

CONSTRUCTION OF INSTRUMENTS FOR MEASURING  
TEACHER CONTROL AND STUDENT INVOLVEMENT  
AND AN EMPIRICAL TEST OF ETZIONI'S  
COMPLIANCE RELATIONSHIPS IN  
PUBLIC SECONDARY SCHOOLS

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## PREFACE

In order to reduce or eliminate misunderstanding, it is important that the reader understand the theoretical framework from which this study was derived. Therefore, a careful reading of Amitai Etzioni's A Comparative Analysis of Complex Organizations (20) with special attention to Part One (pp. 1-67) is recommended.

Three misunderstandings are most frequently encountered in applying the compliance relationships theory to public schools: (1) a definition of the lower participants, (2) the inclusion of negative elements in normative control, and (3) the distinction that grades and awards do not constitute remuneration. Suffice it to say that in the public schools the lower participants are the students, not the teachers; that the use of ridicule and sarcasm is a normative, not a coercive, technique of control; and that grades, marks, citations, and awards are considered as normative control devices and not as remuneration to the student to secure his compliance.

Many persons have made significant contributions to this study. Dr. Donald E. Allen, of the Oklahoma State University Sociology Department, was most helpful with both the instrument development and the computer programming used in the item analysis. I wish to express my sincere thanks to him for his many courtesies. Members of my committee, Dr. Richard P. Jungers, Dr. David Glenday, Dr. Wayne K. Hoy, and Dr. Robert Sandmeyer, were very helpful with comments and suggestions which guided the study. I wish to express my very deep thanks to

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## TABLE OF CONTENTS

Chapter	Page
I. INTRODUCTION . . . . .	1
Statement of the Problem . . . . .	4
Hypothesis . . . . .	5
Definition of Terminology . . . . .	6
Limitations . . . . .	7
Summary . . . . .	9
II. REVIEW OF THE LITERATURE . . . . .	10
Summary . . . . .	19
III. METHOD . . . . .	20
Instrumentation . . . . .	23
Construction of the Control Type Scale . . . . .	28
Control Type Scaling Procedures . . . . .	30
Validity of the Control Type Scale . . . . .	33
Construction of the Student Involvement Scale . . . . .	40
Validity of the Student Involvement Scale . . . . .	45
Reliability of the Student Involvement Scale . . . . .	46
Cross-Validation of the Student Involvement Scale . . . . .	46
Scoring of Instruments . . . . .	47
Summary . . . . .	48
IV. RESULTS . . . . .	51
Summary of Results . . . . .	54
V. SUMMARY AND DISCUSSION OF FINDINGS . . . . .	57
Discussion . . . . .	58
Recommendations . . . . .	61
A SELECTED BIBLIOGRAPHY . . . . .	65
APPENDIX A - CONTROL TYPE SCALE . . . . .	69
APPENDIX B - STUDENT INVOLVEMENT SCALE . . . . .	73
APPENDIX C - SAMPLE RUN SHEET . . . . .	75

Chapter	Page
APPENDIX D - SCALING SHEET . . . . .	77
APPENDIX E - GUTTMAN SCALING TERMINOLOGY . . . . .	80

## LIST OF TABLES

Table	Page
I. Control Type Scale Items and Level of Difficulty . . . . .	31
II. Principals' Selections of Known Groups for Validation of the Control Type Scale . . . . .	34
III. Control Type Criterion Instrument Biserial Correlations . . . . .	38
IV. Principals' Selections of Known Groups for Validation of the Criterion Instrument . . . . .	39
V. Cross-Validation of the Control Type Scale Using Groups Selected by the Criterion Instrument . . . . .	40
VI. Biserial Correlations of Items Used in the Student Involvement Scale . . . . .	44
VII. Validation of the Student Involvement Scale by Use of Known Groups Selected by the Counselor . . . . .	46
VIII. Student Involvement Scale Cross-Validation in a Large High School . . . . .	47
IX. Control Pattern and Student Involvement of Schools Studied . . . . .	51
X. Rank Order of Schools on Control Pattern and Student Involvement . . . . .	52
XI. Rank Order of Schools on Control Pattern and Teacher-Student Ratio . . . . .	55
XII. Rank Order of Schools on Student Involvement and Teacher-Student Ratio . . . . .	55



## CHAPTER I

### INTRODUCTION

The chief concern of this thesis is to examine Etzioni's compliance relationships theory as far as the public schools are concerned. Etzioni (20) posits that there is a strong relationship between the kind of power employed by an organization to secure the compliance of the lower participants of the organization and the kind of involvement that the lower participants have as a result of the power employed. He classifies power as coercive, remunerative, and normative (20, p. 5). Each kind of power tends to generate a particular kind of involvement: coercive power results in alienation; remunerative power generates calculative involvement; and normative power tends to produce commitment (20, p. 7).

