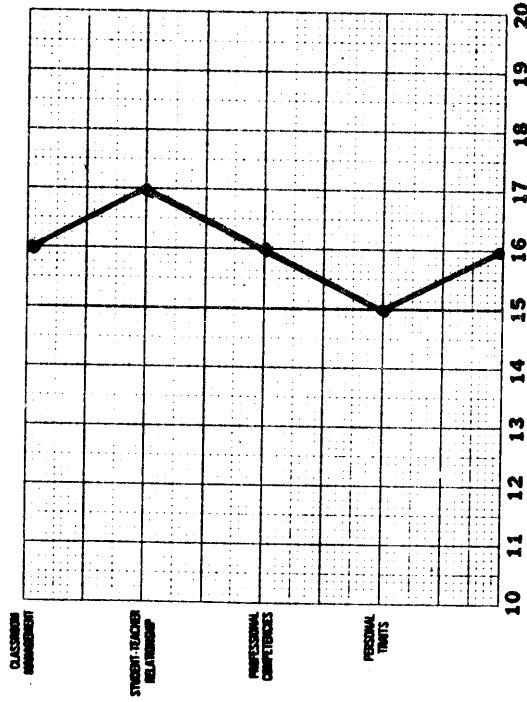
# GRAPHS OF STUDENT TEACHER RATING SCALE SCORES BY DIAGNOSTIC CATEGORY

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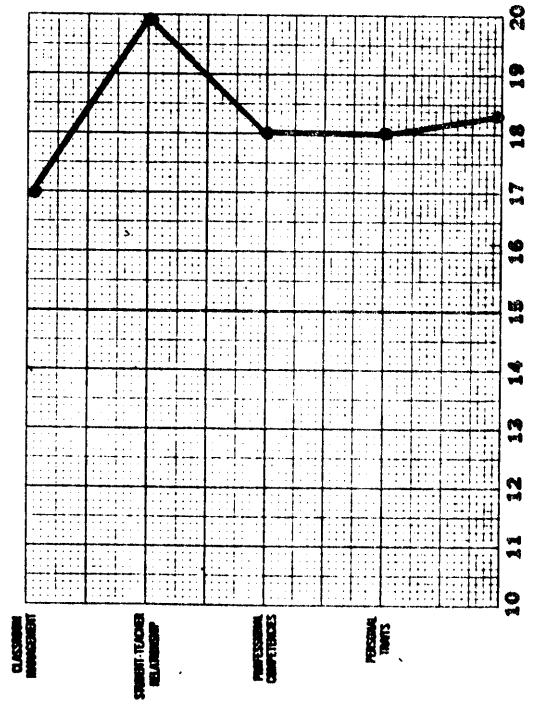
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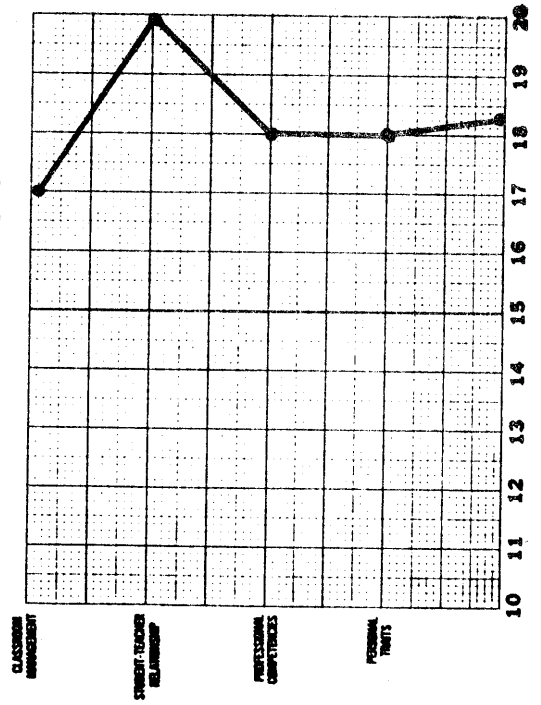
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TEACHER NUMBER 28



