ABSTRACT

A DESCRIPTIVE STUDY OF SELECTED PUPIL DISRUPTIVE BEHAVIORS

By

Howard Shuirman Teitelbaum, Jr.

The subjects who participated in this study were teachers from the Michigan public schools. The unit of selection, however, was the school rather than the individual teacher.

The schools were stratified on two variables: (1) the size of the school district in which it was located; and (2) whether it was elementary, junior high or senior high school.

The items used in this survey were developed through the cooperative efforts of educational psychologists, curriculum specialists and experienced teachers.

The analysis estimated missing data for the respondents and made appropriate adjustments in the final analysis.

The design from which the analysis was performed was a two-way analysis of variance--repeated measures design.

The dissertation identifies the most frequently occurring discipline situations and their associated

degree of seriousness. The frequency scale ranges from hourly to never and the seriousness scale ranges from positive to extremely serious.

The study also shows how each of these behaviors were perceived when teachers were grouped according to selected demographic variables.

The findings indicate teachers perceive the most serious and most frequently occurring disruptive behaviors involve students' relationships to other students, followed by violations of school authority.

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By

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CHAPTER I

INTRODUCTION

Teaching practitioners and education researchers have long had difficulty in effectively communicating with one another. However, some notable efforts have been undertaken to bridge this gap. One such effort began twenty years ago under the influence of Stephen Corey.[1] This effort was functionally labeled "action research" and its basic thrust was to improve teaching behaviors by training teachers to be mini-researchers. It was also designed to help teachers appreciate and learn how to structure objective inquiry. This orientation has received criticism from Cookingham,[2] Corman,[3] and Hodgkinson[4] as it did not necessarily fulfill its two primary missions. If anything, it tended to foster poor research practices. The action research movement lost its impetus because little data was accumulated to show that it actually improved teacher instructional behavior.

Ward[5] hypothesizes that the failure of action research to fulfill its primary missions was essentially due to the lack of planned integration of the following groups of people: practitioners, researchers, and practitioner trainers. Ward further stated that the integration of the

above people can be realized through clinical research studies of instruction. This can be achieved through the

> . . . efforts of highly trained behavioral scientists to research with practitioners--first to develop descriptions of the real world in which their client-contact tasks exist, then to describe the variables the practitioners manipulate and the effects these manipulations produce, and finally, to so precisely define the vocabulary of the descriptions that corollary statements from basic research can be reliably identified and constructively related to applied problems.[6]

In the clinical research model the results of the joint efforts of the practitioners and researchers would be consciously integrated by teacher trainers into teacher education courses. The added integrative emphasis of the teacher trainer in the clinical research model could overcome the serious shortcoming of action research.

At this point a clarification of the term "clinical research" is in order. The use of this term throughout this paper will be in accordance with a stipulated definition. Let us agree that the use of this term will mean the exploration of a diagnosis-treatment-evaluation process in a particular setting. The setting will be the school, the problem explored will be discipline. This is to emphasize the difference between laboratory and clinic. The laboratory connotes a restricted controlling aspect of variables as in a "controlled experiment." The clinic's capacity for dissemination of new procedures and equipment supplements the laboratory's prior explorations and safety verifications.

Recent efforts to bridge the research-to-practice gap have been increased by application of the clinical research approach to all the related educational workers.

The supporters of clinical research usually contend that decision-making is basic to teaching, and therefore emphasis ought to focus upon that process. Past teacher education efforts have hoped to "indirectly" improve a teacher's decision-making as was the case of the action research movement.

The value of clinical research, directly amalgamated into teacher education programs, is that it presently focuses upon the teacher as a decision-maker. The benefit of this orientation as presented by Ward is that:

> . . . if a student can learn to seek and select environmental data and to base his instructional decisions on the important characteristics of the problem situation, he will develop a versatile and useful teaching skill. He will begin to adopt a systematic habit of using observations about what is in planning his teaching moves and evaluating the outcomes of his actions. Thus, he can profit from success and failure. Exciting possibilities are opened up to us once we commit ourselves to a crisp definition of the basic behaviors we want in professional practices.[7]

Henderson[8] has described the phases that Ward[9] identifies as being the essential parts of the clinical research cycle.

Arriving at the commitment level that Ward describes is a task that requires a carefully integrated research program. Clinical research activities explicating instructional behaviors can be furthered in a much more

meaningful and systematic manner when they incorporate Henderson's[10] dimensions of clinical research.

Henderson's[11] conceptualization of the components of clinical research initially identified by Ward (Chart 1) furthers the manner in which clinical research should be developed in actual practice. She recommends that a systematic yet broad development of clinical research programs be undertaken. This is necessary because of the highly integrated nature of each phase of clinical research.

The Problem

Discipline has long been recognized by many educators as the most frequent and serious problem which will likely confront a student teacher during his field experience. Batchelder,[12] Wingo,[13] and Iannaccone,[14] who have written books dealing with the topic of student teaching, indicate that a student teacher will undoubtedly face his most serious problems in this area. The usual remedy for such tribulations is a few statements that explicate rules or guidelines for the student teacher to follow. The student may receive such warnings as, "Be consistent," "Don't threaten pupils unless you can fulfill the threat," "Good planning and classroom organization are the key to discipline in the classroom," "Treat each pupil as an individual," and "Treat the causes and not the symptoms." Yet, despite all the advice from textbooks and other related media, student teachers continue to cite discipline as their greatest problem.

Chart 1.--Clinical research--studies of instruction.

Phase I	Phase II	Phase III	Phase IV
Population Selection	Variable Description and Examination	Model Study	Implication/ Application
A. Subjective Criteria 1. Teachers 2. Administrators 3. Supervisors 4. Pupils 5. Parents B. Objective Criteria 1. Pupil achievement of objectives 2. Pupil achievement of subsequent schooling 3. Pupil achievement and success in life (Point at which values come into play)	A. School and Community Contexts 1. Socio-economic make-up 2. Physical plant, equipment 3. Organization, rules 4. Leadership biases B. Classroom Situations 1. Substantive dimensions a. Content of study b. Strategies for inquiry 2. Behavioral dimensions a. Learner characteristics b. Group climate c. Teacher influence 3. Environmental dimensions a. Organization b. Physical conditions c. Technologies	A. Model Building Activities 1. Analytic tasks 2. Language transformations B. Model Comparison Activities 1. With diverse empirical characterization models 2. With basic research models 3. With philosophical and pedagogical models	A. Teacher Education 1. Behaviors appropriate to general and special teaching situations are explicated. 2. Materials and strategies for preservice programs are developed. B. Practice 1. Confirmation and/or changes for practitioner behaviors are explicated. 2. Materials and strategies for inservice programs are developed. C. Research 1. Clues for additional and new basic research are explicated.

Research studies related to the student teaching experience support what many authors have intuitively identified as being the most serious problem in student teaching--discipline. Sharp,[15] Deiulio,[16] Bouchard,[17] and Travers[18] through studies which ascertain the main problems which confront student teachers during their field experience have arrived at similar conclusions--that discipline continues to be the most urgent and pressing problem during student teaching. Thus, the general literature and research are mutually supportive; however, it still remains that student teachers continue to be plagued by the anxiety connected with not being able to control a classroom of pupils.

The problem, more specifically stated, is that many educators recognize that student teachers have major problems with discipline. Few educators get beyond the level of globally recognizing the problem to that of identifying the specific kinds of disciplinary problems which confront a student teacher. Moreover, the problem of pupil disruptive behaviors is further compounded by the almost total lack of data about the student teacher and variables which include class size, academic subject matter taught, grade levels, socio-economic level of the school, and school organization schemes.

In a recent study (1969) by Frances Fuller, it is pointed out that no study supports the notion that beginning teachers are basically concerned with "instructional

design, methods of presenting subject matter, assessment of pupil learning, or with tailoring content to individual pupils, the areas often presented before student teaching in education courses."[19] Instead, the findings indicate much agreement: they conclude that the student teacher's basic anxiety is related to "fear of inability to gain control of classes and fear of inability to gain pupils' emotional support."[20]

Arriving at the stage where teacher education will directly attack the problem that student teachers face with pupil disruptive behaviors will not be easily accomplished. Because of the complexity of pupil disruptive behaviors it becomes extremely important that research be conceived and carried out in a thorough and systematic manner that fits into a broad developmental research program.

The School of Teacher Education in cooperation with the Learning Systems Institute at Michigan State University is attempting to develop training strategies which will enable student teachers to deal with discipline problems. In order to be more effectual to this end, the School of Education needs to know what the discipline situations are.

The major purpose of this dissertation will be to report accurately the findings of a survey conducted on a representative sample of experienced teachers in the state of Michigan. The survey asked the teachers to respond to selected discipline problems on two dimensions: frequency

of occurrence and seriousness of occurrence. More formally stated, the purposes of the dissertation are:

A. To identify empirically which selected discipline problems experienced teachers perceive as occurring most frequently in their classrooms and, of these, what is the seriousness of these behaviors.

B. To examine along specified demographic characteristics the responses made in "A." The demographic characteristics are:

1. sex of the teacher
2. socio-economic status of the school as perceived by the teacher
3. educational level of the teacher
4. age of the teacher
5. years of teaching experience
6. whether or not the teacher teaches the same group all day
7. class size
8. team teacher
9. special education
10. teacher classification as to the area and subject matter taught.

The major importance of this study is that it will contribute to teacher education by providing data about the frequency and seriousness of pupil disruptive behaviors as perceived by experienced teachers. This study

will provide the data necessary to move to Phase III of Henderson's model of Clinical Research--Studies of Instruction.[21] This particular phase emphasizes the building of instructional models which will later have their application in teacher education, classroom practice, and further research efforts.

Let it be carefully noted that no attempt has been made to formally define the word discipline. No appeal has been made to employ an ordinary use of the term or arrive at a normative definition. Rather, the list of pupil disruptive behaviors which are in Appendix A is used to illustrate instances of discipline problems and in this way show what is meant by the term "discipline."

The limitations of this dissertation should be noted carefully. First, the list of behavior problems appearing on the questionnaire is not to be considered jointly exhaustive or necessarily mutually exclusive. Secondly, the ranking of the categories within each demographic characteristic apply, at this point in time, only to the sample of teachers who participated in the study. Thirdly, the disruptive behaviors are a fixed factor in the study, and generalization beyond these behaviors is not justified.

Furthermore, this dissertation is not inferential in nature, but is descriptive. It is hypotheses-generating rather than hypotheses-testing in its intent.[22] Consequently, no formal hypotheses are stated.

FOOTNOTES--CHAPTER I

[1]Stephen Corey, Action Research to Improve School Practices (New York: Teachers College, Columbia University, 1953).

[2]Frank Cookingham, "Critical Research: A Two-Way Street Between Research and Practice," Papers of the Institute No. 52, Learning Systems Institute, Michigan State University, June, 1967.

[3]Bernard R. Corman, "Action Research: A Teaching or a Research Method?" Review of Education Research, XXVII (1957), 544-547.

[4]Harold L. Hodgkinson, "Advantages and Limitations of Informal Classroom Investigations," American Business Education Yearbook (1961), 17-27.

[5]Ted W. Ward, "Professional Integration and Clinical Research," Learning Systems Institute, Michigan State University, East Lansing, Michigan, 1966.

[6]Ibid.

[7]Ibid.

[8]Judith Henderson, "An Investigation of Practitioner Evaluation and Agreement Regarding Effective Language Arts Instruction" (unpublished Ph.D. dissertation, Michigan State University, 1968), p. 16.

[9]Ward, op. cit.

[10]Henderson, op. cit., p. 21.

[11]Ibid., pp. 15-23.

[12]Howard T. Batchelder, Maurice McGlasson, and Raleigh Schorling, Student Teaching in Secondary Schools (New York: McGraw Hill Book Co., 1956).

[13]Max G. Wingo and Raleigh Schorling, Elementary School Student Teaching (New York: McGraw Hill Book Co., 1960).

[14]Lawrence Iannaccone and H. Warren Button, Functions of Student Teaching (Washington, D.C.: U. S. Office of Health, Education and Welfare Research Project 1026, 1964).

[15]Jack Sharp, Off Campus Student Teaching, Thirtieth Yearbook of the Association for Student Teaching (Iowa: Association for Student Teaching, 1951), p. 118.

[16]Anthony Deiulio, "Problems of Student Teachers," American Teacher, XLVI (December, 1961), 9-10.

[17]John B. Bouchard and Ronald E. Hull, "A Pilot Study of Problems and Practices in the Instruction of Beginning Teachers" (paper presented at 1969 Meeting of Educational Research Association of New York State, Concord Hotel, Kiamesha Lake, New York, November 6, 1969).

[18]Robert Travers, et al., "The Anxieties of a Group of Student Teachers," Educational Administration and Supervision (October, 1952), 368-375.

[19]Frances Fuller, "Concerns of Teachers: A Developmental Conceptualization," American Education Research Journal, Vol. VI, No. 2 (March, 1969), 210.

[20]Ibid., p. 215.

[21]Henderson, op. cit., p. 16.

[22]See Chapter V, page 73.

CHAPTER II

REVIEW OF LITERATURE

Introduction

Gnagey[1] strongly supports the point that there has been little scientific research completed about the subject of discipline since the 1930's and early 1940's. Scientific research which relates specifically to the classroom teacher and pupil disruptive behavior is skimpy as is scientific research relating specifically to the student teacher and pupil disruptive behaviors. Because of this problem it was decided to incorporate four dimensions in the development of this chapter: (1) approaches used by researchers in analyzing the problem of pupil disruptive behaviors; (2) an examination of the research done by Wickman[2] in 1927, a survey study which has particular relevance to this study; (3) an examination of findings of survey studies which have used Wickman as a basis; and finally, (4) a summary of findings regarding pupil disruptive behaviors.

Basic Approaches for Examining Pupil Disruptive Behaviors

Approaches which have been used by researchers in attacking the problem of pupil disruptive behaviors fall

into one of the following modes: the case study, the observation, the experiment, and the survey.

The Case Study Method

Berelson and Steiner state,

> The case study intensively examines many characteristics of one "unit" (person, work group, company, community, culture), usually over a long period of time. The goal of such investigation is to learn "all" about the area of interest for the one case involved.[3]

The work of Fritz Redl[4] best typifies this approach. Redl's contribution to the area of pupil disruptive behaviors is a result of his experiences with severe cases of anti-social children. Information gathered from case histories has provided Redl with a vast abundance of knowledge from which he was able to suggest practical techniques for handling anti-social children. Many of these techniques have been applied to behavior problems of pupils in public school classrooms.

The chief criticism of Redl's work as it applies to regular classes of pupils is that his views have been drawn from an extremely narrow and biased sample of pupils--those of severely anti-social children.

A practical application of the case study approach to pupil disruptive behaviors is the use of "critical incidents." An example of this approach is Corsini and Howard's belief that ". . . teachers can learn general principles of classroom leadership through the case approach and through discussions of cases by people who have special knowledge

and special interest in good teaching."[5] While Corsini and Howard's case approach has much to commend it, it has limitations. They have made the assumption that critical incidents give teachers the greatest difficulty. However, there is the possibility that a variety of minor pupil disruptive behavior incidents may be more bothersome to a teacher than one critical incident. Another shortcoming of the case approach is the limited and perhaps biased sampling of cases of pupil disruptive behaviors selected by Corsini and Howard to act as a representative sample of all critical incidents.

The Observation Method

Medley and Mitzel refer to observational technique as ". . . procedures which use systematic observations of classroom behavior to obtain reliable and valid measurements of differences in the typical behaviors which occur in different classrooms, or in different situations in the same classroom."[6] Kounin and Gump[7] in a 1958 study about the effect of teacher control techniques used a data gathering system and observers. It was in this study that the "ripple effect" (effect of a disciplinary action upon the children who are on-lookers) was investigated. Preliminary findings indicated that a teacher's control technique influenced the behavior of both the deviant and other pupils who were audience to the technique. Kounin and Gump also noticed that pupils who were strongly affiliated with the

deviant and/or the disciplinary action taken by the teacher were more affected by the sequence of action than those pupils who had little or no relationship with the deviant or the control technique.

In one observation study, using video tapes, Kounin, Friesen, and Norton[8] concentrated upon the disruptive behaviors of emotionally disturbed children as they participated in "regular" classrooms. Their research concern emphasized two areas: work involvement and deviancy rate. Because of the importance of this study the major findings are reported:

1. The highest degree of school-appropriate behavior for both emotionally disturbed pupils and non-emotionally disturbed pupils occurred in sub-group recitation periods (e.g., reading groups) and the lowest degree of school-appropriate behavior occurred in seatwork situations.
2. Emotionally disturbed children show less school-appropriate behavior than non-emotionally disturbed children.
3. Teachers who were successful in handling the behavior of non-emotionally disturbed children are relatively successful with emotionally disturbed children.
4. Teacher "with-it-ness" techniques of handling group movement and programing for variety

change in learning activities correlated highly with the behavior of children.

5. Programing for variety change is a significant dimension of classroom management.

The implications of this study, drawn by Kounin, are also of importance and include the following:

1. That analysis of teacher behavior according to personality factors may not be as valuable as that of analyzing concrete techniques of programing activities and initiating and maintaining movement within a program.
2. That a higher priority ought to be placed on training for group management rather than studying individual children. This is usually the emphasis of many educational psychology classes.

The Experimental Method

Berelson and Steiner define experiment as ". . . any investigation that includes: systematic manipulation and/or control of some variable by the investigator."[9] The experiment in pupil disruptive behaviors is found in William Gnagey's[10] study of Kounin, Friesen and Norton's[11] preliminary findings with regard to the "ripple effect." Specifically, Gnagey was interested in the social power of a deviant and its effect upon a class when he was punished.

Four classes of fifth graders were measured before and after a ten-minute showing of a film. A male classmate

was selected and trained in secret to misbehave and have an altercation with the teacher. He, in effect, became the target for a control technique by the teacher. He was directed to react in a deviant but submissive manner. The main finding of this study supported Kounin and Gump's initial observation: that "the overt reaction of the male student does have some measurable effects on the perceptual behavior and learning performances of his classmates and that these effects are influenced by the social power of the deviant."[12]

The Survey: Questionnaire

The survey is identified by Kerlinger[13] as being one of the most important means and/or tools for assessing characteristics of whole populations of people. The survey method identified by Hilway[14] usually includes one of or a combination of the following: interviews, questionnaires, and tests. The emphasis of this section is the questionnaire, a research method very popular with educators. Wickman's questionnaire study regarding pupil disruptive behavior, because of its relevance to this study, is presented in greater breadth.

The Wickman Study

The Wickman study,[16] using a questionnaire approach, examined the problem of pupil disruptive behaviors. In the study (1927), 511 elementary teachers were asked to respond to fifty specific acts of pupil disruptive

behavior. To obtain the information regarding the above, Wickman sought data about:

1. The teacher's awareness of the various kinds of behavior problems. (This is similar to the "frequency" dimension of this study.)
2. The distinguishing characteristics which identify a problem child to a teacher. This was obtained by analyzing behavior reports of children identified by teachers as behavior cases.
3. The personal feelings of teachers to specific forms of behavior problems. This was obtained by asking teachers to judge the seriousness of specific behavior problems. (This is similar to the "seriousness" dimension of this study.)

The basic findings of Wickman's[17] study related to the frequency of pupil disruptive behaviors were:

1. Child behavior problems which were responded to the most frequently were those that relate to the school situation (e.g., infraction of classroom rules and routine, failing to submit school work promptly).
2. That personal problems of the child seem to be subordinated to the problems which were more recognizable.
3. Behavior problems of boys characterized by their aggressiveness were recognized more frequently

than problem behaviors of girls which were identified as being more sublimated.