Etzioni (20, p. 12) classifies organizations according to the combination of predominant kinds of power and involvement which they possess. Coercive organizations, then, are those whose predominant power is coercive and whose involvement of their lower participants is chiefly alienative. Utilitarian organizations are those which chiefly use remuneration to secure compliance of their lower participants whose involvement is calculative -- neither highly alienated nor highly committed, but somewhere in between. Normative organizations most frequently employ the use of symbolic rewards and devices, the manipulation of prestige, esteem, and ritualistic symbols, and the allocation

and manipulation of acceptance and positive response (20, p. 6).

Involvement of the lower participants in normative organizations is predominantly commitment.

Etzioni classifies the public school as a normative organization which has a strong secondary compliance pattern in its compliance structure of coercion. This is more or less a recognized phenomenon as almost every person has somewhere in his educational background experienced control measures of both kinds. As Bruner (8, p. 90) says:

Who is not able to recall the impact of some particular teacher--an enthusiast, a devotee of a point of view, a disciplinarian whose ardor came from love of a subject, a playful but serious mind? There are many images, and they are precious. Alas, there are also destructive images: the teachers who sapped confidence, the dream killers, and the rest of the cabinet of horrors.

Further evidence of the existence of both a resort to coercion and an appeal to normative practices comes from Sheviakov and Redl (52, p. 1) who say:

In the face of uncertainty many persons tend to regress to simple and primitive ways of dealing with difficulties. In times of strain and anxiety there are demands for speeded-up action. Patient educational procedures, the making of complex judgments, are likely to be neglected. Instead, people begin to look for a less thought-requiring procedure. Some begin to look for a scale in which there is a prescribed form of punishment for every specific misdemeanor. Others advocate such coercive techniques as a return to "woodshed" whippings, military marching in schools, more drill in the 3 R's, or fining parents of children who get into trouble. These solutions are appealing because they seem simple and definite. They are ineffective in the long run, however, because they do not teach children right ways of behaving when coercion is removed.

Ever since Colonial times the schools of America have slowly but continuously eliminated the use of harsh and cruel punishments of students. Corporal punishment has been made illegal in New Jersey and the District of Columbia (36, p. 146). Many of the large city schools

do not permit the use of corporal punishment; others have set severe restrictions upon the use of it. The use of punitive sanctions in general and corporal punishment in particular is at cross purposes with commonly-accepted psychological principles and guidance and counseling practices.

Concerning the schools Etzioni (20, p. 45) says:

Educational organizations characteristically employ normative controls, with coercion as a secondary source of compliance. Normative controls in schools include manipulation of prestige symbols, such as honors, grades, and citations; personal influence of the teacher, "talks" with the principal; scolding and sarcasm, demanding "apologies," and similar means which are based on appeals to the student's moral commitments and on manipulation of the class or peer group's climate of opinion. Coercion has declined in significance over the last decades, for modern education de-emphasizes "discipline" as a goal and stresses internalization of norms.

It might be well to note at this point that the use of scolding and/or sarcasm is classified as a normative control device by Etzioni (20, p. 45); and also that the awarding of honors, grades, and citations is also a normative control, not a remunerative device.

An organization is said to be a congruent type when the involvement of its lower participants is the same as the kind of involvement that tends to be generated by the predominant form of organizational power (20, p. 12). A school would be a congruent type of organization, then, if its control pattern were normative and its modal involvement of the student body found to be committed, or if its control pattern were very coercive and its modal involvement proved highly alienative. This leads directly to Etzioni's first dynamic hypothesis (20, p. 14).

Congruent types are more effective than incongruent types. Organizations are under pressure to be effective. Hence, to the degree that the environment of the organization allows, organizations tend to shift their compliance structure from incongruent to congruent types and

organizations which have congruent compliance structures tend to resist factors pushing them toward incongruent compliance structures.

Concerning the public schools, then, one could expect to find two congruent types: (1) those schools with coercive control patterns and alienative involvement and (2) those with normative control patterns and positive involvement (commitment); and two incongruent types: (1) those schools with coercive control patterns and committed student bodies and (2) those with normative control patterns and alienated students. These incongruent types should be seldom found if the hypothesis is valid because not only do organizations resist factors which would push them toward an incongruent state but they also strain toward a congruent state if they are not already in one (20, p. 87).

The preceding introductory material is presented to establish at least a superficial acquaintance with Etzioni's compliance relationships theory and to indicate the general importance of the problem.