TEACHER NUMBER 29

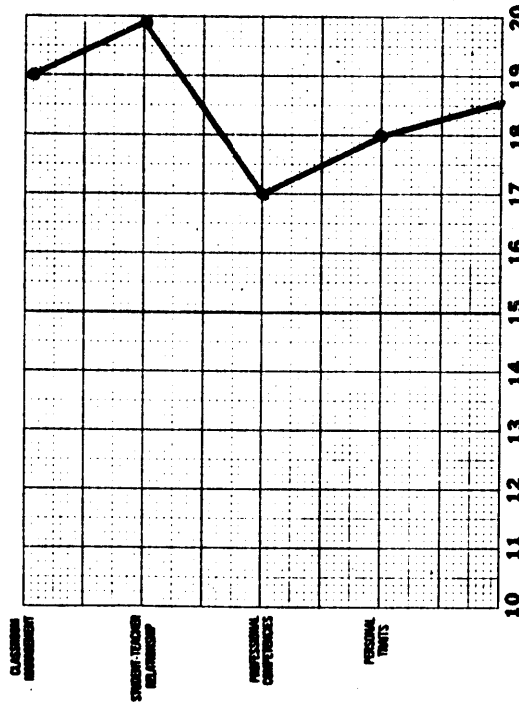
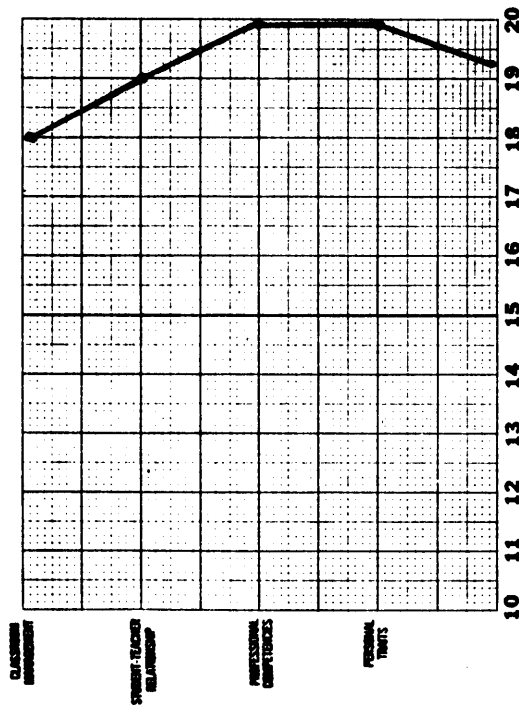