Chart 2 clarifies Wickman's study.[18] In summary, Wickman's findings suggest:

> . . . that teachers' reactions to the behavior problems of children are determined in direct relation to the immediate effect of behavior upon the teachers themselves. Those problems which transgress the teachers' moral sensitivities and authority or which frustrate their immediate teaching purposes are regarded as relatively more serious than problems which affect for the most part only the welfare of the individual child.[19]

The Wickman study has been cited as classic by Stouffer,[20] Schrupp and Gjerde,[21] and Hunter.[22] However, Goodwin Watson[23] noted limitations in Wickman's type of research. One of the most serious cited by Watson is item ambiguity (e.g., "stubbornness"--sometimes stubbornness is a form of independence). The second criticism is directed at a phase of the Wickman study which compared the teacher attitudes to mental hygienists. In order to accomplish this, each group was asked a different question. Watson states:

> The teachers were asked what offenses cause serious upset in the school situation. Quite rightly, they noted sex offenses, which would bring a whole community up in arms; stealing, which is likewise socially dangerous; truancy, which defeats every objective of school work; and give larger weight to other disturbances in the organized life of the group. The mental-hygienist, free from any obligation to think about class and community morale, was asked only to pick the symptoms that point toward probable mental disorders in adult life . . . After we made allowances for the unreliability of the answers within each group, and

Chart 2.--Seriousness of pupil disruptive behaviors.

More Serious Than	More Serious Than	More Serious Than	
Stealing			
Untruthfulness	Disorderliness in classroom	Domineering	Shyness
Cheating	Inattentiveness	Attracting attention	Unsocialness
Sex Problems	Lack of interest in work	Sulleness	Fearfulness
Disobedience	Carelessness	Interrupting	Suspiciousness
Impertinence	Laziness	Meddlesomeness	Imaginative lying
Defiance	Unreliableness		Dreaminess
Temper outburst			
Imprudence			
Rudeness			
Truancy			

By interpretive classification of the groups of problems, the above formulation becomes:

More Serious Then	More Serious Than	More Serious Than	
Immoralities	Violations of: orderliness in classroom application to school work	Extravagant, aggressive personality and behavior traits	Withdrawing, recessive personality and behavior traits
Dishonesties			
Transgressions against authority			

> take account of the difference in form of the questions set, there remains very little disagreement to be accounted for.[24]

Regardless of the cited weaknesses in the Wickman study, it is still regarded as an excellent questionnaire study.

From the research undertaken since Wickman's study, similar studies have attempted to find whether there has been a change in teacher attitudes toward the frequency and seriousness of pupil disruptive behaviors.

George Stouffer[25] in 1953 replicated the Wickman study by testing 481 male and female elementary school teachers. His major findings indicated that (1) problems related to sex, honesty, truancy, and classroom order and application to school tasks were rated as most serious of the fifty Wickman pupil disruptive behaviors. This was consistent with the original Wickman study; (2) problems related to withdrawal behavior, recessive personality traits (depression, unhappiness, unsociability and withdrawing) were progressively becoming more important to teachers.

Schrupp and Gjerde[26] in a similar study found that elementary and secondary teachers tested in 1952 were more aware of and concerned over recessive pupil disruptive behaviors. Their major findings were in agreement with Stouffer. They found elementary and secondary teachers as a group were still mostly concerned with pupil disruptive behaviors that were anti-orderliness and morality;

they were less concerned with traits that were related to withdrawal behaviors.

Hunter (1955)[27] revealed that the ten problems rated most serious in his study were also rated as most serious by Wickman teachers. Hunter concluded that teachers still believed that frequent and serious pupil disruptive behaviors were characterized by annoying, aggressive, and irresponsible behavioral patterns. His findings also showed that teachers were moving closer to fuller awareness of withdrawing or recessive behaviors as being of greater or of equal importance as aggressive pupil behaviors. Hunter's remarks summarize the general tendencies of teachers' perceiving pupil behaviors identified as recessive (not aggressive):

> . . . it appears that today's teachers are definitely showing more concern about non-aggressive traits and behavior suggesting mental health problems than did the teachers in 1926.[28]

Stouffer[29] identified the serious pupil disruptive behaviors of masturbation, smoking, and profanity as having taken a significant drop from their original ranking in the Wickman study.

Studies by Schrupp and Gjerde,[30] and Hunter[31] also provide support for this observation. Table 1 below shows the decrease in perceived seriousness of masturbation, smoking, and profanity.

TABLE 1.--Perceived seriousness of selected behaviors.

Year	Behavior	Rank
	Masturbation	
1927	Wickman	3
1952	Schrupp and Gjerde	23
1953	Stouffer	26
1955	Hunter	28
	Smoking	
1927	Wickman	18
1952	Schrupp and Gjerde	41
1953	Stouffer	37
1955	Hunter	49
	Profanity	
1927	Wickman	15
1952	Schrupp and Gjerde	40
1953	Stouffer	32.5
1955	Hunter	29

Wickman's classification system of pupil disruptive behaviors places masturbation, smoking, and profanity in the area of "Violations of General Standards of Morality and Integrity." The change of these behaviors to a lesser degree of seriousness is most difficult to affix to any

one reason; however, greater educational emphasis and understanding about the nature of these problems may have contributed to their decrease in importance to a teacher.

In summary, the general findings of studies based upon the Wickman study in 1927 have been consistently supportive of the following statements: Pupil disruptive behaviors perceived as most frequent and most serious to teachers are:

1. . . . those relating to school requirements, infractions of classroom rules and routine and failure to meet school requirements. The personality problems of the children are subordinated to problems of classroom management.[32]

2. . . . that behavior which offends the teacher's moral standards and challenges their authority and which interferes with classroom routine is regarded as relatively more serious than personality problems which affect the general welfare of the child, and that aggressive behavior is considered more serious than regressive behavior.[33]

Another significant point is that teachers are becoming more cognizant of the frequency and seriousness of non-aggressive pupil disruptive behavior.

Specific Areas and Findings

The reviewed studies which relate to pupil disruptive behaviors recognize the following areas as areas which may have relationship to the frequency and seriousness of pupil disruptive behaviors. The identified areas are: degree and teaching experience of the teacher, sex of the teacher, sex of the pupil, race, low-achieving pupils, and grade levels.

Degree of Teacher and Experience

One study, Sparks,[34] addresses the point of teaching experience, degree held, and its relationship to pupil disruptive behavior. Sparks' main finding was that amounts of experience had little or no effect upon the attitudes of teachers toward pupil behavior problems; however, the amount of education did affect their ratings. Teachers with education beyond the bachelor's degree tended to perceive pupil disruptive behaviors as being highly related to non-aggressive, withdrawing behaviors. Teachers of lesser education tended to look at pupil disruptive behaviors as annoying, aggressive and generally irresponsible.

Race

James E. Greene and Frances Gatesky[35] tested the hypothesis that black and white high school teachers and pupils would not differ significantly in their perceptions about aspects of school discipline and morale. One of the major findings was that teacher-pupil differences occurred with much greater frequency among whites than among blacks. The determination of specific types of pupil disruptive behaviors showed that black teachers reported greater frequency of the following behaviors: working unsatisfactorily, talking, cutting class, chewing gum and tardiness. White teachers' primary identification of pupil disruptive behaviors were: carelessness, disobedience, impertinence and over-activity. It should be

noted that both white and black teachers in this study did not consider pupil withdrawal or recessive behaviors as important. Greene and Gatesky's study, then, is supportive of Wickman, Stouffer, Schrupp and Gjerde, and Hunter's premise that aggressive pupil disruptive behaviors occur more frequently and are perceived as being more important than recessive, non-aggressive pupil behaviors.

One major limitation of using Greene and Gatesky's study for this purpose is the small sample of pupil disruptive behaviors and vague pupil disruptive behavior categories. Perhaps racial and ethnic factors should be given further consideration as it may provide another area of information that at present is most limited.

Lower Ranges of Intelligence

Research studies to date have indirectly pursued low I.Q. pupils (70 and below) and pupil disruptive behaviors. Those that have are, indeed, few in number. Two studies, Julius Yourman[36] and John Levy[37] used Wickman's behaviors as the basis for their studies. Yourman's conclusion was: "seventy per cent of the problem children were retarded as against twenty-four per cent of the non-problem children."[38]

Yourman summarizes his findings with a rather sweeping and negativistic list of behaviors identifiable with problem children. He states that problem children

were identified as: ". . . less intelligent, inattentive, indifferent, lazy, over-active, and over-talkative, self-assertive, rude, defiant, dishonest, impatient, excitable, negativistic, and moody."[39]

John Levy[40] in another study specifically directed at intelligence and pupil disruptive behaviors found that a marked tendency existed for children's behavior problems to shift with increased intelligence. Conduct problems identified as aggressive forms of anti-social behaviors were characteristic of the lower ranges of I.Q. (75 and below). Levy also points out that personality problems of withdrawing and evasive misbehaviors were characteristic of higher ranges of I.Q. pupils.

Grade Levels

A recent study (1967) by Eaton et al.,[41] examined grade levels and occurrences of pupil disruptive behaviors. The basic concerns of the study were: types of problem behavior from grade level to grade level, types of problem behavior that occur most frequently among boys and girls. From Eaton's study it was found that pupil disruptive behaviors in school increased from grades one to six and ten to twelve. Another revealing, although not too surprising finding was that problem behavior in out-of-school situations increased the greatest between grades seven and nine and ten to twelve. In

reviewing the entire study by grades, 1-6, 7-9, and 10-12, the following major behaviors were descriptive of each general grade level.

TABLE 2.--Differential patterns of behavior by grade.

Grades 1-6	Grades 7-9	Grades 10-12
Carelessness in work	Carelessness in work (-)	Carelessness in work (decreased in frequency) (-)
Inattention	Inattention (-)	Cheating (-)
Cheating	Restlessness (+)	Smoking (-)
	Whispering, note-writing (+)	Stealing (+)
	Unexcused absences (+)	Unexcused absences (+)
	Interrupting (+)	Swearing (+)
		Drinking (+)

Each major pupil disruptive behavior is marked with a plus or a minus to indicate whether a behavior has increased or decreased from the preceding grade level groupings.

In a study undertaken by Dorothy Mutimer and Robert Rosemier (1967)[42] 455 boys and 456 girls in grades 7-12 and their fourteen female and twenty-six male teachers were asked to complete Wickman's questionnaire. The major findings were:

1. Violations of classroom work and behavior requirements constituted seventy-three per cent of the problem behaviors occurring in grades one to six.
2. Violations of classroom work and behavior requirements constituted seventy-seven per cent of the problem behaviors occurring in grades seven to nine.
3. Violations of classroom work and behavior requirements constituted twenty-eight per cent of the problem behaviors occurring in grades ten to twelve.

Another major finding summarized by Mutimer is:

> . . . data indicates that most types of problem behavior varied in frequency from grade level to grade level. Such problem behavior as carelessness in work, inattention, lying, and vandalism decreased in frequency from grades one to six to ten to twelve. Other problem behaviors such as smoking, unexcused absences, stealing, swearing, drinking, and illicit sex activities increased in frequency from grades one to six to ten to twelve. Still other problem behaviors such as restlessness, interrupting, smartness, whispering and notewriting, and disorderliness occurred most frequently in grades seven to nine.[43]

George Stouffer's[44] study of secondary school teachers and pupil disruptive behaviors treated grade lines in a more global manner: Grades 7-12 were called secondary; grades 1-6 were labeled elementary. Stouffer's findings showed behavior problems considered most serious by secondary teachers to be more extroversive in nature. Specific forms of extroversive behaviors are:

impertinence, destroying school material, interest in opposite sex, disobedience, profanity, and inquisitiveness. These behavioral problems are related to maintaining classroom order. Withdrawing tendencies (shyness, sensitiveness, suspiciousness) were not noted by secondary teachers to be most serious. It is interesting to note that elementary and secondary teachers agree on all but one of the serious behaviors--destroying school materials. In this case, secondary teachers rated this more serious than elementary teachers.

To summarize Stouffer's study, the agreement by elementary and secondary teachers over pupil disruptive behaviors was likely due to their moral sensitivities being collectively violated and that maintaining an orderly classroom was necessary for establishing an environment for learning.

Sex of the Teacher

Stouffer's[45] finding, although limited, may provide preliminary information regarding sex of the teacher and pupil disruptive behaviors. Seriousness of pupil disruptive behaviors identified by male teachers were compared to the total population used for his study. Stouffer believes that finding forms of pupil disruptive behaviors that groups of teachers consider "less serious" may provide a measure of a sex difference. The following "less serious pupil disruptive behaviors" were identified by male teachers:

1. Heterosexual activities
2. Masturbation
3. Physical cowardice
4. Smoking
5. Impertinence, defiance
6. Unreliableness
7. Disobedience
8. Temper tantrums

In reviewing the less serious pupil disruptive behaviors it can be found that they fall into three of Wickman's pupil disruptive behavior classifications--violations of general standards of morality and integrity, transgressions against authority, and violations of school work requirements. Although the data is limited, the cited pupil disruptive behaviors may not be important or serious to male teachers.

Sex of the Student

Eaton, D'Amico, and Phillips'[46] findings about sex of the student and occurrence of disruptive behaviors are in agreement with Wickman[47] and Epstein.[48] There is agreement about the following findings: (1) more boys than girls were involved in every type of pupil disruptive behavior. Exceptions to this statement are high increases of frequency in smoking and illicit sex activities of girls; (2) the difference between boys and girls (in favor of boys) was greatest at the senior high level

(10-12); the least amount of difference between boys and girls was at the junior high level; (3) disruptive behaviors equally distributed between boys and girls were carelessness in work, inattention, restlessness, and interruption; (4) disruptive behavior reached its peak for girls in grades 7-9 and for boys in grades 10-12.

One study, however, contradicts Eaton et al., and Epstein's findings. Hildreth's[49] data indicates a decrease in the percentage of male disruptive behaviors at the senior high level. This contradiction may be suspect as Hildreth's findings were based upon thirty-nine high school pupils of superior intelligence and economic background.

Summary

Reviewing the literature and research regarding pupil disruptive behaviors, four points become apparent. First, little research about this topic has been undertaken since the 1950's. Second, the research on pupil disruptive behaviors completed to date has in a very limited way concerned itself with sex of the teacher, sex of the student, socio-economic levels, years of teaching experience, subject matter areas, grade levels, school organizational patterns, community types, class size, and time spent with students. Third, research using the Wickman instrument of fifty pupil disruptive behaviors may be limited as the instrument was constructed and field

tested in 1926. Fourth, research about the student teacher and specific pupil disruptive behaviors is most limited.

Major Findings Summarized

1. Control technique exerted by the teacher does affect learning performances of classmates to the degree of the social power of the deviant being punished.

2. That teachers tend to be more concerned about controlling pupil disruptive behaviors that are related to the classroom work situation.

3. Aggressive pupil disruptive behaviors were reported more frequently. Inner directed behavior problems of students were subordinated by teachers to controlling pupil disruptive behaviors related to classwork.

4. The seriousness of pupil disruptive behaviors was largely viewed in the light of transgressions of the following types: immoralities, dishonesty, and acts against authority. Violations against classroom order and school work were also viewed as being very serious. On the other hand, pupil disruptive behaviors that constituted withdrawal or recessive personality and behavior traits were considered by teachers the least serious.

5. Limited research shows: Teachers with education beyond the bachelor's degree tend to look at pupil disruptive behaviors as being highly related to recessive personality behavior traits and withdrawal behaviors.

6. Black teachers were primarily concerned with pupil disruptive behaviors that are related to violations of orderliness in the classroom. White teachers tended to be primarily concerned with pupil disruptive behaviors that were related to immoraltiy, dishonesty and acts against authority.

7. Pupil disruptive behaviors in the lower ranges of intelligence (70 I.Q.) tend to be physical and aggressive in nature. The pupil disruptive behaviors in the upper ranges of intelligence tend to be reflective of withdrawal and recessive behaviors.

8. Disruptive pupil behaviors which would be violations of classroom work increased at each grade level until grades 10-12 at which time these misbehaviors noticeably changed.

9. Grades 1-6 tend to be characterized by pupil disruptive behaviors of carelessness in work, lying, inattention, vandalism (these behaviors are violations of honesty and orderliness in classroom work). Grades 7-9 tend to be characterized by pupil disruptive behaviors of restlessness, interruptions, smartness, whispering and notewriting, and disorderliness (behaviors are authority directed). Grades 10-12 tend to be characterized by pupil disruptive behaviors of smoking, unexcused absences, stealing, swearing, drinking, and illicit sex activities (behaviors are violations of moral codes).

10. Limited data indicates that male teachers are least concerned with violations against general standards of morality and integrity, transgressions against authority, and violations of school work requirements.

11. Male students are more involved in every type of pupil disruptive behaviors than girls. Girls significantly gain in the area of smoking and illicit sex activities.

12. Pupil disruptive behaviors reach the peak for girls in grades 7-9; boys reach their peak in grades 10-12. It might be pointed out that the "peaks" coincide with the periods of rapid physical growth and development of girls and boys.

FOOTNOTES--CHAPTER II

[1]William J. Gnagey, Controlling Classroom Misbehavior (Washington, D.C.: National Education Association, 1965).

[2]E. K. Wickman, Children's Behavior and Teachers' Attitudes (New York: The Commonwealth Fund, 1932).

[3]Bernard Berelson and Gary A. Steiner, Human Behavior: An Inventory of Scientific Findings (New York: Harcourt, Brace & World, Inc., 1964), p. 27.

[4]Fritz Redl and D. Wineman, Controls From Within (New York: The Free Press, 1952); Fritz Redl, When We Deal with Children (New York: The Free Press, 1966); Fritz Redl and D. Wineman, The Aggressive Child (New York: The Free Press, 1957).

[5]R. J. Corsini and D. D. Howard, Critical Incidents in Teaching (Englewood Cliffs, N.J.: Prentice Hall, Inc., 1964), p. v.

[6]Donald M. Medley and Harold E. Mitzel, "Measuring Classroom Behavior by Systematic Observation," in Handbook of Research on Teaching, ed. by N. L. Gage (Chicago: Rand McNally & Company, 1963), p. 250.

[7]J. S. Kounin and P. V. Gump, "The Ripple Effect in Discipline," Elementary School Journal, Vol. 59 (December, 1958), 158-162.

[8]J. S. Kounin, Wallace V. Friesen, and A. Evangeline Norton, "Managing Emotionally Disturbed Children in Regular Classrooms," Journal of Educational Psychology, Vol. 57, No. 1 (February, 1966), 1-13.

[9]Berelson and Steiner, op. cit.

[10]William J. Gnagey, "Effects of a Deviant Student's Response to Discipline," Journal of Educational Psychology, Vol. 51 (February, 1960).

[11]Kounin, Friesen and Norton, op. cit., pp. 1-13.

[12]Gnagey, "Effect of a Deviant Student's . . . ," p. 8.

[13]Fred N. Kerlinger, Foundations of Behavioral Research (New York: Holt, Rinehart and Winston, Inc., 1967).

[14]Tyrus Hillway, Handbook of Educational Research: A Guide to Methods and Material (Boston: Houghton Mifflin Company, 1969).

[15]Wickman, op. cit.

[16]Ibid.

[17]Ibid., pp. 26-50.

[18]Ibid., p. 115.

[19]Ibid., p. 116.

[20]George A. Stouffer, "Behavior Problems of Children as Viewed by Teachers and Mental Hygienists: A study of Present Attitudes as Compared with those Reported by E. K. Wickman," Mental Hygiene, 36 (1952), 271-285.

[21]Manfred H. Schrupp and Clayton M. Gjerde, "Teacher Growth in Attitudes of Children," Journal of Educational Psychology, Vol. 44 (1953), 203-214.

[22]E. C. Hunter, "Changes in Teachers' Attitudes Toward Children's Behavior over the Last Thirty Years," Mental Hygiene, Vol. 41 (January, 1957), 3-11.

[23]Goodwin Watson, "A Critical Note on Two Attitude Studies," Mental Hygiene, Vol. 17 (January, 1933), 59-64.

[24]Ibid., p. 62.

[25]Stouffer, op. cit., pp. 271-285.

[26]Schrupp and Gjerde, op. cit., pp. 203-214.

[27]Hunter, op. cit., pp. 3-11.

[28]Ibid., p. 11.

[29]Stouffer, op. cit., pp. 271-285.

[30]Schrupp and Gjerde, op. cit., pp. 203-214.

[31]Hunter, op. cit., pp. 3-11.

[32]Leigh Peck, "Teachers' Reports of the Problems of Unadjusted School Children," Journal of Educational Psychology, Vol. 26 (January-December, 1935), 123.

[33]Ibid., p. 124.

[34]J. N. Sparks, "Teacher Attitudes Toward the Behavior Problems of Children," Journal of Educational Psychology, 43 (1952), 284-291.

[35]James E. Greene and Frances Gatesky, "Discipline and Morale," Journal of Teacher Education, Vol. XII, No. 4 (December, 1961), 437-447.

[36]Julius Yourman, "Children Identified by Their Teachers as Problems," Journal of Educational Sociology, Vol. 5 (September, 1931-May, 1932), 334-343.

[37]John Levy, "Quantitative Study of Relationship Between Intelligence and Economic Factors in the Etiology of Children's Behavior Problems," American Journal of Orthopsychiatry, I, 2 (January, 1931).

[38]Yourman, op. cit., p. 337.

[39]Ibid.

[40]Levy, op. cit.

[41]Merrill T. Eaton, Louis D'Amico, and Beeman N. Phillips, "Problem Behavior in School," Journal of Educational Psychology, Vol. 47 (October, 1956), 350-357.

[42]Dorothy Mutimer and Robert Rosemier, "Behavior Problems of Children as Viewed by Teachers and Children Themselves," Journal of Consulting Psychology, Vol. 31, 6 (December, 1967), 583-587.

[43]Ibid., p. 354.

[44]Stouffer, op. cit., pp. 271-285.

[45]Ibid.

[46]Eaton, op. cit., pp. 350-357.

[47]Wickman, op. cit.

[48]Leon Epstein, "An Analysis of Teachers' Judgments of Problem Children," The Journal of Genetic Psychology, 59 (1941), 101-107.

[49]Gertrude Hildreth, "A Survey of Problem Pupils," Journal of Educational Research, Vol. XVII (June, 1928), 1-14.

CHAPTER III

METHODOLOGY

Population and Sample

The subjects who participated in this study were teachers from the Michigan public schools. Since it was impossible to obtain a list of all the public school teachers within the state, the unit of selection was the school rather than the individual teacher.

Using the Michigan Education Directory for 1967-68, each school within the state was placed into one of five strata based on the enrollment of the school district in which it was located. The criteria for the strata were as follows: stratum 1, all schools in districts with an enrollment of 19,000 or more; stratum 2, all schools in districts with an enrollment of 5,000 to 18,999; stratum 3 consisted of those in districts with enrollments from 2,500 to 4,999; stratum 4, those in districts with enrollments from 1,000 to 2,499; and finally, stratum 5, all schools in districts with enrollments below 1,000. The schools in each stratum were then divided into elementary, junior high and high schools. Thus, each school in the state was stratified on two variables: (1) the size of the school district in which it was located; and (2) whether it was an elementary, junior high or senior high school.

Using a table of random numbers, 5 per cent of the schools were selected from each sub-stratum. This procedure led to the selection of 194 schools from 132 different school districts in Michigan.

Following selection of the schools, a letter requesting permission to conduct the survey in the sampled schools was sent to the superintendent of each of the 132 school systems. A response blank and a self-addressed envelope were included to facilitate prompt return. If no reply was received, a follow-up card was sent approximately one month after the letter. If the follow-up card failed to produce a response within two weeks, a telephone call was made to the superintendent. If permission was not granted by the superintendent, the district was dropped from the sample with no replacement. Supervisory permission was granted for 188 schools, indicating that only six schools were eliminated at this stage.

The next step was to obtain permission from the principals in the sample schools. A letter, similar to the one sent to the superintendents, was sent to the principals involved. The letter indicated that supervisory approval had been obtained, and requested the principal's approval and cooperation in collecting the data. In order to facilitate the principal's decision, a sample copy, similar to the final copy, of the survey was included with the letter. And again, a response blank and a self-addressed envelope was included. The response

blank provided space for the principal to indicate the number of teachers in his school. To avoid problems due to ambiguity in the term "teachers," the response blank defined teacher as: "A teacher is anyone who is assigned responsibility for classroom instruction of a group or scheduled set of groups of children, and who has contact with each of the said children two or more times a week." If no reply was received within six weeks, a follow-up post card was mailed to the school. If after another two weeks, there was still no reply, a duplicate set of materials was mailed. This included a new letter, a sample copy of the survey, and another response form. Finally, after another two weeks, a telephone call was made to those principals who still had not responded. Of the 188 schools receiving supervisory approval, 35 were eliminated from the sample because their principals did not wish to have their schools participate. This left 153 schools remaining in the sample. As shown in Table 4, the faculties of these schools totaled 3,806 teachers. Of these teachers, 3,149 (82.7%) actually participated in the study by responding to the survey.

Instrument Development

The items used in this survey were developed through the cooperative efforts of educational psychologists, curriculum specialists and experienced teachers. As a first step, each member of the team submitted a list of behaviors

which he perceived as possible discipline problems in the classroom. Approximately 180 items were obtained by this method.

The second step in preparing the survey involved eliminating overlapping statements and rewriting ambiguous items. In addition, if the majority of the team felt that a behavior was unlikely to ever be exhibited in the classroom, the item was eliminated. This stage in the selection process resulted in a list of 140 items; thus, approximately 40 items were eliminated by the team of specialists.

Following selection of the behavioral statements for the first version of the survey, the team agreed upon four questions that would be asked about each statement. The questions for the first version were: (1) How often do you encounter this behavior?--to be rated on a six-point scale ranging from hourly to never; (2) How do you perceive this behavior?--to be rated on a five-point scale ranging from extremely serious to harmless; (3) How much attention should teacher training programs designed for your type of teaching situation devote to preparing teachers to deal with this behavior?--to be rated on a three-point scale ranging from great emphasis to no attention; and (4) To what extent would you like to know alternative techniques for dealing with this behavior?--to be rated on a four-point scale.

Finally, one member of the group wrote a set of instructions for the survey. A copy was given to each of the other members for revision.

The first version of the survey was assembled, including 140 behavioral statements and four questions about each statement; it required 560 (140 x 4) choices from the respondents. The assembled first version was submitted to the team of specialists and each member made specific recommendations as to changes in the wording of the directions or items. When these changes had been incorporated, a second version was drawn up and administered to a group of graduate assistants, who were former teachers, at Michigan State University. First, they were asked to respond to the survey as though they were part of the sample; then, they were individually interviewed to determine where there was ambiguity in the instrument. Changes were made in the survey based on the graduate assistants' suggestions. This resulted in the third version of the survey, which, because of the above pilot testing, now consisted of 129 behavioral statements.

The third version of the questionnaire was administered to 180 teachers from the Lansing Public Schools. Also administered was a 15-item background data sheet prepared by the team of specialists. As a result of this administration, three major changes were made in the survey: (1) it was decided to split the survey into two forms because the time required to respond to the whole

survey was likely to discourage cooperation; (2) the directions were revised to eliminate newly detected sources of ambiguity; and (3) the number of questions asked about each behavioral item was reduced from four to two and the response choices for the first question were revised. The two questions retained were: (1) How often do you encounter this behavior? and (2) How do you perceive this behavior? This latter change was made because it was found that questions three and four were not functioning to discriminate between items nor between respondents. The response choices for question one were reduced from six to five. Omitting the option "monthly," the choices for the fourth version included: hourly, daily, weekly, seldom, and never.

Final Instrument

The final version of the survey was based on the results of all of the pilot testing discussed above. Each form of the survey consisted of three pages--the first page containing 11 demographic items, and the second and third pages consisting of a total of 66 behavioral statements about which the teachers were asked two questions. Thus, in addition to providing demographic data, the teachers were each asked to make 132 responses (66 items x 2 questions per item). There were two different forms of the instrument, with only five items identical on both forms.

The questionnaire was overprinted with non-reflective ink onto standard IBM 551 answer sheets. This facilitated scoring by the IBM 1230 optical scanner. Since all the personal data sheets were alike, they were printed on the same color answer sheet--red. For form A, pages two and three were printed on red answer sheets; for form B, green answer sheets were used. Use of different colors for different forms expedited handling. This final form of the survey represented the fourth version developed.

Data Collection

After a principal had agreed to cooperate, the survey materials for all the teachers in the school were mailed to the principal. The mailing envelope included: (1) a letter to the principal explaining the envelope's contents and suggesting a procedure for within-school distribution and collection of the surveys; (2) a return envelope(s) with first class postage affixed; and (3) one survey packet for each teacher in the school. A survey packet included all the materials a teacher needed to participate in the study--a letter of explanation, two pages of directions, and a three-page questionnaire. In preparing the mailing envelope, half of the packets were form A and half were form B. In an attempt at random assignment, the two forms were alternated within a given mailing envelope. The outside of each packet was numbered sequentially within any given school. For example, a

school with 28 teachers would receive packets numbered on the outside from 1 to 28. The odd numbered packets would contain form A of the survey and the even numbered packets would contain form B. The numbers on the outside of the packets were designed to facilitate data collection within a school. Since anonymity was to be protected, the school principal would be unable to look inside the packets to determine who had not returned a completed survey. However, by having the outside of the packets numbered, the principal would be able to post the numbers of the unreturned packets.

It should be pointed out that the coding system used on the actual survey pages was quite different from the numbering system used on the outside of the packets. Each survey sheet was marked with a five-character (4 numbers and 1 letter) identification number. The numbers 1000-3200 were used for form A; the numbers 5000-7200 were used for form B. All three survey pages in one packet were marked with the same four-digit number. The letter (A, B, or C) indicated whether the data represented responses to page 1 or 2 of the survey or the background data sheet. This coding system was designed to facilitate data processing and analysis.

Once the surveys were returned to Michigan State University, they were prepared for reading by the optical scanner. Each page was individually checked: stray marks were erased; answers incorrectly placed were adjusted;

and pages with less than 33 per cent of the items responded to were withheld from analysis. The IBM 1230 optical scanner "read" each survey page and automatically punched a computer data card with all the information contained on the survey sheet.

Computer Programs

The Agricultural Experiment Station operating through Michigan State University has developed a package program which will calculate basic statistics for a set of data. This study makes use of two segments of such a package; namely, the mean score of each block of variables and their associated standard deviations.

Because of the large amount of missing data encountered in analyzing the study, a modification of the basic package needed to be employed. By missing data one is referring to the situation in which, for a given observation, the values of some variables are known, but the values for other variables are unknown. The unknown values are the missing data. The modification of the basic statistics package provides that in calculating all statistics for an individual variable (such as mean and standard deviation), only the observations with non-missing values for that variable are used. This program enabled the researcher to calculate the average frequency of occurrence of each behavior problem and its associated seriousness.

TABLE 3.--Number of schools in original and final sample (breakdown by stratum and level).

	Elementary		Junior High		Senior High		Total	
	Original Sample	Final Sample	Original Sample	Final Sample	Original Sample	Final Sample	Original Sample	Final Sample
Stratum 1 (over 19,000)	28	18	6	5	6	2	40	25
Stratum 2 (5,000 -18,999)	44	37	8	6	5	4	57	47
Stratum 3 (2,500-4,999)	28	24	5	5	5	4	38	33
Stratum 4 (1,000-2,499)	27	22	7	5	11	11	45	38
Stratum 5 (under 1,000)	7	5	2	1	5	4	14	10
Total	134	106	28	22	32	25	194	153

TABLE 4.--Number and per cent of teachers in original and final samples (breakdown by stratum and level).

	Original sample	Sample after superintendent and principal responses	Number of surveys returned	% of original	% of those sent out
Stratum 1					
Elementary	717	387	272	37.9	70.3
Junior High	264	194	173	65.6	89.2
Senior High	503	290	199	39.6	68.6
Total	1,484	871	644	43.4	73.9
Stratum 2					
Elementary	766	643	547	71.4	85.1
Junior High	457	412	338	73.9	82.0
Senior High	461	278	227	49.2	81.7
Total	1,694	1,333	1,112	65.6	83.4
Stratum 3					
Elementary	394	358	335	85.0	93.6
Junior High	204	204	169	82.8	82.8
Senior High	205	116	98	47.8	84.5
Total	803	678	602	74.9	88.8
Stratum 4					
Elementary	446	422	379	84.9	89.8
Junior High	103	75	72	69.9	96.0
Senior High	262	253	203	77.4	80.2
Total	811	750	654	80.6	87.2
Stratum 5					
Elementary	89	80	65	73.0	81.3
Junior High	8	0	0	--	--
Senior High	108	94	72	66.6	76.6
Total	205	174	137	66.8	78.7
GRAND TOTAL	4,987	3,806	3,149	63.1	82.7

An additional computer program was necessary to analyze the responses made by the teachers to see if any systematic differences had occurred. The initial problem was to decide on which estimation procedure would be statistically most powerful in handling the missing data. The procedure eventually decided upon was to substitute the mean for the cell in which the missing datum occurred for each piece of missing data. That is to say, if a male failed to respond to question 10 on the questionnaire his score would be missing. To compensate for this the program will compute the mean of all the other males who did respond to question 10 and give the missing person that score. To correct for this biased substitution one decreased the number of degrees of freedom associated with the significance test for that category by the number of substitutions made. This has the effect of making any conclusions from the results of such a test more conservative; that is, it makes it more difficult to detect statistically significant differences. This procedure is described by Cox[1] in his book entitled Planning of Experiments, and by Yates.[2]

Design

The design from which the analysis was performed is known in the literature as a two-way analysis of variance--repeated measures design. This implies that there are two ways of classifying each piece of datum, and that for each

subject who participated in the study there is more than one observation or response recorded on him. In this study the ways of classifying the datum were by demographic characteristics and the item to which response was made. These dimensions are commonly referred to as factors and in some instances as design variables. There are 66 observations or responses recorded on each person. Hence the responses to each question are the repeated measures.

As an example, let us consider two design variables; call them "Sex" and "Items." Diagrammatically they would appear something like Figure 1.

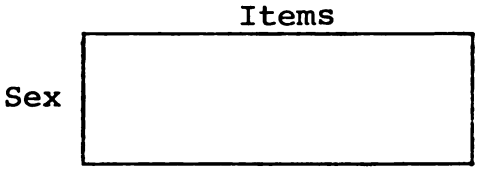

Figure 1

Further, let us assume that there are three Items; call them Q 1, Q 2, and Q 3. In the literature these would be referred to as levels of the factor Items. Further assume that there are two levels of the factor Sex (male and female). The design now looks like Figure 2.

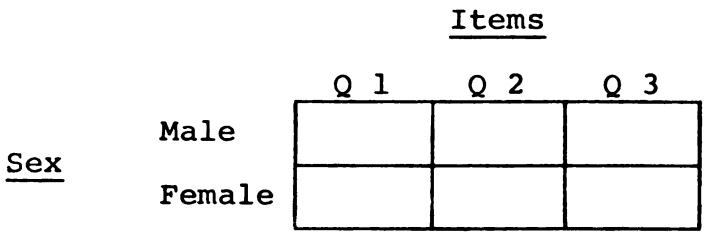

Figure 2

In order to get data we will use people's responses to Items Q1-3, and note the sex of each respondent. For the sake of illustration, let us assume that there are five respondents: two men and three women, denoted S_1, S_2, S_3, S_4, S_5, respectively. The result now looks like Figure 3.

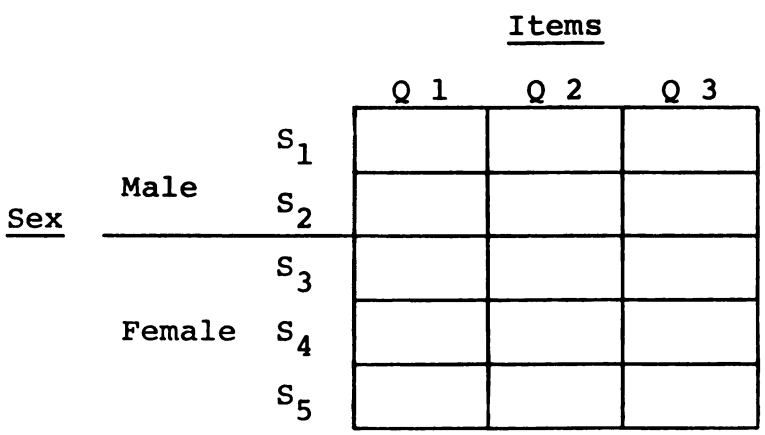

Figure 3

Since each person appears in only one level of the factor Sex, it is said to be nested within that factor.

Let us further denote each person's response by the letter X. For clarification we will elaborate upon this

letter to indicate which person we are talking about and which item he responded to. This will be done by using subscripts. Let us agree that the first subscript will be for the person and the second will be for the item. Hence,

X_{11} means Subject 1's response to Item 1

X_{12} means Subject 1's response to Item 2

X_{53} means Subject 5's response to Item 3.

Our final design now looks like Figure 4.

			Item		
			Q 1	Q 2	Q 3
Sex	MALE	S_1	X_{11}	X_{12}	X_{13}
		S_2	X_{21}	X_{22}	X_{23}
	FEMALE	S_3	X_{31}	X_{32}	X_{33}
		S_4	X_{41}	X_{42}	X_{43}
		S_5	X_{51}	X_{52}	X_{53}

Figure 4

The design for this study uses 132 items and approximately 3,500 subjects. The variable sex is periodically replaced by other demographic variables with appropriate levels. (Chapter IV enumerates the variables and the associated levels).

The design enables one to answer three questions about the data:

1. Is there any significant difference in the responses to the items when looking at just the dimension of items?
2. Is there any significant difference in the responses to the items looking at just the dimension sex?
3. Is there any significant difference in the responses to the items due to the fact that we have classified each response along two dimensions?

The third question is referred to as the interaction effect. Essentially, it means that the variability among persons' scores is a non-additive function of the particular level of the factor sex and a particular level of the factor items in our example. It is crucial that the importance of the interaction effect be noted to correctly interpret the findings of this study.

To clarify this effect of interaction further, consider the following example. Assume one wants to compare the perceived seriousness of two different behaviors. To do this a set of two behavior statements is given to a sample of persons. For reference purposes call these behavior statements Q 1 and Q 2, respectively. Assume that the sample consists of 50 men and 50 women, and that each behavior can be marked 1-5 on a scale of increasing seriousness of the behavior. Let us further assume that 25 men and 25 women are given only Q 1, while the other

25 women and 25 men are given Q 2. Suppose that the sample means for the four subgroups turn out as follows:

	Q 1	Q 2	
Male	2	5	3.5
Female	4	3	3.5
	3	4	

Such data would lead to the conclusion that no difference exists between males and females on their responses to the behaviors, since the mean for Males across items is 3.5 and the mean for Females across items is also 3.5. However, the perceived seriousness of the behavior differs in the sample if the sex of the respondent is ignored. Indeed, Q 1 is perceived less serious than Q 2 since the mean for Q 1 is 3, while the mean for Q 2 is 4. Furthermore, an interaction effect exists since the difference of the scoring for Males (5 - 2 = 3) is not equal to the difference of the scoring for Females (3 - 4 = -1).