# GRAPHS OF STUDENT TEACHER RATING SCALE SCORES BY DIAGNOSTIC CATEGORY

## SUPERVISOR EVALUATION

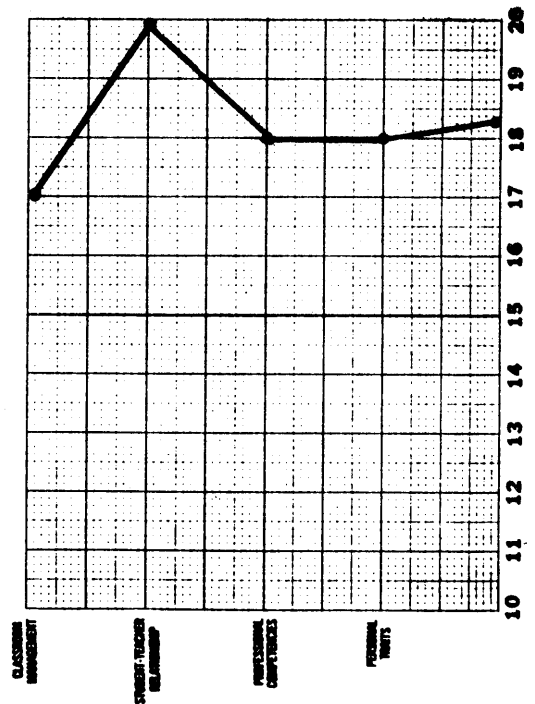
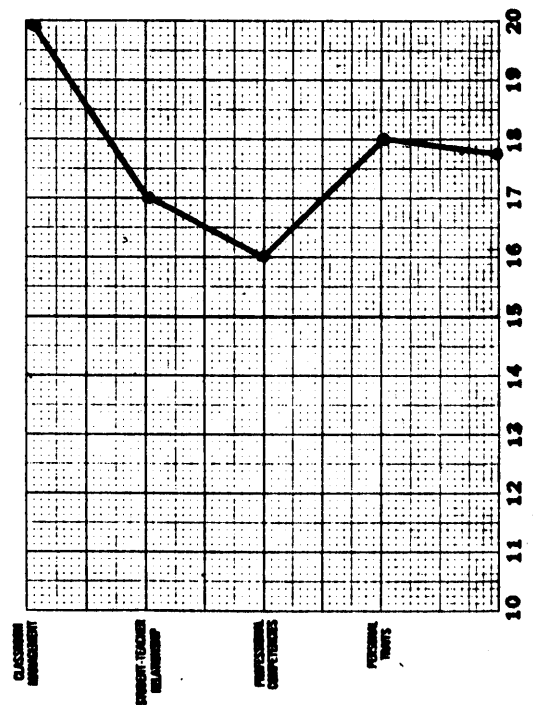
TEACHER NUMBER 30

TEACHER NUMBER 31



TEACHER NUMBER 32

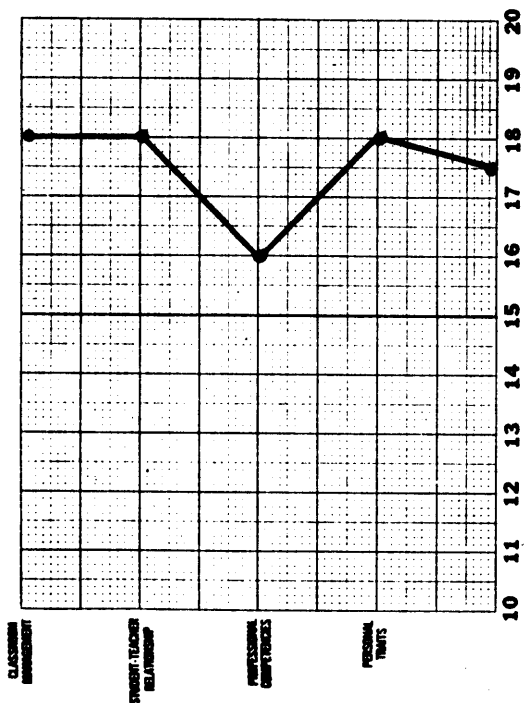
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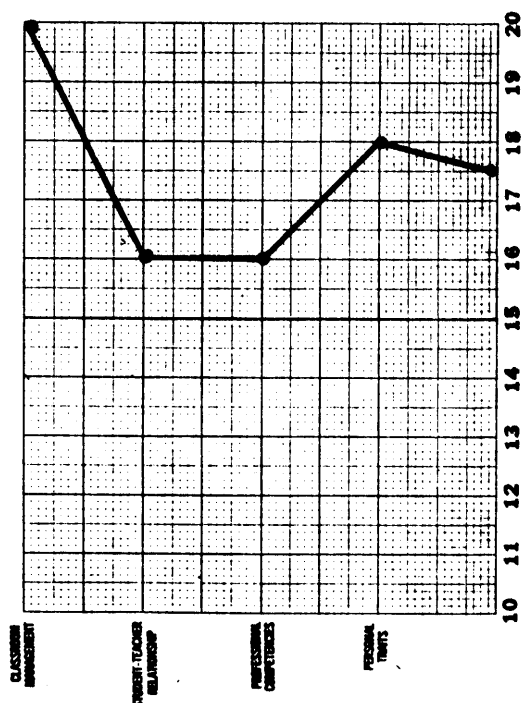
# GRAPHS OF STUDENT TEACHER RATING SCALE SCORES BY DIAGNOSTIC CATEGORY