Suppose the researcher is now interested in predicting which of the two behaviors would be perceived more serious by a given individual. If the researcher does not know or does not want to specify the sex of the individual then Q 2 is his choice since the mean for Q 2 is greater than Q 1. If, however, he knows that the respondent is Female, then he should choose Q 1, since <u>within</u> the population of females the mean of Q 1 is greater than Q 2.

Hays[3] summarizes this point as follows:

> Significant interaction serves as a warning: treatment effects do exist, but to specify exactly how the treatments differ, and especially to make good individual predictions, one must look within levels of the other factors. The presence of interaction effects is a signal that in any predictive use of the experimental results, effects attributed to particular treatments representing one factor are best qualified by specifying the level of the other factor.

FOOTNOTES--CHAPTER III

[1]D. R. Cox, Planning of Experiments (New York: John Wiley & Sons, 1958), p. 31.

[2]F. Yates, "The Analysis of Replicated Experiments when the Field Results are Incomplete," Empirical Journal of Experimental Agriculture (1933), 129-142.

[3]William Hays, Statistics (New York: Holt, Rinehart and Winston, 1963), p. 391.

CHAPTER IV

ANALYSIS AND INTERPRETATION

The analysis and interpretation of the data are organized in the following manner: first, there is a one-page summary of the most frequently occurring pupil disruptive behaviors (Appendix A). The criterion for inclusion on this list was that the behavior be perceived as occurring at least once a week. This criterion identified only 21 of the 132 discipline situations. The 21 behaviors are ranked in order of their frequency. Two numbers are associated with each statement and reflect, in order, the perceived frequency of the behavior and the perceived seriousness of the behavior. The scale of frequency is as follows:

1 = Hourly
2 = Daily
3 = Weekly
4 = Monthly
5 = Never

The scale for seriousness is as follows:

1 = Positive
2 = Harmless
3 = Nuisance
4 = Serious
5 = Extremely Serious

For example; the first disruptive behavior reads as follows:

1. SHOWING DISRESPECT FOR ANOTHER STUDENT'S OPINION (1.0000)(3.3219)

The numeral 1 at the left of the statement indicates the ranking among the twenty-one behaviors listed. The first number (i.e. 1.0000) at the right indicates the perceived frequency of the item; which according to the aforementioned scale is interpreted as occurring hourly. The second number (i.e. 3.3219) indicates the perceived seriousness of the item which according to the scale for seriousness would be seen as being a nuisance.

The second part of the interpretation shows how each of the 21 behaviors were perceived when teachers were grouped according to selected demographic variables (Appendix B). Within each demographic variable are divisions and these divisions are ranked in the following ways: the frequency of each division was calculated and the divisions were ranked high to low on the frequency dimension. The perceived seriousness was then calculated and the divisions within each variable were ranked most serious to positive. As an example consider the following behavior:

Making Noise In The Halls.

When this item was inspected according to the category variable sex, males perceived it occurring more frequently than did females, but females saw it as being more serious than males. This is reflected in the tables in Appendix B as:

CATEGORY	FREQUENCY	SERIOUSNESS
Sex	Male	Female
	Female	Male

The demographic variables or categories and their associated divisions identified in this study are:

1. Sex of the teacher

   Male
   Female

2. Socio-economic status of the school as perceived by the teachers

   Low
   Middle
   High

3. Educational level of the teacher

   Doctoral degree
   Educational specialist
   Master's degree
   Bachelor's degree or some college
   High school degree

4. Age of the teacher

   21 or under
   22-25
   26-30
   31-40
   41-50
   51-60
   over 60

5. Years teaching experience of the teacher

   0- 1
   2- 4
   5-10
   11-20
   over 20

6. Teaching the same group all day

   Yes
   No

7. Class size

   10 and under
   11-16
   17-20

21-27
28-34
Over 34

8. Team teaching

Yes
No

9. Special education

Yes
No

10. Teacher classification by subject matter

Special education K-6
Special education 7-12
Regular K-3
Regular 4-6
Foreign language, language arts, social studies, and humanities
Art, music, industrial arts
Library
Health/physical education
Safety/driver education

Appendix C includes a set of tables which reflect the output of a statistical procedure known in the literature as ANALYSIS OF VARIANCE (ANOVA). This procedure was used to analyze the design indicated in Chapter III. The tables are to be interpreted as follows:

1. The title at the top of the page indicates the category variable that is being investigated (Sex, Age, etc.).

2. The next line indicates the dimension that is being investigated (Frequency or Seriousness) and the form that is being analyzed (Red or Green).

3. The column labeled Source indicates the questions that the design is set up to answer. That is to

say, Groups indicates the question--Is there any systematic difference in the way the different divisions of the category variable perceive the items, ignoring the dimension of individual question? Items asks the question: Is there any systematic difference in the responses to the items ignoring the dimensions of the category variables? Groups x Items (read groups by items) asks the question: Is there any interaction because the responses have been classified along the Group and Item dimension? The other categories--Subject and Items x Subject-within Groups--are necessary, statistically speaking, to answer the above questions and can be ignored during the interpretation. The last three columns numerically answer the questions posed by the design. The column labeled F indicates the computed value of the test statistic for the ANOVA technique. The column headed by $F_{(.05)}$ indicates the number that must be exceeded before one can be 95 per cent confident that the computed F happened by something other than chance. $F_{(.01)}$ indicates the number that must be exceeded before one can be 99 per cent confident that the computer difference happened by something other than chance. If this figure(s) is exceeded then one claims to have significance along the dimension investigated. Since this study is explanatory both the columns $F_{(.05)}$ and $F_{(.01)}$ are included so that future readers may decide what α level (.05 or .01) they want to use if they choose to utilize these findings.

In most of the analysis of variance tables in Appendix C, significant effects associated with items, groups, and items by groups interaction have been found.

If the researcher is content with global statements about the perceived frequency and seriousness over all questions for each subgroup of the population (e.g., Males, Females), then further analysis of the significant main effects associated with demographic groups is in order. However, before the researcher embarks on such a course of action, it should be noted that such a post hoc analysis would result in stereotypic statements about the set of behavior items of the form:

> Females perceive these 132 behaviors on the average to occur more frequently than do males.

While such statements may be statistically defensible, this researcher would argue that the statements have little practical utility in the context of this study and are potentially subject to serious misinterpretation on the part of statistically naive readers. Users of these data are unlikely to draw conclusions about the arbitrarily chosen set of 132 behavior disorders included in this study; instead, they are more likely to make global statements about all behavior disorders, not just those actually included in this study. Because of these serious considerations, post hoc analyses WILL NOT be performed.

Others who are less tempted to extrapolate beyond the limits of the data may be disappointed with the

vagueness of statements about the "132 behaviors on the average." They may prefer to examine specific behavior disorders that occur frequently in the schools. To these readers the tables in Appendices B and C are directed.

CHAPTER V

CONCLUSIONS

The most frequently occurring and most seriously perceived behavior problems that this study revealed were concerned with student actions and attitudes toward other students. Specifically, showing disrespect for another student's opinion and drawing pictures to poke fun at another student were the behavior problems perceived as most serious among those problems identified as frequently occurring.* This study's identification of disruptive student peer relations as the most serious and most frequently occurring type of behavior problem contradicts Wickman's study which implied that activities undermining the teacher's authority would be seen as the most serious and most frequently occurring.

Unfortunately, the questionnaire design was not constructed along the same dimensions as the Wickman or other similar studies. Consequently, trying to see the pattern of responses from that point of reference might result in what could easily become a data forcing situation. That is to say, one would be forcing the questionnaire responses

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*From personal teaching experience, this latter item seems counterintuitive.

into a structure which could only coincidentally be a realistic vantage point. The questions were so episodic in form that the only sort of pattern that might be identified would be the result of strictly visually inspecting the data. Such ocular inspection can lead to only spurious remarks and ambiguous conclusions.

Although it is desirable to be able to make a few short powerful statements summarizing all the findings of one's study, the findings of this study are not amenable to such statements. The reason for this is twofold and covers the dimensions of statistics and questionnaire design. Chapter IV indicated that the presence of a significant interaction effect precludes global statements about the category variables. Moreover, the unstructured character of the questionnaire precludes summary statements about specific dimensions of discipline. However, a change in the questionnaire construction might have offered the opportunity to generate strong summary statements pertaining to disciplinary dimensions. An attempt should have been made to break the concept of discipline into specific areas of concern or classes and to design questions or examples around these specific behavior class groupings. The examples thus generated for inclusion on the questionnaire are instances of these behavior classes. The literature would refer to the concept of classes as "factors" and to the instances as "items." Then choosing several instances of each class and randomly assigning them to the

questionnaire, one could later see if there was consistency among the teachers in the way they responded to those items which represent a common factor. The statistical procedure used to determine whether these items are, in fact, instances of the factors identified on an a priori basis is known as factor analysis. Such a statistical procedure is easily adaptable to computers for the benefit of the researcher. The important thing to note is that this method designs the questionnaire along a priori considerations, and that the factor analysis merely confirms or denies the existence of factors around which the researcher has attempted to structure his questionnaire.

Identification of the disciplinary problems in terms of a set of mutually exclusive and jointly exhaustive factors rather than as a set of partially redundant instances of disruptive behaviors would have several advantages to the teaching practitioner and the educational researcher:

1. Analysis of the perceived seriousness and frequency of occurrence of disruptive behaviors which are instances of a particular factor would provide the School of Teacher Education with broadly based information. Such data are both more parsimonious and potentially more usable than are the summary tabulations for specific disruptive behaviors.

2. Analysis of the factors underlying disruptive behaviors according to the categories of the demographic variables would enable educational researchers to

determine whether the pattern of perceived behavior problems varied with the demographic characteristics of the teachers. If such variation were found, differential training programs for certain groups might be developed. Once again, use of the factors underlying disruptive behaviors would lead to a more parsimonious data analysis than would reliance on the individual instances of disruptive behavior.

Once the questionnaire is constructed along structured lines, specific changes could be made in the demographic questions asked. The category concerned with educational level should be modified to reflect the state defined educational levels indicated in certification requirements. The teacher classification code should be scrutinized very carefully to see if the groupings clearly reflect the researcher's intent. In particular, the grouping art, music and industrial arts, calls into question the criteria employed for classification of the teaching codes. Changes in this category and in others are easy to make, but must be done before the raw data are transferred to data cards. The topic of special education classes occurs twice on the form--once as a separate item and once in the subject matter area category. It would be advisable to delete it as a separate item since it is recoverable in the latter category. A question on the use of student teachers and/or of paraprofessionals would seem to complement the questions dealing with the teacher's age

and years of teaching experience. In view of the many recent investigations seeking to relate dimensions of teacher personality and characteristics of the teacher-student teacher or teacher-paraprofessional relationship, it might be of considerable interest to determine whether there is any relationship between the perception of discipline and the use of either student teachers or paraprofessionals. Such items might be of the form:

"Have you used one or more student teachers in the last two years?"

Yes _____ No _____

"Have you used one or more paraprofessionals in the last two years?"

Yes _____ No _____

Additional information concerning the school and the curriculum used in the school could also be included in the demographic cover sheet. This information could be provided by the principal of the school and then gang punched onto the information cards for each teacher in that school. For example, information provided by the Office of Economic Opportunity with regard to the socio-economic standing of the individual school as well as the tax base and millage history would provide a source of association between the school setting and behavior of the pupils. An index of community participation including, for example, PTA attendance and the presence or absence of school-community clubs would be of tremendous importance in discussing the school environment and its relationship

to discipline. A consideration of the relationship of discipline to the curriculum of the school would be equally important and might be ascertained through questions of the nature:

"Do you use ungraded classes?"

Yes _____ No _____

"Do you use letter grades as your course evaluation?"

Yes _____ No _____

The present questionnaire does not distinguish between the teachers' perceptions of behavior problems occurring at the junior high school level and those at the senior high school level, nor does it consider disciplinary problems perceived as characteristic of the middle school. A cleaner breakdown of schools is needed. The suggested categories would be

Elementary

Middle School

Junior High School

Senior High School.

It might be desirable to use an alternative sampling procedure in such a study if it were to be replicated. An excellent substitute would be to use a principal component analysis of variables to set up the school district strata. The task of representative sampling can be best thought of along two dimensions: homogeneity of each stratum and a proper proportion of each stratum in the final sample. Whereas this study samples proportionately from each

stratum, insuring a proper final sample, it delineates each school district along only one dimension--student enrollment. An alternative would be to delineate each school district along many dimensions. As an example, the following dimensions are listed for consideration:

Average daily attendance

Per pupil expenditure

Millage rate

Number of certified personnel

Student credit hours

Capital outlay.

Such a multidimensional approach would more accurately depict a school district. The problem with this approach as it stands now is that there are six dimensions on which to categorize or stratify each school district. To reduce the number of dimensions yet still keep their contribution to the overall "picture" of the school district one might use a principal component analysis of these dimensions. This analysis is a statistical technique which is similar to the factor analysis procedure described earlier. The result of the principal component manipulation would be the creation of a new variable which subsumes each of the six variables mentioned in a proportionate manner. The "amount" of each of the six variables is determined by a weight generated by the mechanics involved in performing the analysis. One now multiplies each school district's figures on each of the six

characteristics by the respective weights and obtain a "total score" for each district. At this point one now forms strata based on these total scores. The equality of these total scores ensures homogeneity of each school district within each stratum along not one but several dimensions.

The proportional allocation used in this study, while defensible, tends to misleading information. That is to say, the strata that were ultimately established were done on district enrollment as amplified in Chapter III. The final sample, however, produced such a small number of cases in the lower strata that an accurate picture of these strata is simply not available. The principal component analysis and subsequent construction of strata would tend to make the strata more homogeneous in size. As a result, the proportional allocation done from these strata would tend to provide more valuable information since there would be fewer strata, if any, with a small number of cases.

Nonrespondents are always a problem in survey studies and this project did not escape. However, since anonymity was guaranteed to each teacher in the school, it was impossible to directly put pressure on individual teachers to mail in their questionnaires. The principals were urged to cooperate, but excessive pressure in that respect would have easily dissuaded them and the teachers in their building from cooperating. Given the real

constraints of the sources of data in this study, everything that could be done to insure a high response rate was done.

A major problem cited in analyzing the data for this study was how to account correctly for missing data. An alternative to the method used would employ the respondent's available responses, and from these estimates, predict his missing responses. Such a procedure would be the Buck[1] procedure which estimates the missing values by regression techniques and calculates a revised variance-covariance matrix. This method is suitable for computer computation of the missing values.

The implications for further study and indeed for similar replication on the same topic as this dissertation are numerous. From the previous discussion a partial list of questions is included for further consideration:

1. Is there a difference in teachers' perceptions of the frequency and seriousness of selected behavior problems when classified along different category and demographic variables?

2. Is there a difference in teachers' perceptions of the frequency and seriousness of selected behavior problems when the data are analyzed using the Buck procedure to estimate missing data?

3. Is there a difference in teachers' perceptions of the frequency and seriousness of selected behavior

problems when the sampling strata are defined using a principal component structure?

4. Is there a difference between student teachers and experienced teachers in their perceptions of the frequency and seriousness of selected behavior problems when blocked on identical demographic variables?

5. Is there a difference in the perceptions of frequency and seriousness of selected discipline problems between individuals who have undergone formal student teaching and those who have received credit for student teaching by equivalency, i.e. by virtue of previous work experience or substitute teaching?

6. Are there significant differences between the levels of the demographic variables (e.g. male and female)?

This study has attempted to be explanatory and descriptive. It has tried to establish reliably the association between one or more phenomena, or dependent variables, and one or more independent variables. It is hoped that a replication of this study incorporating the suggestions discussed in this chapter would accomplish the following: that a general description and an explanation would be rendered readable; that a method toward generality would be shown; and that a gain in diagnostic power from the descriptive data would be realized to serve as a prelude to the development of a sharpened theory of discipline and its relationship to teaching.

FOOTNOTES--CHAPTER V

[1]S. F. Buck, "A Method of Estimation of Missing Values in Multivariate Data Suitable for Use with an Electronic Computer," Royal Statistical Society Journal, Series B, Vol. 22 (1960), 302.

APPENDICES

APPENDIX A

MOST FREQUENTLY OCCURRING PUPIL DISRUPTIVE BEHAVIORS

APPENDIX A

MOST FREQUENTLY OCCURRING PUPIL DISRUPTIVE BEHAVIORS

1. Showing disrespect for another student's opinion. (1.0000), (3.3219)
2. Drawing picture to poke fun at another student. (1.000), (4.5392)
3. Making noise in the halls. (2.2421), (2.9868)
4. Whispering, or nonverbally communicating at inappropriate times. (2.2642), (3.1369)
5. Smoking on school property. (2.3945), (4.4016)
6. Failing to follow directions for assignment. (2.4734), (2.0901)
7. Turning in messy papers. (2.5472), (2.6711)
8. Possessing brass knuckles, molotov cocktails, etc. on school property. (2.5621), (4.9396)
9. Slouching or otherwise sitting inappropriately in seat. (2.6001), (2.8266)
10. Holding hands outside of class on school property. (2.6167), (3.8943)
11. Making allusions to sex (written or verbal). (2.7084), (3.9791)
12. Chewing gum in class. (2.9629), (2.7550)
13. Spitting. (2.7904), (4.5962)
14. Verbally interrupting a student while he is talking to teacher or class. (2.8251), (3.3656)
15. Possessing alcohol on school property. (2.8273), (4.8933)

16. Sleeping in class. (2.8343), (4.2949)

17. Clicking pens or making other similar noises in class. (2.8509), (2.9483)

18. Reading, writing, etc. while teacher is talking. (2.8820), (3.3447)

19. Combing hair in class. (2.9530), (3.4397)

20. Wearing clothes too tight. (2.9649), (3.8699)

21. Doing wrong assignment. (2.9805), (3.7108)

APPENDIX B

DEMOGRAPHIC RANKINGS OF DISRUPTIVE BEHAVIORS

TABLE B1.--Showing disrespect for another student's opinion.

CATEGORY	FREQUENCY*	SERIOUSNESS
Sex	Male	Female
	Female	Male
Socio-Economic Status	Low	Middle
	Middle	High
	High	Low
Educational Level	Doctoral Degree	High School Degree
	Educational Specialist	Master's Degree
	Master's Degree	Bachelor's Degree and Some College
	Bachelor's Degree and Some College	Doctoral Degree
	High School Degree	Educational Specialist
Age	21 or under	over 60
	22-25	51-60
	26-30	41-50
	31-40	31-40
	41-50	26-30
	51-60	22-25
	over 60	21 or under

TABLE B1.--Continued.

CATEGORY	FREQUENCY*	SERIOUSNESS
Years Teaching Experience	0-1	over 20
	2-4	11-20
	5-10	5-10
	11-20	0-1
	over 20	2-4
Teaching The Same Group All Day	Yes	Yes
	No	No
Class Size	10 and under	10 and under
	11-16	28-34
	17-20	over 34
	21-27	17-20
	28-34	28-34
	over 34	11-16
Team Teaching	Yes	No
	No	Yes
Special Education	Yes	No
	No	Yes

TABLE B1.--Continued.

CATEGORY	FREQUENCY*	SERIOUSNESS
Teacher Classification	Special education K-6	Saftey/driver education
	Special education 7-12	Business education, vocational/distributive education
	Regular K-3	Regular K-3
	Regular 4-6	Regular K-6
	Foreign language, language arts, social studies, humanities	Home economics, home and family living
	Business education, vocational/distributive education	Art, music, industrial arts
	Math, Science	Foreign language, language arts, social studies, humanities
	Home economics, home and family living	Math, Science
	Art, music, industrial arts	Special education K-6
	Library	Special education K-12
	Health/physical education	Health/physical education
	Saftey/driver education	Library

*All categories are tied on the dimension of frequency; they have been reported sequentially merely for ease in reading.

TABLE B2.--Drawing picture to poke fun at another student.

CATEGORY	FREQUENCY*	SERIOUSNESS
Sex	Male	Female
	Female	Male
SES	Lower	Upper
	Middle	Middle
	Upper	Lower
Educational Level	Doctoral Degree	Educational Specialist
	Educational Specialist	Bachelor's Degree or Some College
	Master's Degree	Master's Degree
	Bachelor's Degree or Some College	High School Degree
	High School Degree	Doctoral Degree
Age	21 or under	21 or under
	22 - 25	Over 60
	26 - 30	51 - 60
	31 - 40	41 - 50
	41 - 50	22 - 35
	51 - 60	26 - 30
	Over 60	31 - 40

TABLE B2.--Continued.

CATEGORY	FREQUENCY*	SERIOUSNESS
Years Teaching	0 - 1 years 2 - 4 years 5 - 10 years 11 - 20 years Over 20 years	Over 20 years 0 - 1 years 11 - 20 years 5 - 10 years 2 - 4 years
Teach Same Group All Day	Yes No	Yes No
Class Size	10 and under 11 - 16 17 - 20 21 - 27 28 - 34 Over 34	10 and under 17 - 20 21 - 27 Over 34 28 - 34 11 - 16
Team Teaching	Yes No	No Yes
Special Education	Yes No	No Yes

TABLE B2.--Continued.

CATEGORY	FREQUENCY*	SERIOUSNESS
Teacher classification	Special Education K-6	Health/physical education
	Special Education 7-12	Home economics
	Regular K-3	Regular K-3
	Regular 4-6	Library & Safety/driver education
	Foreign language, language arts	Business education, vocational/distributive education
	Business education, vocational/distributive education	Special education 7-12
	Math, science	Art, music, industrial arts
	Home economics	Foreign language, language arts
	Art, music, industrial arts	Special education K-6
	Library	Math, science
	Health/physical education	Regular 4-6
	Safety/driver education	

*All categories are tied on the dimension of frequency; they have been reported sequentially merely for ease in reading.

TABLE B3.--Making noise in the halls.

CATEGORY	FREQUENCY	SERIOUSNESS
Sex	Male Female	Female Male
Socio-Economic Status	Low High Middle	Low Middle High
Educational Level	Doctoral Degree Educational Specialist Master's Degree Bachelor's Degree and Some College High School Degree	High School Degree Educational Specialist Bachelor's Degree and Some College Master's Degree Doctoral Degree
Age	26-30 22-25 31-40 41-50 21 or under 51-60 over 60	over 60 21 or under 51-60 22-25 41-50 31-40 26-30

TABLE B3.--Continued.

CATEGORY	FREQUENCY	SERIOUSNESS
Years Teaching Experience	0-1 2-4 5-10 11-20 over 20	0-1 over 20 11-20 5-10 2-4
Teaching The Same Group All Day	No Yes	Yes No
Class Size	over 34 28-34 21-27 11-16 17-20 10 and under	over 34 11-16 10 and under 28-34 21-27 17-20
Team Teaching	Yes No	No Yes
Special Education	Yes No	Yes No

TABLE B3.--Continued.

CATEGORY	FREQUENCY	SERIOUSNESS
Teacher Classification Code	Library	Regular 4-6
	Math, science	Regular K-3
	Foreign language, language arts, social studies, humanities	Library
	Special education K-6	Business education, vocational/destributive education
	Saftey/driver education	Home economics, home and family living
	Art, music, industrial arts	Special education K-6
	Health/physical education	Saftey/driver education
	Special education 7-12	Home economics, home and family living
	Home economics, home and family living	Math, science
	Business education, vocational/distributive education	Special education 7-12
	Regular 4-6	Foreign language, language arts, social studies, humanities
	Regular K-3	Health/physical education

TABLE B4.--Whispering, or nonverbally communicating at inappropriate times.

CATEGORY	FREQUENCY	SERIOUSNESS
Sex	Female Male	Male Female
SES	Lower Upper Middle	Upper Middle Lower
Educational Level	Bachelor's Degree or Some College Master's Degree Education Specialist Doctoral Degree High School Degree	High School Degree Doctoral Degree Education Specialist Bachelor's Degree or Some College Master's Degree
Age	22 - 25 21 or under 26 - 30 41 - 50 51 - 60 31 - 40 Over 60	21 or under Over 60 22 - 25 41 - 50 31 - 40 26 - 30 51 - 60

TABLE B4.--Continued.

CATEGORY	FREQUENCY	SERIOUSNESS
Years Teaching	0 - 1 years 2 - 4 years 5 - 10 years Over 20 years 11 - 20 years	0 - 1 years 2 - 4 years 11 - 20 years 5 - 10 years Over 20 years
Teach Same Group All Day	Yes No	No Yes
Class Size	Over 34 28 - 34 11 - 16 21 - 27 10 and under 17 - 20	Over 34 11 - 16 10 and under 17 - 20 21 - 27 28 - 34
Team Teaching	No Yes	No Yes
Special Education	No Yes	No Yes

TABLE B4.--Continued.

CATEGORY	FREQUENCY	SERIOUSNESS
Teacher Classification	Library	Library
	Safety/driver education	Business education, vocational/distributive education
	Math, science	Art, music, industrial arts
	Regular K-3	Home economics, home and family living
	Regular 4-6	Special education K-6
	Business education, vocational/distributive education	Health/physical education
	Home economics, home and family living	Math, science
	Special education K-6	Regular 4-6
	Special education 7-12	Regular K-3
	Art, music, industrial arts	Foreign language, language arts, social studies, humanities
	Foreign language, language arts, social studies, humanities	Special education 7-12
	Health/physical education	Safety/driver education

TABLE B5.--Smoking on school property.

CATEGORY	FREQUENCY	SERIOUSNESS
Sex	Male Female	Female Male
SES	Middle Lower Upper	Lower Middle Upper
Educational Level	Doctoral Degree High School Degree Educational Specialist Master's Degree Bachelor's Degree or Some College	Bachelor's Degree or Some College High School Degree Educational Specialist Master's Degree Doctoral Degree
Age	21 or under 26 - 30 31 - 40 22 - 25 41 - 50 Over 60 51 - 60	Over 60 51 - 60 22 - 25 41 - 50 21 or under 26 - 30 31 - 40

TABLE B5.--Continued.

CATEGORY	FREQUENCY	SERIOUSNESS
Years Teaching	5 - 10 years 2 - 4 years 0 - 1 years Over 20 years 11 - 20 years	Over 20 years 0 - 1 years 2 - 4 years 11 - 20 years 5 - 10 years
Teach Same Group All Day	No Yes	Yes No
Class Size	10 and under 11 - 16 17 - 20 28 - 34 21 - 27 Over 34	10 and under 28 - 34 21 - 27 11 - 16 17 - 20 Over 34
Team Teaching	Yes No	No Yes
Special Education	Yes No	Yes No

TABLE B5.--Continued.

CATEGORY	FREQUENCY	SERIOUSNESS
Teacher Classification	Special education 7-12	Regular K-3
	Home economics	Regular 4-6
	Health/physical education	Home economics
	Foreign language, language arts	Special education K-6
	Library	Library
	Math, science	Special education 7-12
	Regular K-3	Math, science
	Business education, vocational/distributive education	Foreign language, language arts
	Special education K-6	Health/physical education
	Safety/driver education	Art, music, industrial arts
	Regular 4-6	Business education, vocational/distributive education
	Art, music, industrial arts	Safety/driver education

TABLE B6.--Failing to follow directions for assignment.

CATEGORY	FREQUENCY	SERIOUSNESS
Sex	Female Male	Female Male
SES	Lower Upper Middle	Upper Middle Lower
Educational Level	Doctoral Degree High School Degree Master's Degree Bachelor's Degree or Some College Educational Specialist	High School Degree Master's Degree Bachelor's Degree or Some College Educational Specialist Doctoral Degree
Age	26-30 22-24 31-40 41-50 51-60 21 or under over 60	over 60 41-50 51-60 31-40 26-30 22-25 21 or under

TABLE B6.--Continued.

CATEGORY	FREQUENCY	SERIOUSNESS
Years Teaching	5-10 years 11-20 years over 20 years 2-4 years 0-1 years	over 20 years 11-20 years 5-10 years 2-4 years 0-1 years
Teach Same Group All Day	Yes No	No Yes
Class Size	17-20 11-16 10 and under over 34 21-27 28-34	17-20 10 and under over 34 21-27 28-34 11-16
Team Teaching	Yes No	No Yes
Special Education	Yes No	Yes No

TABLE B6.--Continued.

CATEGORY	FREQUENCY	SERIOUSNESS
Teacher Classification	Special education 7-12	Safety/driver education
	Regular K-3	Health/physical education
	Art, music, industrial arts	Library
	Foreign language, language arts, social studies, humanities	Foreign language, language arts, social studies, humanities
	Math, science	Home economics, home and family living
	Home economics, home and family living	Art, music, industrial arts
	Health/physical education	Special education K-6
	Special education K-6	Business education, vocational/distributive education
	Library	Math, science
	Regular 4-6	Regular 4-6
	Business education, vocational/distributive education	Regular K-3
	Safety/driver education	Special education 7-12

TABLE B7.--Turning in messy papers.

CATEGORY	FREQUENCY	SERIOUSNESS
Sex	Male	Male
	Female	Female
SES	Lower	Upper
	Upper	Middle
	Middle	Lower
Educational Level	Doctoral Degree	Master's Degree
	Bachelor's Degree or Some College	Educational Specialist
	Master's Degree	Bachelor's Degree or Some College
	Educational Specialist	Doctoral Degree
	High School Degree	High School Degree
Age	22 - 25	51 - 60
	41 - 50	41 - 50
	26 - 30	31 - 40
	31 - 40	Over 60
	51 - 60	26 - 30
	Over 60	22 - 25
	21 or under	Over 21

TABLE B7.--Continued.

CATEGORY	FREQUENCY	SERIOUSNESS
Years Teaching	2 - 4 years 5 - 10 years 0 - 1 years Over 20 years 11 - 20 years	Over 20 years 11 - 20 years 5 - 10 years 0 - 1 years 2 - 4 years
Teach Same Group All Day	No Yes	No Yes
Class Size	21 - 27 28 - 34 Over 34 10 and under 11 - 16 17 - 20	Over 34 10 and under 28 - 34 11 - 16 21 - 27 17 - 20
Team Teaching	No Yes	Yes No
Special Education	No Yes	Yes No

TABLE B7.--Continued.

CATEGORY	FREQUENCY	SERIOUSNESS
Teacher Classification	Library	Health/physical education
	Art, music, industrial arts	Safety/driver education
	Math, science	Library
	Regular 4-6	Art, music, industrial arts
	Business education, vocational/distributive education	Home economics, home and family living
	Foreign language, language arts, social studies, humanities	Business education, vocational/distributive education
	Special education 7-12	Special education 7-12
	Regular K-3	Special education K-3
	Home economics, home and family living	Foreign language, language arts, social studies, humanities
	Special education K-6	Math, science
	Health/physical education	Regular 4-6
	Safety/driver education	Regular K-3

TABLE B8.--Possessing brass knuckles, molotov cocktails, etc. on school property.

CATEGORY	FREQUENCY	SERIOUSNESS
Sex	Female	Female
	Male	Male
SES	Middle	Middle
	Lower	Upper
	Upper	Lower
Educational Level	Doctoral Degree	Doctoral Degree
	High School Degree	Bachelor's Degree or Some College
	Master's Degree	Master's Degree
	Bachelor's Degree or Some College	High School Degree
	Educational Specialist	Educational Specialist
Age	21 or under	21 or under
	22 - 25	Over 60
	31 - 40	51 - 60
	26 - 30	22 - 25
	41 - 50	26 - 30
	51 - 60	31 - 40
	Over 60	41 - 50

TABLE B8.--Continued.

CATEGORY	FREQUENCY	SERIOUSNESS
Years Teaching	0 - 1 years 2 - 4 years 5 - 10 years 11 - 20 years Over 20 years	Over 20 years 0 - 1 years 2 - 4 years 5 - 10 years 11 - 20 years
Teach Same Group All Day	Yes No	Yes No
Class Size	10 and under 21 - 27 28 - 34 17 - 20 11 - 16 Over 34	10 and under 21 - 27 28 - 34 17 - 20 Over 34 11 - 16
Team Teaching	Yes No	No Yes
Special Education	Yes No	No Yes

TABLE B8.--Continued.

CATEGORY	FREQUENCY	SERIOUSNESS
Teacher Classification	Foreign language, language arts	Safety/driver education
	Regular K-3	Regular 4-6
	Art, music, industrial arts	Regular K-3
	Special education 7-12	Math, science
	Math, science	Foreign language, language arts
	Home economics	Health/physical education
	Business education, vocational/distributive education	Home economics
	Health/physical education	Special education K-6
	Special education K-6	Business education, vocational/distributive education
	Regular 4-6	Art, music, industrial arts
	Library	Special education 7-12
	Safety/driver education	Library

TABLE B9.--Slouching or otherwise sitting inappropriately in seat.

CATEGORY	FREQUENCY	SERIOUSNESS
Sex	Male Female	Male Female
SES	Lower Upper Middle	Lower Middle Upper
Educational Level	Doctoral Degree Bachelor's degree or some college Master's Degree Educational Specialist High School Degree	High School Degree Educational Specialist Doctoral Degree Bachelor's Degree or Some College Master's Degree
Age	21 or under 22 - 25 26 - 30 31 - 40 41 - 50 51 - 60 Over 60	Over 60 51 - 60 41 - 50 21 or under 31 - 40 22 - 25 26 - 30

TABLE B9.--Continued.

CATEGORY	FREQUENCY	SERIOUSNESS
Years Teaching	0 - 1 years 2 - 4 years 11 - 20 years 5 - 10 years Over 20 years	0 - 1 years 5 - 10 years 2 - 4 years Over 20 years 11 - 20 years
Teach Same Group All Day	No Yes	Yes No
Class Size	Over 34 11 - 16 21 - 27 28 - 34 10 and under 17 - 20	Over 34 11 - 16 10 and under 28 - 34 21 - 27 17 - 20
Team Teaching	Yes No	No Yes
Special Education	Yes No	Yes No

TABLE B9.--Continued.

CATEGORY	FREQUENCY	SERIOUSNESS
Teacher Classification	Home Economics, home and family living	Safety/driver education
	Special education K-6	Regular 4-6
	Foreign language, language arts, social studies, humanities	Regular K-3
	Special education 7-12	Business education, vocational/distributive education
	Math, science	Home economics, home and family living
	Regular 4-6	Library
	Library	Health/physical education
	Art, music, industrial arts	Special education 7-12
	Business education, vocational/distributive education	Special education K-6
	Regular K-3	Art, music, industrial arts
	Safety/driver education	Math, science
	Health/physical education	Foreign language, language arts, social studies, humanities

TABLE B10.--Holding hands outside of class on school property.

CATEGORY	FREQUENCY	SERIOUSNESS
Sex	Female Male	Female Male
SES	Lower Middle Upper	Lower Middle Upper
Educational Level	Doctoral Degree Bachelor's Degree or Some College Educational Specialist Master's Degree High School Degree	Doctoral Degree Bachelor's Degree or Some College Educational Specialist High School Degree Master's Degree
Age	21 or under 22 - 25 26 - 30 31 - 40 41 - 50 51 - 60 Over 60	Over 60 51 - 60 41 - 50 21 or under 22 - 25 31 - 40 26 - 30

TABLE B10.--Continued.

CATEGORY	FREQUENCY	SERIOUSNESS
Years Teaching	0 - 1 years 2 - 4 years 5 - 10 years 11 - 20 years Over 20 years	Over 20 years 11 - 20 years 2 - 4 years 0 - 1 years 5 - 10 years
Teach Same Group All Day	Yes No	Yes No
Class Size	10 and under 21 - 27 28 - 34 Over 34 11 - 16 17 - 20	10 and under 28 - 34 Over 34 21 - 27 11 - 16 17 - 20
Team Teaching	Yes No	Yes No
Special Education	No Yes	Yes No

TABLE B10.--Continued.

CATEGORY	FREQUENCY	SERIOUSNESS
Teacher Classification	Regular K-3	Regular 4-6
	Home economics	Regular K-3
	Regular 4-6	Special education 7-12
	Foreign language, language arts	Special education K-6
	Library	Library
	Art, music, industrial arts	Art, music, industrial arts
	Math, science	Home economics
	Special education K-6	Math, science
	Business education, vocational/distributive education	Foreign language, language arts
	Special education 7-12	Health/physical education
	Health/physical education	Business education, vocational/distributive education
	Safety/driver education	Safety/driver education

TABLE B11.--Making allusions to sex (written or verbal).

CATEGORY	FREQUENCY	SERIOUSNESS
Sex	Male	Female
	Female	Male
SES	Upper	Middle
	Lower	Lower
	Middle	Upper
Educational Level	Doctoral Degree	High School Degree
	Master's Degree	Bachelor's Degree or Some College
	Bachelor's Degree or Some College	Educational Specialist
	Educational Specialist	Master's Degree
	High School Degree	Doctoral Degree
Age	21 or under	over 60
	22-25	51-60
	41-50	22-25
	26-30	41-50
	31-40	31-40
	51-60	26-30
	over 60	21 or under

TABLE B11.--Continued.

CATEGORY	FREQUENCY	SERIOUSNESS
Years Teaching	0-1 years 2-4 years 5-10 years 11-20 years over 20 years	over 20 years 11-20 years 2-4 years 5-10 years 0-1 years
Teach Same Group All Day	No Yes	Yes No
Class Size	11-16 21-27 over 34 17-20 28-34 10 and under	10 and under 21-27 28-34 over 34 17-20 11-16
Team Teaching	Yes No	No Yes
Special Education	Yes No	No Yes

TABLE B11.--Continued.

CATEGORY	FREQUENCY	SERIOUSNESS
Teacher Classification	Foreign language, language arts, social studies, humanities	Saftey/driver education
	Math, science	Regular K-3
	Regular K-3	Regular 4-6
	Special education K-6	Home economics, home and family living
	Special education 7-12	Special education 7-12
	Regular 4-6	Business education, vocational/distributive education
	Health/physical education	Art, music, industrial arts
	Art, music, industrial arts	Health/physical education
	Business education, vocational/distributive education	Math, science
	Home economics, home and family living	Foreign language, language arts, social studies, humanities
	Saftey/driver education	Library
	Library	Special education K-3

TABLE B12.--Chewing gum in class.

CATEGORY	FREQUENCY	SERIOUSNESS
Sex	Male Female	Female Male
SES	Upper Lower Middle	Lower Middle Upper
Educational Level	Doctoral Degree Master's Degree Educational Specialist Bachelor's Degree or Some College High School Degree	Doctoral Degree Educational Specialist Bachelor's Degree or Some College High School Degree Master's Degree
Age	26 - 30 31 - 40 22 - 25 41 - 50 21 or under 51 - 60 Over 60	Over 60 51 - 60 41 - 50 21 or under 22 - 25 31 - 40 26 - 30

TABLE B12.--Continued.

CATEGORY	FREQUENCY	SERIOUSNESS
Years Teaching	5 - 10 years 0 - 1 years 2 - 4 years 11 - 20 years Over 20 years	Over 20 years 11 - 20 years 2 - 4 years 0 - 1 years 5 - 10 years
Teach Same Group All Day	No Yes	Yes No
Class Size	11 - 16 Over 34 17 - 20 28 - 34 21 - 27 10 and under	Over 34 10 and under 28 - 34 11 - 16 21 - 27 17 - 20
Team Teaching	No Yes	Yes No
Special Education	Yes No	Yes No

TABLE B12.--Continued.