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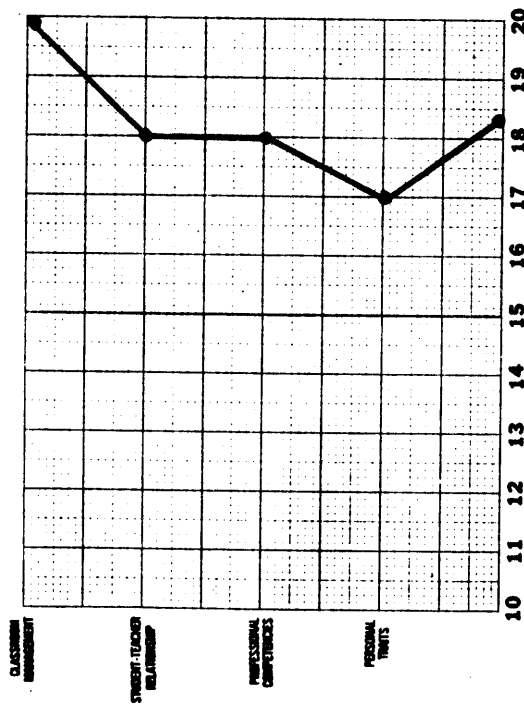
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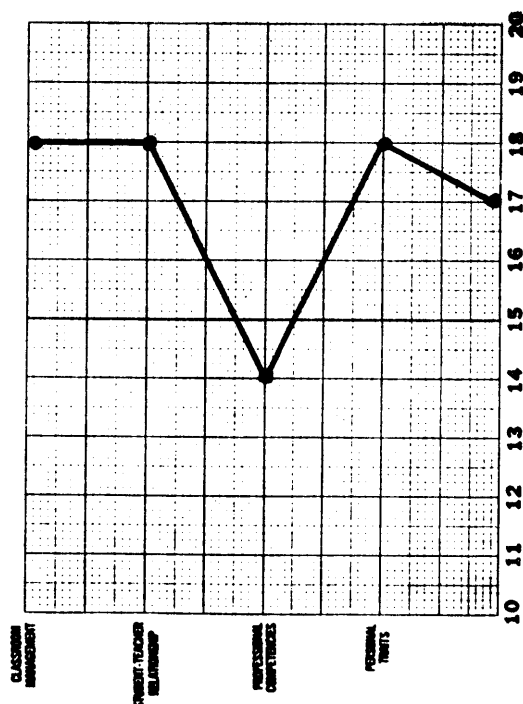
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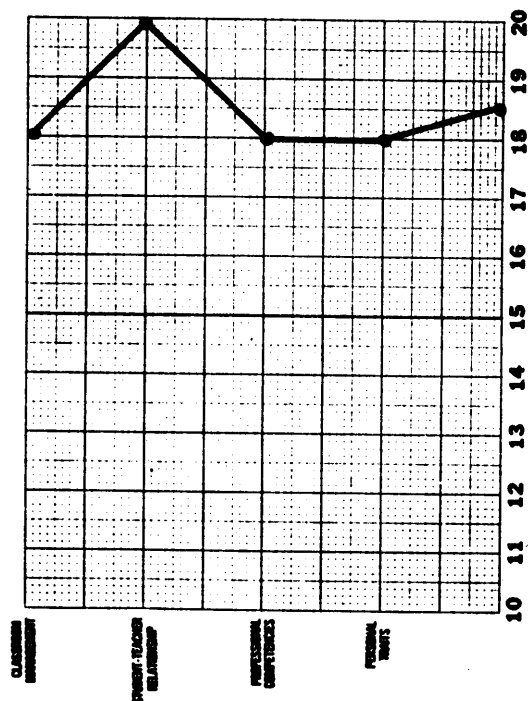
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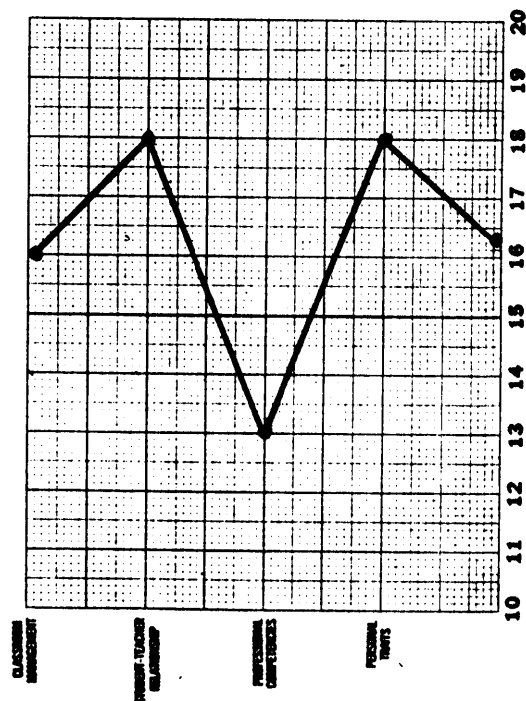
# GRAPHS OF STUDENT TEACHER RATING SCALE SCORES BY DIAGNOSTIC CATEGORY