CATEGORY	FREQUENCY	SERIOUSNESS
Teacher Classification	Library	Safety/driver education
	Special education 7-12	Regular 4-6
	Home economics	Health/physical education
	Math, science	Regular K-3
	Business education, vocational/distributive education	Special education K-6
	Foreign language, language arts	Home economics
	Health/physical education	Special education 7-12
	Art, music, industrial arts	Art, music, industrial arts
	Special education K-6	Foreign language, language arts
	Regular 4-6	Business education, vocational/distributive education
	Safety/driver education	Library
	Regular K-3	Math, science

TABLE B13.--Spitting.

CATEGORY	FREQUENCY	SERIOUSNESS
Sex	Male Female	Male Female
SES	Upper Middle Lower	Upper Middle Lower
Educational Level	Doctoral Degree Educational Specialist Master's Degree High School Degree Bachelor's Degree or Some College	Master's Degree Educational Specialist Bachelor's Degree or Some College High School Degree Doctoral Degree
Age	41 - 50 31 - 40 22 - 25 Over 60 26 - 30 21 or under 51 - 60	Over 60 22 - 25 21 or under 26 - 30 31 - 40 41 - 50 51 - 60

TABLE B13.--Continued.

CATEGORY	FREQUENCY	SERIOUSNESS
Years Teaching	2 - 4 years 11 - 20 years 0 - 1 years 5 - 10 years Over 20 years	0 - 1 years 2 - 4 years 11 - 20 years 5 - 10 years Over 20 years
Teach Same Group All Day	No Yes	No Yes
Class Size	10 and under 17 - 20 11 - 16 28 - 34 Over 34 21 - 27	17 - 20 21 - 27 28 - 34 11 - 16 10 and under Over 34
Team Teaching	Yes No	Yes No
Special Education	Yes No	No Yes

TABLE B13.--Continued.

CATEGORY	FREQUENCY	SERIOUSNESS
Teacher Classification	Special Education 7-12	Library
	Home economics	Home economics
	Special education K-6	Business education/ vocational/distributive education
	Foreign language, language arts	Math, science
	Math, science	Art, music, industrial arts
	Library	Foreign language, language arts
	Regular 4-6	Special education K-6
	Business education, vocational/ distributive education	Regular 4-6
	Health/physical education	Safety/driver education
	Regular K-3	Special education 7-12
	Art, music, industrial arts	Regular K-3
	Safety/driver education	Health/ physical education

TABLE B14.--Verbally interrupting a student while he is talking to teacher or class.

CATEGORY	FREQUENCY	SERIOUSNESS
Sex	Female Male	Male Female
SES	Lower Middle Upper	Middle Lower Upper
Educational Level	Doctoral Degree Educational Specialist Bachelor's Degree or Some College High School Degree Master's Degree	Doctoral Degree High School Degree Bachelor's Degree or Some College Educational Specialist Master's Degree
Age	21 or under 22 - 25 41 - 50 51 - 60 26 - 30 31 - 40 Over 60	22 - 25 26 - 30 Over 60 21 or under 41 - 50 31 - 40 51 - 60

TABLE B14.--Continued.

CATEGORY	FREQUENCY	SERIOUSNESS
Years Teaching	0 - 1 years 2 - 4 years 11 - 20 years 5 - 10 years Over 20 years	0 - 1 years 2 - 4 years 5 - 10 years 11 - 20 years Over 20 years
Teach Same Group All Day	Yes No	No Yes
Class Size	10 and under 11 - 16 21 - 27 Over 34 28 - 34 17 - 20	11 - 16 Over 34 28 - 34 10 and under 21 - 27 17 - 20
Team Teaching	Yes No	No Yes
Special Education	Yes No	No Yes

TABLE B14.--Continued.

CATEGORY	FREQUENCY	SERIOUSNESS
Teacher Classification	Regular K-3	Safety/driver education
	Special education K-6	Library
	Regular 7-12	Art, music, industrial arts
	Special education 7-12	Business education, vocational/distributive education
	Library	Regular 4-6
	Foreign language, language arts, social studies, humanities	Foreign language, language arts, social studies, humanities
	Math, science	Special K-6
	Health/physical education	Home economics, home and family living
	Art, music, industrial arts	Health/physical education
	Home economics, home and family living	Regular K-3
	Business education, vocational/distributive education	Math, science
	Safety/driver education	Special education 7-12

TABLE B15.--Possessing alcohol on school property.

CATEGORY	FREQUENCY	SERIOUSNESS
Sex	Female	Female
	Male	Male
SES	Lower	Lower
	Middle	Upper
	Upper	Middle
Educational Level	Doctoral Degree	Doctoral Degree
	Bachelor's Degree or Some College	Bachelor's Degree or Some College
	Master's Degree	Educational Specialist
	Educational Specialist	Master's Degree
	High School Degree	High School Degree
Age	21 or under	over 60
	22-25	21 or under
	51-60	51-60
	31-40	22-25
	26-30	41-50
	41-50	26-30
	over 60	31-40

TABLE B15.--Continued.

CATEGORY	FREQUENCY	SERIOUSNESS
Years Teaching	0-1 years	over 20 years
	2-4 years	0-1 years
	5-10 years	2-4 years
	11-20 years	11-20 years
	over 20 years	5-10 years
Teach Same Group All Day	Yes	Yes
	No	No
Class Size	over 34	10 and under
	10 and under	28-34
	28-34	17-20
	11-16	over 34
	21-27	21-27
	17-20	11-16
Team Teaching	Yes	No
	No	Yes
Special Education	Yes	No
	No	Yes

TABLE B15.--Continued.

CATEGORY	FREQUENCY	SERIOUSNESS
Teacher Classification	Art, music, industrial arts	Saftey/driver education
	Regular K-3	Regular K-3
	Special education K-6	Regular 4-6
	Regular 4-6	Special education K-6
	Foreign language, language arts, social studies, humanities	Home economics, home and family living
	Special education K-6	Foreign language, language arts, social studies, humanities
	Saftey/driver education	Health/physical education
	Home economics, home and family living	Special education 7-12
	Math, science	Math, science
	Business education, vocational/distributive education	Art, music, industrial arts
	Health/physical education	Business education, vocational/distributive education
	Library	Library

TABLE B16.--Sleeping in class.

CATEGORY	FREQUENCY	SERIOUSNESS
Sex	Male	Female
	Female	Male
SES	Upper	Middle
	Lower	Lower
	Middle	Upper
Educational Level	High School Degree	Bachelor's Degree or Some
	Master's Degree	High School Degree
	Educational Specialist	Educational Specialist
	Bachelor s Degree or Some College	Master's Degree
	Doctoral Degree	Doctoral Degree
Age	21 or under	Over 60
	31 - 40	51 - 60
	22 - 25	21 or under
	41 - 50	22 - 25
	26 - 30	41 - 50
	Over 60	26 - 30
	51 - 60	31 - 40

TABLE B16.--Continued.

CATEGORY	FREQUENCY	SERIOUSNESS
Years Teaching	2 - 4 years 0 - 1 years 11 - 20 years 5 - 10 years Over 20 years	Over 20 years 2 - 4 years 0 - 1 years 11 - 20 years 5 - 10 years
Teach Same Group All Day	No Yes	Yes No
Class Size	10 and under 17 - 20 21 - 27 28 - 34 Over 34 11 - 16	10 and under Over 34 21 - 27 28 - 34 17 - 20 11 - 16
Team Teaching	Yes No	Yes No
Special Education	No Yes	No Yes

TABLE B16.--Continued.

CATEGORY	FREQUENCY	SERIOUSNESS
Teacher Classification	Home Economics	Regular 4-6
	Special Education 7 - 12	Health/Physical Education
	Foreign language, language arts	Regular K-3
	Math, science	Library
	Art, music, industrial arts	Art, music, industrial arts
	Special Education K-6	Home Economics
	Regular K-3	Special education K-6
	Business education, vocational/distributive education	Safety/Driver education
	Regular 4 - 6	Special Education 7-12
	Health/Physical Education	Math, Science
	Library	Business Education, Vocational/distributive education
	Safety/Driver Education	Foreign language, language arts

TABLE B17.--Clicking pens or making other similar noises in class.

CATEGORY	FREQUENCY	SERIOUSNESS
Sex	Male Female	Male Female
SES	Upper Middle Lower	Middle Upper Lower
Educational Level	Doctoral Degree High School Degree Master's Degree Bachelor's Degree or Some College Educational Specialist	Master's Degree Bachelor's Degree or Some College Educational Specialist High School Degree Doctoral Degree
Age	26 - 30 21 or under 31 - 40 22 - 25 Over 60 41 - 50 51 - 60	Over 60 31 - 40 41 - 50 51 - 60 26 - 30 22 - 25 21 or under

TABLE B17.--Continued.

CATEGORY	FREQUENCY	SERIOUSNESS
Years Teaching	5 - 10 years 2 - 4 years 0 - 1 years 11 - 20 years Over 20 years	Over 20 years 11 - 20 years 2 - 4 years 5 - 10 years 0 - 1 years
Teach Same Group All Day	Yes No	No Yes
Class Size	11 - 16 17 - 20 28 - 34 10 or under 21 - 27 Over 34	17 - 20 Over 34 11 - 16 10 or under 21 - 27 28 - 34
Team Teaching	Yes No	No Yes
Special Education	No Yes	No Yes

TABLE B17.--Continued.

CATEGORY	FREQUENCY	SERIOUSNESS
Teacher Classification	Safety/driver education	Safety/driver education
	Foreign language, language arts	Health/physical education
	Math, science	Library
	Home economics	Business education, vocational/distributive education
	Business education, vocational/distributive education	Home economics
	Art, music, industrial arts	Art, music, industrial arts
	Library	Special education K-6
	Regular 4-6	Special education 7-12
	Special education 7-12	Math, science
	Regular K-3	Regular 4-6
	Special education K-6	Foreign language, language arts
	Health/physical education	Regular K-3

TABLE B18.--Reading, writing, etc. while teacher is talking.

CATEGORY	FREQUENCY	SERIOUSNESS
Sex	Female Male	Female Male
SES	Lower Upper Middle	Lower Middle Upper
Educational Level	Doctoral Degree Educational Specialist Bachelor's Degree or Some College Master's Degree High School Degree	Educational Specialist Bachelor's Degree or Some College Master's Degree High School Degree Doctoral Degree
Age	21 or under 22 - 25 31 - 40 26 - 30 41 - 50 51 - 60 Over 60	51 - 60 Over 60 41 - 50 26 - 30 22 - 25 31 - 40 21 or under

TABLE B18.--Continued.

CATEGORY	FREQUENCY	SERIOUSNESS
Years Teaching	0 - 1 years 5 - 10 years 2 - 4 years 11 - 20 years Over 20 years	Over 20 years 0 - 1 years 5 - 10 years 11 - 20 years 2 - 4 years
Teach Same Group All Day	Yes No	Yes No
Class Size	28 - 34 11 - 16 21 - 27 17 - 20 10 and under Over 34	Over 34 28 - 34 11 - 16 21 - 27 17 - 20 10 and under
Team Teaching	Yes No	No Yes
Special Education	No Yes	No Yes

TABLE B18.--Continued.

CATEGORY	FREQUENCY	SERIOUSNESS
Teacher Classification	Foreign language, language arts	Safety/driver education & Business, vocational/ distributive education
	Home economics	Regular 4-6
	Math, science	Regular K-3
	Regular 4-6	Library
	Special education K-6	Math, science
	Business education, vocational/distributive education	Art, music, industrial arts
	Regular K-3	Special education K-6
	Special education 7-12	Home economics
	Art, music, industrial arts	Health/physical education
	Safety/driver education	Foreign language, language arts
	Health/physical education	Special education 7-12
	Library	

TABLE B19.--Combing hair in class.

CATEGORY	FREQUENCY	SERIOUSNESS
Sex	Male	Female
	Female	Male
SES	Upper	Middle
	Lower	Lower
	Middle	Upper
Educational Level	Doctoral Degree	High School Degree
	Master's Degree	Doctoral Degree
	Bachelor's Degree or Some College	Bachelor's Degree or Some College
	Educational Specialist	Educational Specialist
	High School Degree	Master's Degree
Age	26-30	21 or under
	41-50	over 60
	22-25	51-60
	31-40	41-50
	51-50	31-40
	over 60	22-25
	21 or under	26-30

TABLE B19.--Continued.

CATEGORY	FREQUENCY	SERIOUSNESS
Years Teaching	5-10 years	over 20 years
	2-4 years	5-10 years
	0-1 years	11-20 years
	over 20 years	2-4 years
	11-20 years	0-1 years
Teach Same Group All Day	No	Yes
	Yes	No
Class Size	10 and under	10 and under
	17-20	over 34
	over 34	17-20
	11-16	21-27
	21-27	28-34
	28-34	11-16
Team Teaching	Yes	No
	No	Yes
Special Education	Yes	Yes
	No	No

TABLE B19.--Continued.

CATEGORY	FREQUENCY	SERIOUSNESS
Teacher Classification	Special education 7-12	Saftey/driver education
	Art, music, industrial arts	Regular K-3
	Math, science	Regular 4-6
	Foreign language, language arts, social studies, humanities	Special education K-6
	Health/physical education	Special education 7-12
	Special education K-6	Art, music, industrial arts
	Saftey/driver education	Health/physical education
	Business education, vocational/distributive education	Math, science
	Regular K-3	Business education, vocational/distributive education
	Regular 4-6	Foreign language, language arts, social studies, humanities
	Home economics, home and family living	Library
	Library	Home economics, home and family living

TABLE B20.--Wearing clothes too tight.

CATEGORY	FREQUENCY	SERIOUSNESS
Sex	Female Male	Female Male
SES	Middle Lower Upper	Middle Lower Upper
Educational Level	Doctoral Degree Bachelor's Degree or Some College Master's Degree Educational Specialist High School Degree	Doctoral Degree High School Degree Bachelor's Degree or Some College Educational Specialist Master's Degree
Age	31 - 40 22 - 25 41 - 50 Over 60 26 - 30 21 or under 51 - 60	21 or under Over 60 22 - 25 51 - 60 26 - 30 31 - 40 41 - 50

TABLE B20.--Continued.

CATEGORY	FREQUENCY	SERIOUSNESS
Years Teaching	2 - 4 years 0 - 1 years 5 - 10 years 11 - 20 years Over 20 years	0 - 1 years Over 20 years 2 - 4 years 11 - 20 years 5 - 10 years
Teach Same Group All Day	Yes No	Yes No
	10 and under Over 34 28 - 34 21 - 27 11 - 16 17 - 20	10 and under 28 - 34 21 - 27 Over 34 17 - 20 11 - 16
Team Teaching	Yes No	Yes No
Special Education	Yes No	Yes No

TABLE B20.--Continued.

CATEGORY	FREQUENCY	SERIOUSNESS
Teacher Classification	Regular K-3	Regular K-3
	Math, science	Regular 4-6
	Regular 4-6	Safety/driver education
	Health/physical education	Special education K-6
	Business education, vocational/distributive education	Art, music, industrial arts
	Special education K-6	Math, science
	Foreign language, language arts, social studies, humanities	Foreign language, language arts, social studies, humanities
	Safety/driver education	Business education, vocational/distributive education
	Special education 7-12	Special education 7-12
	Art, music, industrial arts	Health/physical education
	Home economics, home and family living	Home economics, home and family living
	Library	Library

TABLE B21.--Doing wrong assignment.

CATEGORY	FREQUENCY	SERIOUSNESS
Sex	Male Female	Female Male
SES	Upper Lower Middle	Middle Lower Upper
Educational Level	Doctoral Degree Educational Specialist Master's Degree High School Degree Bachelor's Degree or Some College	Educational Specialist Master's Degree Bachelor's Degree or some College High School Degree Doctoral Degree
Age	21 or under 31 - 40 22 - 25 41 - 50 51 - 60 26 - 30 Over 60	21 or under Over 60 51 - 60 41 - 50 22 - 25 26 - 30 31 - 40

TABLE B21.--Continued.

CATEGORY	FREQUENCY	SERIOUSNESS
Years Teaching	2 - 4 years	Over 20 years
	0 - 1 years	11 - 20 years
	Over 20 years	2 - 4 years
	11 - 20 years	0 - 1 years
	5 - 10 years	5 - 10 years
Teach Same Group All Day	No	Yes
	Yes	No
Class Size	11 - 16	17 - 20
	10 and under	10 and under
	17 - 20	21 - 27
	28 - 34	11 - 16
	21 - 27	Over 34
	Over 34	28 - 34
Team Teaching	Yes	No
	No	Yes
Special Education	Yes	No
	No	Yes

TABLE B21.--Continued.

CATEGORY	FREQUENCY	SERIOUSNESS
Teacher Classification	Safety/driver education	Library & Safety/driver education
	Special Education 7 - 12	Health/physical education
	Home economics	Home economics
	Foreign language, language arts	Art, music, industrial arts
	Business education, vocational education, distributive education	Special education 7-12
	Special education K-6	Regular K-3
	Math, science	Special education K-6
	Art, music, industrial arts	Business education, vocational/distributive education
	Health/physical education	Math, science
	Regular K-3	Regular 4-6
	Library	Foreign language, language arts

APPENDIX C

ANALYSIS OF VARIANCE ON DEMOGRAPHIC VARIABLES

TABLE C1.1.--Analysis of variance--sex (frequency--red form).

SOURCE	SS	df(adjusted)	MS	F	$F_{(.05)}$	$F_{(.01)}$
GROUPS	324.35233	1	324.35233	65.62265	3.8415	6.6349
SUBJECTS	7858.87552	(1590)	4.94269	--	--	--
ITEMS	54315.46796	65	989.46873	1735.05774	1.3100[x]	1.4606[x]
GROUPS X ITEMS	1039.93631	65	15.99902	28.05467	1.3100[x]	1.4606[x]
ITEMS X SUBJECTS-WITHIN GROUPS	56637.0701	(99.315)	.57028	--	--	--

[x]linear interpolation

$F_{\alpha,60,\infty}$ and $F_{\alpha,120,\infty}$

TABLE C1.2.--Analysis of variance--socio-economic status (frequency--red form).

SOURCE	SS	df(adjusted)	MS	F	$F_{(.05)}$	$F_{(.01)}$
GROUPS	117.30856	2	58.65428	11.53753	2.9957	4.6052
SUBJECTS	7996.78366	(1573)	5.08378	--	--	--
ITEMS	63639.86548	65	979.07485	1674.16704	1.3100	1.4606
GROUPS X ITEMS	252.96097	130	1.94585	3.36164	1.2214[x]	1.3246[x]
ITEMS X SUBJECTS-WITHIN GROUPS	56884.52298	(98,273)	.57884	--	--	--

[x]conservative value $F_{\alpha,120,\infty}$ used in place of $F_{\alpha,\infty,\infty}$

TABLE C1.3.--Analysis of variance--educational level (frequency--red form).

SOURCE	SS	df(adjusted)	MS	F	$F_{(.05)}$	$F_{(.01)}$
GROUPS	86.92545	4	21.73136	4.29633	2.3719	3.3192
SUBJECTS	7860.32013	1554	5.05812	--	--	--
ITEMS	63015.25974	65	969.46553	1686.40828	1.3100	1.4606
GROUPS X ITEMS	415.83408	260	1.59936	2.78212	1.0000[x]	1.0000[x]
ITEMS X SUBJECTS-WITHIN GROUPS	55809.59799	(97,082)	.57487	--	--	--

[x] $F_{\alpha,120,\infty}$ = 1.2214, 1.3246
no difference in decision

TABLE C1.4.--Analysis of variance--age (frequency--red form).