## SUPERVISOR EVALUATION

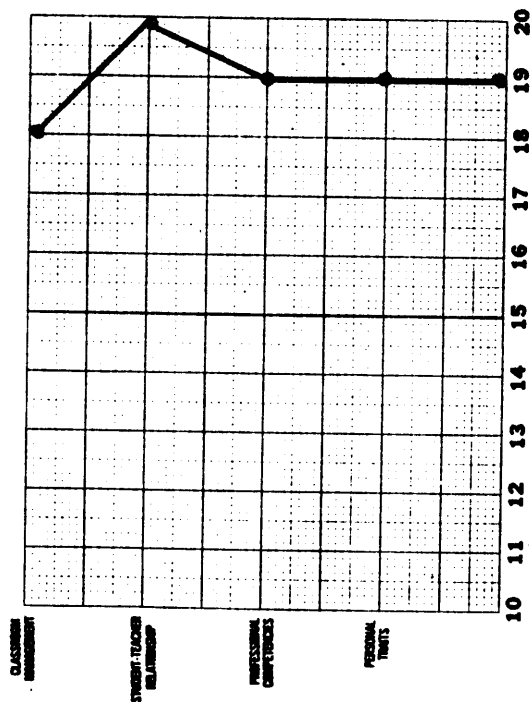
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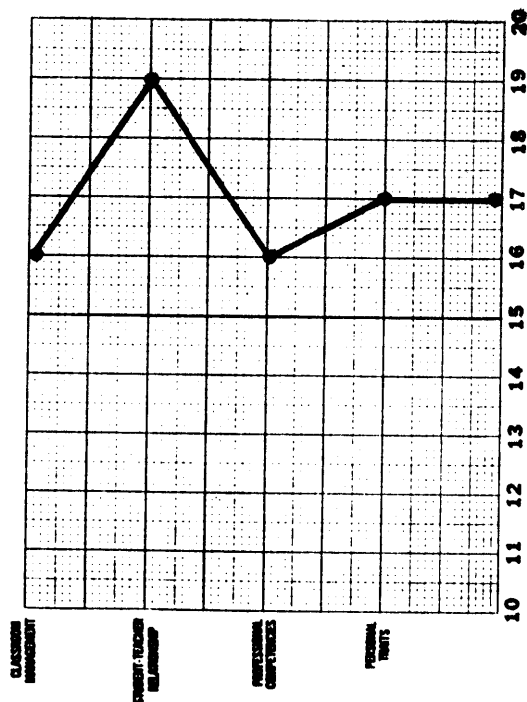
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TEACHER NUMBER 40



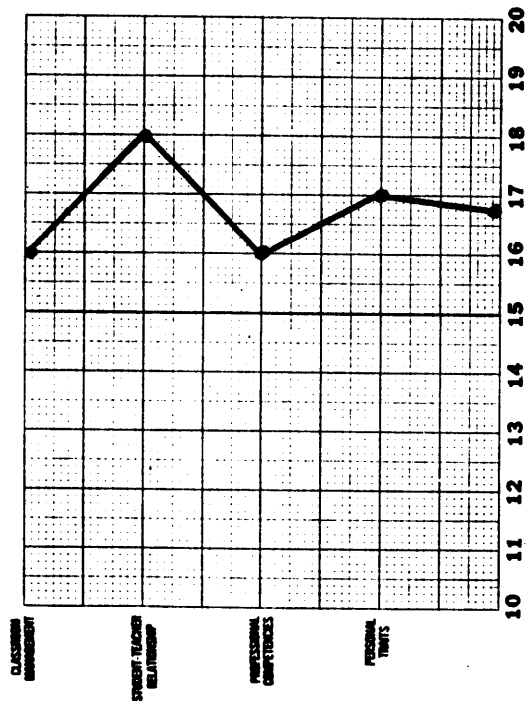
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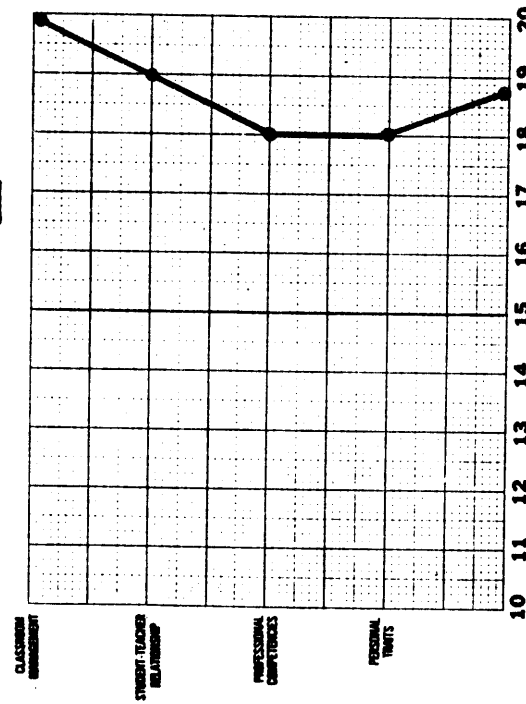
# GRAPHS OF STUDENT TEACHER RATING SCALE SCORES BY DIAGNOSTIC CATEGORY

## SUPERVISOR EVALUATION

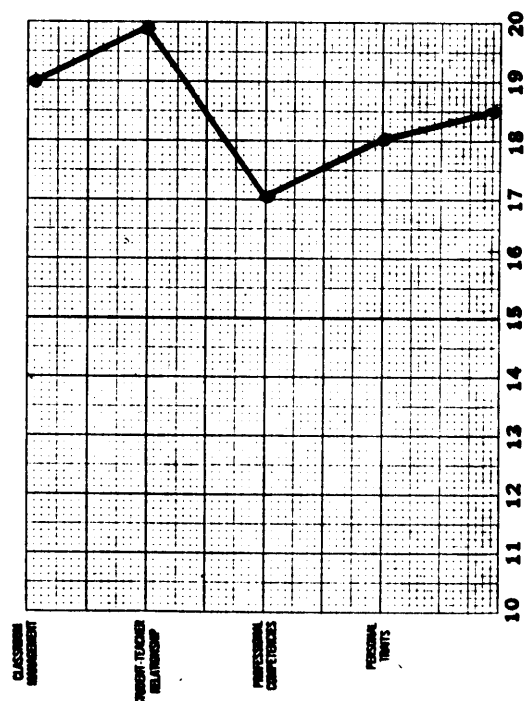
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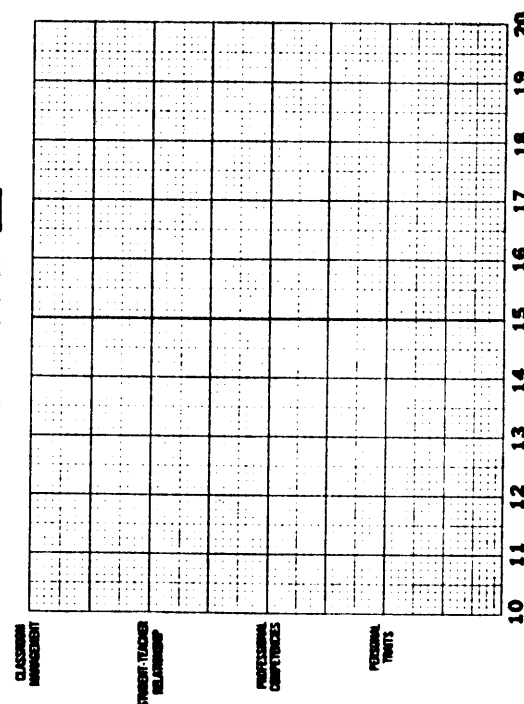
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TEACHER NUMBER 54