SOURCE	SS	df(adjusted)	MS	F	$F_{(.05)}$	$F_{(.01)}$
GROUPS	164.45135	6	27.40856	5.42000	2.0986	2.8020
SUBJECTS	8005.11465	1583	5.05693	--	--	--
ITEMS	64163.87616	65	987.13655	1725.00926	1.3100	1.4606
GROUPS X ITEMS	1032.59991	390	2.64769	4.62681	1.0000	1.0000
ITEMS X SUBJECTS-WITHIN GROUPS	56612.27728	(98,929)	.57225	--	--	--

TABLE C1.5.--Analysis of variance--years of teaching experience (frequency--red form).

SOURCE	SS	df(adjusted)	MS	F	$F_{(.05)}$	$F_{(.01)}$
GROUPS	49.19934	4	12.29984	2.40316	2.3719	3.3192
SUBJECTS	8117.46103	1586	5.11820	--	--	--
ITEMS	64224.44922	65	988.06844	1720.68411	1.3100	1.4606
GROUPS X ITEMS	745.37656	260	2.86683	4.99248	1.0000	1.0000
ITEMS X SUBJECTS-WITHIN GROUPS	56888.56699	(99,070)	.57423	--	--	--

TABLE C1.6.--Analysis of variance--teaching the same group all day (frequency--red form).

SOURCE	SS	df(adjusted)	MS	F	$F_{(.05)}$	$F_{(.01)}$
GROUPS	125.83603	1	125.83603	24.89658	3.8415	6.6349
SUBJECTS	8036.41150	1590	5.05435	--	--	--
ITEMS	64315.07483	65	989.46267	1744.43798	1.3100	1.4606
GROUPS X ITEMS	1377.25058	65	21.18847	37.35560	1.3100	1.4606
ITEMS X SUBJECTS-WITHIN GROUPS	56332.56439	(99,315)	.56721	--	--	--

TABLE C1.7.--Analysis of variance--class size (frequency--red form).

SOURCE	SS	df(adjusted)	MS	F	$F_{(.05)}$	$F_{(.01)}$
GROUPS	87.57321	5	17.51464	3.44814	2.2141	3.0173
SUBJECTS	8020.44141	1579	5.07944	--	--	--
ITEMS	64106.99112	65	986.26138	1708.37397	1.3100	1.4606
GROUPS X ITEMS	465.78595	325	1.43319	2.48253	1.0000	1.0000
ITEMS X SUBJECTS-WITHIN GROUPS	56926.38730	((8,607)	.57731	--	--	--

TABLE C1.8.--Analysis of variance--team teaching (frequency--red form).

SOURCE	SS	df(adjusted)	MS	F	$F_{(.05)}$	$F_{(.01)}$
GROUPS	28.26764	1	28.26764	5.32520	3.8415	6.6349
SUBJECTS	8141.58502	1590	5.12049	--	--	--
ITEMS	64312.66861	65	989.42565	1705.25947	1.3100	1.4606
GROUPS X ITEMS	48.12085	65	.74032	1.27593	1.3100	1.4606
ITEMS X SUBJECTS-WITHIN GROUPS	57624.65298	(99,315)	.58022	--	--	--

TABLE C1.9.--Analysis of variance--special education class (frequency--red form).

SOURCE	SS	df(adjusted)	MS	F	$F_{(.05)}$	$F_{(.01)}$
GROUPS	.94409	1	.94409	.18183	3.8415	6.6349
SUBJECTS	8168.17291	1590	5.13722	--	--	--
ITEMS	64310.69885	65	989.39534	1707.50265	1.3100	1.4606
GROUPS X ITEMS	128.36215	65	1.97480	3.40812	1.3100	1.4606
ITEMS X SUBJECTS-WITHIN GROUPS	57546.79211	(99,315)	.57944	--	--	--

TABLE C1.10.--Analysis of variance--teacher classification (frequency--red form).

SOURCE	SS	df(adjusted)	MS	F	$F_{(.05)}$	$F_{(.01)}$
GROUPS	389.17145	11	35.37922	7.18739	1.7879	2.2467
SUBJECTS	7777.38733	1580	4.92240	--	--	--
ITEMS	64345.99707	65	989.93889	1801.42738	1.3100	1.4606
GROUPS X ITEMS	3537.78815	715	4.94796	9.00399	1.0000	1.0000
ITEMS X SUBJECTS-WITHIN GROUPS	54219.02795	(98,665)	.54953	--	--	--

TABLE C2.1.--Analysis of variance--sex (seriousness--red form).

SOURCE	SS	df(adjusted)	MS	F	$F_{(.05)}$	$F_{(.01)}$
GROUPS	399.95483	1	399.95483	64.14539	3.8415	6.6349
SUBJECTS	9913.85275	1590	6.23513	--	--	--
ITEMS	51608.47409	65	793.97651	1163.31850	1.3100	1.4606
GROUPS X ITEMS	1542.58848	65	23.73367	34.77410	1.3100	1.4606
ITEMS X SUBJECTS-WITHIN GROUPS	67280.21948	(98,577)	.68251	--	--	--

TABLE C2.2.--Analysis of variance--socio-economic class (seriousness--red form).

SOURCE	SS	df(adjusted)	MS	F	$F_{(.05)}$	$F_{(.01)}$
GROUPS	93.26422	2	46.63211	7.22743	2.9957	4.6052
SUBJECTS	10149.15097	1573	6.45210	--	--	--
ITEMS	50987.86676	65	784.42870	1126.95557	1.3100	1.4606
GROUPS X ITEMS	297.72278	130	2.29018	3.29020	1.2214	1.3246
ITEMS X SUBJECTS-WITHIN GROUPS	67904.25974	(97,555)	.69606	--	--	--

TABLE C2.3.--Analysis of variance--educational level (seriousness--red form).

SOURCE	SS	df(adjusted)	MS	F	$F_{(.05)}$	$F_{(.01)}$
GROUPS	103.07816	4	25.76954	3.99682	2.3719	3.3192
SUBJECTS	10019.42337	1554	6.44751	--	--	--
ITEMS	50665.11697	65	779.46332	1131.56564	1.3100	1.4606
GROUPS X ITEMS	694.42978	260	2.67088	3.87742	1.0000	1.0000
ITEMS X SUBJECTS-WITHIN GROUPS	66398.18854	(96,393)	.68883	--	--	--

TABLE C2.4.--Analysis of variance--age (seriousness--red form).

SOURCE	SS	df(adjusted)	MS	F	$F_{(.05)}$	$F_{(.01)}$
GROUPS	166.85461	6	27.80910	4.34983	2.0986	2.8020
SUBJECTS	10120.35245	1583	6.39315	--	--	--
ITEMS	51406.53098	65	790.86969	1151.74638	1.3100	1.4606
GROUPS X ITEMS	1395.39417	390	3.57793	5.21055	1.0000	1.0000
ITEMS X SUBJECTS-WITHIN GROUPS	67425.39780	(98,192)	.68667	--	--	--

TABLE C2.5.--Analysis of variance--years teaching experience (seriousness--red form).

SOURCE	SS	df(adjusted)	MS	F	$F_{(.05)}$	$F_{(.01)}$
GROUPS	63.86166	4	15.96542	2.47562	2.3719	3.3192
SUBJECTS	10228.20627	1586	6.44906	--	--	--
ITEMS	51488.98657	65	792.13824	1148.45918	1.3100	1.4606
GROUPS X ITEMS	970.36398	260	3.73217	5.41098	1.0000	1.0000
ITEMS X SUBJECTS-WITHIN GROUPS	67823.06000	(98,332)	.68974	--	--	--

TABLE C2.6.--Analysis of variance--teaching the same group all day (seriousness--red form).

SOURCE	SS	df(adjusted)	MS	F	$F_{(.05)}$	$F_{(.01)}$
GROUPS	89.01163	1	89.01163	13.87248	3.8415	6.6349
SUBJECTS	10202.11145	1590	6.41642	--	--	--
ITEMS	51596.35300	65	793.79003	1174.74956	1.3100	1.4606
GROUPS X ITEMS	2250.7713	65	34.62725	51.24573	1.3100	1.4606
ITEMS X SUBJECTS-WITHIN GROUPS	66609.76355	(98,577)	.67571	--	--	--

TABLE C2.7.--Analysis of variance--class size (seriousness--red form).

SOURCE	SS	df(adjusted)	MS	F	$F_{(.05)}$	$F_{(.01)}$
GROUPS	99.96234	5	19.99247	3.11420	2.2141	3.0173
SUBJECTS	10136.83322	1579	6.41978	--	--	--
ITEMS	51506.16141	65	792.40246	1142.86069	1.3100	1.4606
GROUPS X ITEMS	632.07510	325	1.94485	2.80500	1.0000	1.0000
ITEMS X SUBJECTS-WITHIN GROUPS	67856.89716	(97,868)	.69335	--	--	--

TABLE C2.8.--Analysis of variance--team teaching (seriousness--red form).

SOURCE	SS	df(adjusted)	MS	F	$F_{(.05)}$	$F_{(.01)}$
GROUPS	15.99396	1	15.99396	2.47054	3.8415	6.6349
SUBJECTS	10293.44202	1590	6.47386	--	--	--
ITEMS	51622.53503	65	794.19283	1139.05230	1.3100	1.4606
GROUPS X ITEMS	68.94348	65	1.06067	1.52124	1.3100	1.4606
ITEMS X SUBJECTS-WITHIN GROUPS	68731.47043	(98,577)	.69724	--	--	--

TABLE C2.9.--Analysis of variance--special education class (seriousness--red form).

SOURCE	SS	df(adjusted)	MS	F	$F_{(.05)}$	$F_{(.01)}$
GROUPS	5.35205	1	5.35205	.82564	3.8415	6.6349
SUBJECTS	10306.89450	1590	6.48232	--	--	--
ITEMS	51609.66296	65	793.99479	1140.46939	1.3100	1.4606
GROUPS X ITEMS	172.55936	65	2.65476	3.81321	1.3100	1.4606
ITEMS X SUBJECTS-WITHIN GROUPS	68628.84879	(98,577)	.69620	--	--	--

TABLE C2.10.--Analysis of variance--teacher classification (seriousness--red form).

SOURCE	SS	df(adjusted)	MS	F	$F_{(.05)}$	$F_{(.01)}$
GROUPS	521.69897	11	47.42718	7.67248	1.7879	2.2467
SUBJECTS	9766.71823	1580	6.18147	--	--	--
ITEMS	51524.85318	65	792.69003	1253.20542	1.3100	1.4606
GROUPS X ITEMS	6006.44739	715	8.40063	13.28100	1.0000	1.0000
ITEMS X SUBJECTS-WITHIN GROUPS	62942.09549	(97,927)	.63253	--	--	--

TABLE C3.1.--Analysis of variance--sex (frequency--green form).

SOURCE	SS	df(adjusted)	MS	F	$F_{(.05)}$	$F_{(.01)}$
GROUPS	280.54233	1	280.54233	53.54140	3.8415	6.6349
SUBJECTS	8388.80298	1601	5.23973	--	--	--
ITEMS	56987.5900	65	876.73213	1439.83861	1.3100	1.4606
GROUPS X ITEMS	903.46713	65	13.89949	22.82684	1.3100	1.4606
ITEMS X SUBJECTS-WITHIN GROUPS	60081.59341	(96,671)	.60891	--	--	--

TABLE C3.2.--Analysis of variance--socio-economic status (frequency--green form).

SOURCE	SS	df(adjusted)	MS	F	$F_{(.05)}$	$F_{(.01)}$
GROUPS	34.28049	2	17.14024	3.19234	2.9957	4.6052
SUBJECTS	8520.88608	1587	5.36918	--	--	--
ITEMS	56490.43091	65	869.08353	1408.60891	1.3100	1.4606
GROUPS X ITEMS	193.07846	130	1.48522	2.40724	1.2214	1.3246
ITEMS X SUBJECTS-WITHIN GROUPS	60363.92343	(97,837)	.61698	--	--	--

TABLE C3.3.--Analysis of variance--educational level (frequency--green form).

SOURCE	SS	df(adjusted)	MS	F	$F_{(.05)}$	$F_{(.01)}$
GROUPS	307.81668	4	76.95417	14.30410	2.3719	3.3192
SUBJECTS	8381.83664	1558	5.37987	--	--	--
ITEMS	55478.48734	65	853.51517	1390.08985	1.3100	1.4606
GROUPS X ITEMS	631.77316	260	2.42990	3.95749	1.0000	1.0000
ITEMS X SUBJECTS-WITHIN GROUPS	58961.85953	(96,029)	.61400	--	--	--

TABLE C3.4.--Analysis of variance--age (frequency--green form).

SOURCE	SS	df(adjusted)	MS	F	$F_{(.05)}$	$F_{(.01)}$
GROUPS	274.43048	6	45.73841	8.69418	2.0986	2.8020
SUBJECTS	8390.98688	1595	5.26081	--	--	--
ITEMS	56828.46469	65	874.28405	1434.82850	1.3100	1.4606
GROUPS X ITEMS	1090.88947	390	2.79715	4.59053	1.0000	1.0000
ITEMS X SUBJECTS-WITHIN GROUPS	59885.67877	(98,281)	.60933	--	--	--

TABLE C3.5.--Analysis of variance--years teaching experience (frequency--green form).

SOURCE	SS	df(adjusted)	MS	F	$F_{(.05)}$	$F_{(.01)}$
GROUPS	174.86465	4	43.71616	8.25890	2.3719	3.3192
SUBJECTS	8453.26657	1597	5.29322	--	--	--
ITEMS	56860.87564	65	874.78268	1430.97343	1.3100	1.4606
GROUPS X ITEMS	801.53540	260	3.08283	5.04291	1.0000	1.0000
ITEMS X SUBJECTS-WITHIN GROUPS	60166.03683	(98,420)	.61132	--	--	--

TABLE C3.6.--Analysis of variance--teaching the same group all day (frequency--green form).

SOURCE	SS	df(adjusted)	MS	F	$F_{(.05)}$	$F_{(.01)}$
GROUPS	110.35422	1	110.35422	20.69854	3.8415	6.6349
SUBJECTS	8535.72702	1601	5.33150	--	--	--
ITEMS	56959.37930	65	876.29812	1460.27782	1.3100	1.4606
GROUPS X ITEMS	1816.19037	65	27.94139	46.56200	1.3100	1.4606
ITEMS X SUBJECTS-WITHIN GROUPS	59211.79651	(98,671)	.60009	--	--	--

TABLE C3.7.--Analysis of variance--class size (frequency--green form).

SOURCE	SS	df(adjusted)	MS	F	$F_{(.05)}$	$F_{(.01)}$
GROUPS	77.63669	5	15.52734	2.89716	2.2141	3.0173
SUBJECTS	8553.77521	1596	5.35951	--	--	--
ITEMS	56924.75778	65	875.76548	1428.93466	1.3100	1.4606
GROUPS X ITEMS	684.30780	325	2.10556	3.43552	1.0000	1.0000
ITEMS X SUBJECTS-WITHIN GROUPS	60274.66104	(98,347)	.61288	--	--	--

TABLE C3.8.--Analysis of variance--team teaching (frequency--green form).

SOURCE	SS	df(adjusted)	MS	F	$F_{(.05)}$	$F_{(.01)}$
GROUPS	39.10399	1	39.12399	7.26542	3.8415	6.6349
SUBJECTS	8621.31982	1601	5.38496	--	--	--
ITEMS	56957.65796	65	876.27166	1419.17833	1.3100	1.4606
GROUPS X ITEMS	56.72964	65	.87276	1.41349	1.3100	1.4606
ITEMS X SUBJECTS-WITHIN GROUPS	60923.97018	(98,671)	.61745	--	--	--

TABLE C3.9.--Analysis of variance--special education class (frequency--green form).

SOURCE	SS	df(adjusted)	MS	F	$F_{(.05)}$	$F_{(.01)}$
GROUPS	28.94592	1	28.94592	5.36955	3.8415	6.6349
SUBJECTS	8630.59299	1601	5.39075	--	--	--
ITEMS	56954.85019	65	876.22844	1419.54515	1.3100	1.4606
GROUPS X ITEMS	71.77893	65	1.10429	1.78902	1.3100	1.4606
ITEMS X SUBJECTS-WITHIN GROUPS	60905.46893	(98,671)	.61726	--	--	--

TABLE C3.10.--Analysis of variance--teacher classification code (frequency--green form).

SOURCE	SS	df(adjusted)	MS	F	$F_{(.05)}$	$F_{(.01)}$
GROUPS	446.28217	11	40.57111	7.86347	1.7879	2.2467
SUBJECTS	8208.67389	1591	5.15944	--	--	--
ITEMS	56991.72784	65	876.79579	1513.30846	1.3100	1.4606
GROUPS X ITEMS	4298.15726	715	6.01141	10.37541	1.0000	1.0000
ITEMS X SUBJECTS-WITHIN GROUPS	56792.31244	(98,021)	.57939	--	--	--

TABLE C4.1.--Analysis of variance--sex (seriousness--green form).

SOURCE	SS	df(adjusted)	MS	F	$F_{(.05)}$	$F_{(.01)}$
GROUPS	393.71930	1	393.71930	77.30539	3.8415	6.6349
SUBJECTS	8153.95441	1601	5.09304	--	--	--
ITEMS	42961.74884	65	660.94997	1097.81412	1.3100	1.4606
GROUPS X ITEMS	1391.07452	65	21.40115	35.54654	1.3100	1.4606
ITEMS X SUBJECTS-WITHIN GROUPS	59457.36502	(98,756)	.60206	--	--	--

TABLE C4.2.--Analysis of variance--socio-economic status (seriousness--green form).

SOURCE	SS	df(adjusted)	MS	F	$F_{(.05)}$	$F_{(.01)}$
GROUPS	25.27295	2	12.63647	2.38495	2.9957	4.6052
SUBJECTS	8408.58292	1587	5.29841	--	--	--
ITEMS	42578.18573	65	655.04900	1065.17228	1.3100	1.4606
GROUPS X ITEMS	170.77631	130	1.31366	2.13614	1.2214	1.3246
ITEMS X SUBJECTS-WITHIN GROUPS	60212.71393	(97,912)	.61497	--	--	--

TABLE C4.3.--Analysis of variance--educational level (seriousness--green form).

SOURCE	SS	df(adjusted)	MS	F	$F_{(.05)}$	$F_{(.01)}$
GROUPS	224.41034	4	56.10258	10.59404	2.3719	3.3192
SUBJECTS	8250.66281	1558	5.29568	--	--	--
ITEMS	41796.55182	65	643.02386	1053.44669	1.3100	1.4606
GROUPS X ITEMS	710.24908	260	2.73173	4.47531	1.0000	1.0000
ITEMS X SUBJECTS-WITHIN GROUPS	58664.13983	(96,107)	.61040	--	--	--

TABLE C4.4.--Analysis of variance--age (seriousness--green form).

SOURCE	SS	df(adjusted)	MS	F	$F_{(.05)}$	$F_{(.01)}$
GROUPS	301.77396	6	50.29566	9.76477	2.0986	2.8020
SUBJECTS	8215.40955	1595	5.15073	--	--	--
ITEMS	42744.63623	65	657.60977	1088.46956	1.3100	1.4606
GROUPS X ITEMS	1458.01529	390	3.73850	6.18793	1.0000	1.0000
ITEMS X SUBJECTS-WITHIN GROUPS	59429.08517	(98,366)	.60416	--	--	--

TABLE C4.5.--Analysis of variance--years teaching experience (seriousness--green form).