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## VITA

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Arts Association Convention Series. 1971.

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ASSESSING AND CHANGING THE STUDENT TEACHER AND  
HIS LEARNING ENVIRONMENT WITH STUDENT RATINGS AND  
PEER GROUP COUNSELING SESSIONS

by

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(ABSTRACT)

The philosophy of teacher evaluation has changed over the past decade. Today more teacher evaluations are leaning toward the accomplishment of specific objectives established collectively by the teacher and evaluator. Beginning teachers find difficulty in identifying areas for improvement since they lack the teaching experience base needed to establish future performance objectives. The student teacher learning situation is similar to the beginning teacher. This study attempted to utilize the results of student ratings as a means for developing student teacher behavioral objectives.

The design process of this study divided the student teacher population into a control and experimental groups. The treatment process administered to the experimental group contained two elements. The first element was a forced choice rating scale called the Student Teacher Diagnostic Questionnaire. This evaluation form completed by the students during the fourth week of student teaching determined the students assessment of the student teacher and his learning environment. The second element consisted of three "Peer Group Counseling Sessions"

and provided the form for discussing the student diagnostic ratings and establishing objectives for positive student teacher change. The diagnostic evaluation instrument provide ratings in four diagnostic categories: (1) personal traits, (2) professional competence, (3) student-teacher relationships and (4) classroom management.

The final assessment of student teacher behavioral change in the experimental group was accomplished through the administration of the Student Teacher Rating Scale to both the control and experimental groups. This two part evaluation instrument administered during the twelfth week also provided the data to determine the overall student teachers characteristics associated with the four diagnostic categories.

The statistical analysis of the data used a Pearson Product Correlational, t tests, and a one way analysis of variance for repeated measures. The findings revealed that no significant difference (at the .05 level or lower) existed between control and experimental groups total students ratings. Diagnostic category differences were significant at the .01 level for both groups on the final rating scale. The Newman-Keuls Process was incorporated to determine these differences. The category differences in the total mean scores on the Student Teacher Rating Scale were fewer for the experimental group than control group. This decrease in category differences was attributed to the student feedback and group counseling process. The students raters ranked the category of personal traits

significantly lower for all student teachers on both evaluation instruments.

Category differences also occurred in the university supervisors ratings. Classroom management was ranked consistently higher than the other three categories. Cooperating teacher results indicated no significant category differences.

There were no significant differences (at the .05 level or lower) found in the student ratings of teachers with high college grades and those with lower college grades. Also, there was no significant differences in middle and senior high student ratings of student teachers.

University supervisors, cooperating teachers, and students all showed a slight positive correlation in rating student teachers. Only the cooperating teachers and students reached a significant level of .01.

The two part Student Teacher Rating Scale revealed no significant difference between the forced choice section and the Likert scale section.