SOURCE	SS	df(adjusted)	MS	F	$F_{(.05)}$	$F_{(.01)}$
GROUPS	163.74240	4	40.93560	7.83907	2.3719	3.3192
SUBJECTS	8339.53375	1597	5.22200	--	--	--
ITEMS	42763.91245	65	657.90633	1082.24298	1.3100	1.4606
GROUPS X ITEMS	993.70279	260	3.82193	6.28700	1.0000	1.0000
ITEMS X SUBJECTS-WITHIN GROUPS	59879.49683	(98,501)	.60791	--	--	--

TABLE C4.6.--Analysis of variance--teaching the same group all day (seriousness--green form).

SOURCE	SS	df(adjusted)	MS	F	$F_{(.05)}$	$F_{(.01)}$
GROUPS	149.57001	1	149.57001	28.61516	3.8415	6.6349
SUBJECTS	8368.34534	1601	5.22695	--	--	--
ITEMS	42895.33768	65	659.92826	1112.50739	1.3100	1.4606
GROUPS X ITEMS	2320.47650	65	35.69964	60.18247	1.3100	1.4606
ITEMS X SUBJECTS-WITHIN GROUPS	58581.20950	(98,756)	.59319	--	--	--

TABLE C4.7.--Analysis of variance--class size (seriousness--green form).

SOURCE	SS	df(adjusted)	MS	F	$F_{(.05)}$	$F_{(.01)}$
GROUPS	52.19870	5	10.43974	1.97554	2.2141	3.0173
SUBJECTS	8434.04520	1596	5.28449	--	--	--
ITEMS	42882.08771	65	659.72441	1079.42735	1.3100	1.4606
GROUPS X ITEMS	680.01083	325	2.09234	3.42344	1.0000	1.0000
ITEMS X SUBJECTS-WITHIN GROUPS	60164.38791	(98,440)	.61118	--	--	--

TABLE C4.8.--Analysis of variance--team teaching (seriousness--green form).

SOURCE	SS	df(adjusted)	MS	F	$F_{(.05)}$	$F_{(.01)}$
GROUPS	52.08545	1	52.08545	9.84398	3.8415	6.6349
SUBJECTS	8471.04532	1601	5.29110	--	--	--
ITEMS	42897.42087	65	659.96030	1072.04285	1.3100	1.4606
GROUPS X ITEMS	42.51010	65	.65400	1.06236	1.3100	1.4606
ITEMS X SUBJECTS-WITHIN GROUPS	60795.07974	(98,756)	.65161	--	--	--

TABLE C4.9.--Analysis of variance--special education (seriousness--green form).

SOURCE	SS	df(adjusted)	MS	F	$F_{(.05)}$	$F_{(.01)}$
GROUPS	24.01404	1	24.01404	4.52494	3.8415	6.6349
SUBJECTS	8496.57013	1601	5.30704	--	--	--
ITEMS	42896.25946	65	659.94244	1056.61080	1.3100	1.4606
GROUPS X ITEMS	89.45465	65	1.37623	2.23734	1.3100	1.4606
ITEMS X SUBJECTS-WITHIN GROUPS	60746.46719	(98,756)	.61512	--	--	--

TABLE C4.10.--Analysis of variance--teacher classification code (seriousness--green form).

SOURCE	SS	df(adjusted)	MS	F	$F_{(.05)}$	$F_{(.01)}$
GROUPS	550.81625	11	50.07420	9.98784	1.7879	2.2467
SUBJECTS	7976.50867	1591	5.01352	--	--	--
ITEMS	42934.09653	65	660.52445	1172.59817	1.3100	1.4606
GROUPS X ITEMS	5729.31180	715	8.01302	14.22514	1.0000	1.0000
ITEMS X SUBJECTS-WITHIN GROUPS	55263.26260	(98,106)	.56330	--	--	--

APPENDIX D

SIMULATED INSTRUMENTS

BACKGROUND DATA

1. What is your sex?

   Male
   Female

2. What is the highest educational level you have completed?

   Doctoral Degree
   Educational Specialist
   Master's Degree
   Some College
   High School Degree

3. What is your age?

   21 or under
   22-25
   26-30
   31-40
   41-50
   51-60
   Over 60

4. As of June 1969, what will be the total number of years of teaching experience you will have had?

   0-1 years
   2-4 years
   5-10 years
   11-20 years
   Over 20 years

5. Do you teach to the same group of students all day? (Exclude extra-curricular activities)

   Yes
   No

6. What is the average student enrollment in the classes you now teach?

   10 and under
   11-16

17-20
21-27
28-34
Over 34

7. Are you presently team teaching?

Yes
No

8. From what socio-economic class are the majority of students you teach?

Lower
Middle
Upper

9. Do you teach special education classes?

Yes
No

10. What grade(s) are you presently teaching? If non-graded, what level?

K
1
2
3
4
5
6
7
8
9
10
11
12

11. In which subject matter area(s) do you now teach classes? (Elementary teachers: be sure to mark all that apply)

Art
Business Education
Foreign Language
Health and Physical Education
Home and Family Living
Home Economics
Humanities
Industrial Arts
Language Arts (including English)

Library
Mathematics
Music
Safety/Driver Education
Science
Social Studies
Vocational/Distributive Education

RESPONSE QUESTIONNAIRE--RED FORM

1. Showing disrespect for another student's opinions.
2. Naively asking teacher personal questions.
3. Failing to follow directions for assignment.
4. Leaving desks or lockers messy.
5. Playing with toys, yo-yo's, etc. in class.
6. Leaving room before dismissal.
7. Throwing temper tantrums.
8. Girls wearing skirts too short.
9. Making allusions to sex (written or verbal).
10. Carrying cigarettes.
11. Pulling a student's hair.
12. Swearing at teacher.
13. Cheating on in-class assignment.
14. Failing to put away materials after use.
15. Throwing erasers, spitballs, paper airplanes, etc. in class.
16. Refusing to participate in class activities or assignments.
17. Gossiping among students.
18. Combing hair in class.
19. Having arms around each other outside of class on school property.
20. Possessing alcohol on school property.
21. Destroying or defacing another student's property.
22. Pulling prank against teacher.
23. Failing to complete homework.
24. Misusing class materials (e.g. turning Bunsen burner too high).
25. Talking out while class is working quietly.
26. Daydreaming in class.
27. Always asking to go to the bathroom or get a drink of water.
28. Wearing clothes too tight.
29. Holding hands in class.
30. Possessing firecrackers on school property.
31. Calling another student names.
32. Complaining about grades.
33. Turning in messy papers.
34. Forgetting notebooks, textbooks, or other classroom materials.
35. Whispering, or nonverbally communicating at inappropriate times.
36. Cutting classes or skipping school.

37. Displaying masochistic behavior to demand attention.
38. Failing to be adequately clean.
39. Looking up girl's skirt.
40. Reading or possessing obscene books or pornographic materials in class.
41. Verbally interrupting a student while he is talking to teacher or class.
42. Making passes at teacher or getting fresh with teacher.
43. Cheating on tests.
44. Throwing water.
45. Answering questions in humorous, disruptive way.
46. Sitting in wrong seat.
47. Using slang in class.
48. Chewing gum in class.
49. Kissing outside of class on school property.
50. Throwing things out window.
51. Stealing from another student.
52. Questioning teacher's opinion.
53. Under the influence of narcotics in class.
54. Deliberately dropping books or other objects in class.
55. Drawing pictures to poke fun at teacher.
56. Excessive belching in class.
57. Turning in false fire alarms or bomb scares.
58. Calling teacher by first name.
59. Writing on walls.
60. Slouching or otherwise sitting inappropriately in seat.
61. Making noise in the halls.
62. Soiling pants.
63. Possessing guns on school property.
64. Caring for fingernails in class.
65. Verbally interrupting teacher while she is talking.
66. Stealing materials from school.

RESPONSE QUESTIONNAIRE--GREEN FORM

1. Drawing picture to poke fun at another student.
2. Asking teacher personal questions to purposely make her uncomfortable.
3. Doing wrong assignment.
4. Failing to hang up coats, boots, etc.
5. Clicking pens, or making other similar noises in class.
6. Refusing to take lecture notes.
7. Crying in class.
8. Wearing inappropriate clothing (e.g. low cut dresses, ripped, etc.).
9. Discussing sexual matters.
10. Smoking on school property.
11. Swearing at another student.
12. Arguing with teacher.
13. Cheating on homework.
14. Carelessly using materials (e.g. spilling paints).
15. Throwing erasers, spitballs, paper airplanes, etc. in class.
16. Complaining about class activities or assignments.
17. Spitting.
18. Putting on make-up in class.
19. Hugging or having arms around each other in class.
20. Under the influence of alcohol in class.
21. Throwing things at another student.
22. Pulling prank against teacher.
23. Failing to complete in-class assignment.
24. Misusing bathrooms (e.g. stuffing up toilets, throwing paper around).
25. Asking irrelevant questions (not pertaining to content being discussed).
26. Sleeping in class.
27. Excessive complaining about feeling ill (hypochondriac).
28. Boys wearing shirts out.
29. Holding hands outside of class on school property.
30. Possessing brass knuckles, molotov cocktails, etc. on school property.
31. Making fun of another student.
32. Sassing or speaking rudely to teacher.
33. Plagiarizing.
34. Forgetting lunch money, permission slips or other non-academic materials.
35. Writing and passing personal notes in class.

36. Coming to class tardy.
37. Displaying masochistic behavior to demand attention.
38. Failing to have hair cut properly.
39. Making obscene gestures.
40. Possessing stolen goods (not stolen from school, teacher or students).
41. Laughing at another student's mistakes.
42. Inappropriate display of affection towards teacher.
43. Cheating on tests.
44. Throwing refuse on floor.
45. Whispering or nonverbally communicating after teacher's request to stop.
46. Reading, writing, etc. while teacher is talking.
47. Pulling pranks (e.g. hiding things).
48. Chewing gum in class.
49. Petting outside of class on school property.
50. Starting fires.
51. Hitting, shoving, or tripping another student.
52. Pointing out teacher's mistakes.
53. Possessing narcotics on school property.
54. Putting notes on the blackboard when teacher isn't there.
55. Making fun of teacher.
56. Expelling gas in class.
57. Failing to leave buiding during fire drill.
58. Lying to teacher with the intent to deceive (not fantasy).
59. Writing on desk tops.
60. Putting books or papers away too soon.
61. Tattling.
62. Soiling pants
63. Possessing knives on school property.
64. Eating in class.
65. Stealing from teacher.
66. Stealing materials from school.

BIBLIOGRAPHY

BIBLIOGRAPHY

"Activities and Arrangements for the 1969-70 Michigan Assessment of Education." Assessment Report Number Two, Michigan Department of Education, 1969.

Backstrom, Charles H., and Hurst, Gerald D. Survey Research. Evanston: Northwestern University Press, 1963.

Batchhelder, Howard T.; McGlasson, Maurice; and Schorling, Raleigh. Student Teaching in Secondary Schools. New York: McGraw-Hill Book Co., 1956.

Berelson, Bernard, and Steiner, Gary A. Human Behavior: An Inventory of Scientific Findings. New York: Harcourt, Brace and World, Inc., 1964.

Betts, George H. "Teacher's Diagnosis of Classroom Difficulties." Elementary School Journal (April, 1927), 600-608.

Bond, Jesse. "Analysis of Observed Traits of Who were Rated Superior in School Discipline." Journal of Educational Research, Vol. 45 (March, 1952), 507-516.

Bounchard, John B., and Hull, Ronald E. "A Pilot Study of Problems and Practices in the Induction of Beginning Teachers." Paper presented at 1969 Meeting of Educational Research Association of New York State, Concord Hotel Kiamesha Laice, New York, November 6, 1969.

Buck, S. F. "A Method of Estimation of Missing Values in Multivariate Data Suitable for Use with an Electronic Computer." Royal Statistical Society Journal, Series B, Vol. 22 (1960), 302.

Cochran, William G., and Cox, Gertrude M. Experimental Design. 2d ed. New York: John Wiley and Sons, 1957.

Cookingham, Frank. "Critical Research: A Two-Way Street Between Research and Practice." Papers of the Institute No. 52, Learning Systems Institute, Michigan State University, June, 1967.

Corey, Stephen. Action Research to Improve School Practices. New York: Teachers College, Columbia University, 1953.

Corman, Bernard R. "Action Research: A Teaching or a Research Method?" Review of Education Research, Vol. XXVII (December, 1957), 544-547.

Corsini, R. J., and Howard, D. D. Critical Incidents in Teaching. Englewood Cliffs, New Jersey: Prentice Hall, Inc., 1964.

Cox, D. R. Planning of Experiments. New York: John Wiley and Sons, 1958.

Deiulio, Anthony. "Problems of Student Teachers." American Teacher, Vol. XLVI (December, 1961), 9-10, 19-20.

Eaton, Merrill T.; D'Amico, Louis; and Phillips, Beeman N. "Problem Behavior in School." The Journal of Educational Psychology, Vol. 47 (October, 1956), 350-357.

Ellis, D. B., and Miller, L. W. "A Study of the Attitudes of Teachers Toward Behavior Problems." Journal of Educational Psychology, 27 (1936), 501-511.

Epstein, Leon. "An Analysis of Teachers' Judgments of Problem Children." The Journal of Genetic Psychology, Vol. 59 (September, 1941), 101-107.

Fuller, Frances. "Concerns of Teachers: A Developmental Conceptualization." American Education Research Journal, Vol. VI (March, 1969), 207-226.

Galvin, John P., and Quay, Herbert C. "Behavior Disorders." Review of Educational Research, Vol. XXXIX (February, 1969), 83-102.

Gnagey, William J. Controlling Classroom Misbehavior. Washington, D.C. National Education Association, 1965.

_____. "Effects of a Deviant Student's Responses to Discipline." The Journal of Educational Psychology, Vol. 51 (February, 1960), 1-8.

Greene, James E., and Gatesky, Francis. "Discipline and Morale." The Journal of Teacher Education, Vol. XII, No. 4 (December, 1961), 437-447.

Haggerty, M. E. "The Incidence of Undesirable Behavior in Public School Children." Journal of Educational Research, Vol. 12 (September, 1925), 102-112.

Hays, William. Statistics. New York: Holt, Rinehart and Winston, Inc., 1963.

Henderson, Judith. "An Investigation of Practitioner Evaluation and Agreement Regarding Effective Language Arts Instruction." Unpublished Ph.D. dissertation, Michigan State University, 1968.

Hildreth, Gertrude. "A Survey of Problem Pupils." Journal of Educational Research, Vol. XVII (June, 1928), 1-14.

Hillway, Tyrus. Handbook of Educational Research: A Guide to Methods and Material. Boston: Houghton Mifflin Company, 1969.

Hodgkinson, Harold L. "Advantages and Limitations of Informal Classroom Investigations." American Business Education Yearbook, 1961.

Hugo, David J., ed. Handbook for Student Teachers, Michigan State University. Dubuque, Iowa: William C. Brown Book Company, 1964.

Hunter, E. C. "Changes in Teachers' Attitudes Toward Children's Behavior over the Last Thirty Years." Mental Hygiene, Vol. 41 (January, 1957), 3-11.

Hyman, Herbert. Survey Design and Analysis: Principles, Cases and Procedures. New York: The Free Press, 1955.

Iannaccone, Lawrence, and Button, H. Warren. Functions of Student Teaching. Washington, D.C.: U. S. Office of Health, Education and Welfare Research, Project 1026, 1964.

Kerlinger, Fred N. Foundations of Behavioral Research. New York: Holt, Rinehart and Winston, Inc., 1967.

Kirk, Roger. Experimental Design: Procedures for the Behavioral Sciences. San Francisco: Brooks/Cole Publishing Company, 1968.

Kool, Beverly Y., and Schultz, Richard E. "A Factor Analysis of Classroom Disturbance Intercorrelations." American Education Research Journal, Vol. 57 (1965), 37-40.

Kounin, J. S.; Friesen, Wallace V.; and Norton, A. Evangeline. "Managing Emotionally Disturbed Children in Regular Classrooms." Journal of Educational Psychology, Vol. 57, No. 1 (February, 1966), 1-13.

Kounin, J. S., and Gump, P. V. "The Ripple Effect in Discipline." Elementary School Journal, Vol. 59 (December, 1958), 158-162.

Levy, John. "Quantitative Study of Relationship Between Intelligence and Economic Factors in the Etiology of Children's Behavior Problems." American Journal of OrthoPsychiatry, Vol. 1 (January, 1931), 152-162.

Mitzel, Harold E., and Medley, Donald M. "Measuring Classroom Behavior by Systematic Observation." Handbook of Research on Teaching. Edited by N. L. Gage. Chicago: Rand McNally and Company, 1963.

Mutimer, Dorothy D., and Rosemier, Robert A. "Behavior Problems of Children as Viewed by Teachers and Children Themselves." Journal of Consulting Psychology, Vol. 31 (December, 1967), 583-587.

Myers, Jerome L. Fundamentals of Experimental Design. New York: Allyn and Bacon Inc., 1966.

Peck, Leigh. "Teachers' Reports of the Problems of Unadjusted School Children." The Journal of Educational Psychology, Vol. 26 (1935), 123-138.

Redl, Fritz. When We Deal with Children. New York: The Free Press, 1966.

Redl, Fritz, and Wineman, D. Controls from Within. New York: The Free Press, 1952.

_____. The Aggressive Child. New York: The Free Press, 1957.

Schrupp, Manfred H., and Gjerde, Clayton M. "Teacher Growth in Attitudes of Children." The Journal of Educational Psychology, Vol. 44 (1953), 203-214.

Sharp, Jack. Off Campus Student Teaching. Thirtieth Yearbook of the Association for Student Teaching. Iowa: Association for Student Teaching, 1951.

Sparks, J. N. "Teacher Attitudes Toward the Behavior Problems of Children." Journal of Educational Psychology, Vol. 43, No. 5 (May, 1952), 284-291.

Stouffer, George A. "Behavior Problems of Children as Viewed by Teachers and Mental Hygienists: A Study of Present Attitudes as Compared with those Reported by E. K. Wickman." Mental Hygiene, 35 (1952), 271-285.

Stuart, A. Basic Ideas of Scientific Sampling. New York: Hafner Publishing Company, 1968.

Student Teaching: Questions and Answers for Prospective Student Teachers. East Lansing, Michigan: Michigan State University, College of Education, Student Teaching Office.

Thompson, Michael L. "Identifying Anxieties Experienced by Student Teachers." Journal of Teacher Education, Vol. 14 (December, 1963), 435-439.

Tolar, A; Scarpetti, W. L.; and Lane, P.A. "Teachers' Attitudes toward Children's Behavior Revisited." Journal of Educational Psychology, Vol. 58 (1967), 175-180.

Travers, Robert M.W.; Rabinowitz, William; and Nemovicher, Elinor. "The Anxieties of a Group of Student Teachers." Educational Administration and Supervision, XXXVIII (October, 1952), 368-375.

Ward, Ted W. "Professional Integration and Clinical Research." Learning Systems Institute, Michigan State University, East Lansing, Michigan, 1966.

Watson, Goodwin. "A Critical Note on Two Attitude Studies." Mental Hygiene, Vol. 17 (January, 1933), 59-64.

Wickman, E. R. Children's Behavior and Teachers' Attitudes. New York: The Commonwealth Fund, 1932.

Winer, B. J. Statistical Principles in Experimental Design. New York: McGraw-Hill, 1962.

Wingo, Max G., and Schorling, Raleigh. Elementary School Student Teaching. New York: McGraw-Hill Book Co., 1960.

Yourman, Julius. "Children Identified by Their Teachers as Problems." Journal of Educational Sociology, Vol. 5 (February, 1932), 334-343.