#### Statement of the Problem

The problem investigated in this study is that of testing the theoretical formulation of Etzioni's compliance relationships as it pertains to the public secondary schools. The theoretical base of compliance runs parallel with the "If frustration, then aggression" formula: if normativeness, then commitment; and if coercion, then alienation. There is much from logic and common sense, as well as from experience and observation, to back up the theory. But little if any empirical research has been done to validate the theoretical formulation of compliance relationships in the public secondary schools.

The problem then becomes that of ascertaining whether a

relationship exists in public secondary schools between the predominant kind of power used by the teaching staff to secure the compliance of the students and the orientation of the students to that power. There is no attempt to try to isolate the causal variable if a relationship exists; the problem is simply to ascertain if a significant relationship exists. Therefore, there is no control for age, sex, IQ, ethnic background, religious preference, or socio-economic status of either students or teachers.

### Hypothesis

Etzioni states that his formulation of compliance relationships is theoretical. He says (20, pp. 297-298),

It is oriented to the formulation and codification of propositions and to an examination of concepts required for their advancement. Efforts have been made to bring our statements as close as possible to propositions which can be tested directly, through empirical research.

It was the above considerations which prompted the present study to examine compliance relationships in the public schools and to attempt to quantify the theoretical constructs related to compliance. The hypothesis which was tested concerned the relationship between involvement and power and was stated as follows: Student commitment will vary inversely with the degree of coerciveness of the school's control pattern.

The same theoretical construct could have been tested by stating the hypothesis in terms of a direct varying of commitment and normative control or a direct varying of alienation and coercive control. It could, of course, also have been stated in the null form; but with such

powerful theoretical foundations supporting it, a directed hypothesis was deemed justified.

#### Definition of Terminology

In order that there be no misunderstanding of terms used in this study, the following definitions are provided:

Teacher Control Type -- the type of control used by the teacher in securing obedience of students, ranging from highly coercive to highly normative, expressed as a number (Guttman scale type as determined by the Control Type Scale).

School Control Pattern -- the mean score of classroom teachers in a particular school on the Control Type Scale.

Involvement -- the orientation of students to the kind of power employed, ranging from highly alienated to highly committed, expressed as a number obtained from the score made on the Student Involvement Scale, a Likert-type instrument employed in measuring student alienation and student commitment. Involvement is treated as both an individual score and as a mean score of a student body. As a mean score it refers to the involvement found in the school.

Commitment -- positive involvement of a student.

Alienation -- negative involvement of a student.

## Limitations

There are at least two major factors and several minor factors related to the study which cast some limitations on the conclusions which one may draw from the findings. These limitations are mentioned so that the reader may be aware of them and so that he may realize the necessity for employing a greater degree of conservatism before drawing any conclusions.

The greatest limitation pertains to the time of year during which some of the data were obtained. One school was studied after the middle of May when there was a great deal of unrest among the students as they eagerly looked forward to the completion of the term and the beginning of vacation. At this time of year the faculty may have tended to "clamp down" just a little more on their control as they viewed the student body restiveness as a precursor of widespread deviancy. This tightening of control, if the theoretical base of the study is valid, generates more student unrest and alienation; therefore, the data gathered during the press of activities accompanying the closing of the school term may have been biased in the direction of greater coerciveness and/or greater alienation than would normally have been present at some other time during the school year.

A second major limitation is related to the possible biasing effect of self-selection of the schools to be studied. Although the schools were drawn at random, only four principals from the first group of nine schools drawn gave permission for the use of their high schools in the study. The question of why the other five principals did not wish to have their schools used in the study can, of course, never be completely resolved. Some replied that their calendar was full, and

others simply said "no" with no explanation. Certainly, a bias would exist if the reason in any one of the five schools was that the principal did not wish an investigator to discover some unfavorable characteristic of his school, such as a highly alienated student body or an extremely punitive teaching staff.

A third limitation is mentioned briefly in Chapter III in the description of the sample which was used from the student body of the last school studied. The sample from this school consisted entirely of study hall populations, a factor which might tend toward a lower involvement mean score than would have resulted had a sample of the entire student body been taken. This would be no serious limitation if all students had the same number of study halls so that a sample drawn from them would be representative of the high school population. But some of the students of this high school did not have any study hall period; and to the extent that these students were above or below average on involvement, the data were biased. An attempt was made to compensate at least partially for this bias by the selection of the sample from morning study halls.

Another limitation which should be borne in mind is that the sample of schools studied was limited to those of a single state and that none of them represented either an urban or an industrial community. Therefore, any findings of the study might or might not be indicative of relationships in all schools throughout the United States.

The researcher also recognizes the limitations imposed by a study at one point in time. Such a study must make the assumption that average conditions prevailed at the time the measurements were made as well as the assumption that the phenomenon studied was not in the process of



change from one state to another. This latter is an assumption that can seldom be made when the study deals with a living population.

A further limitation concerns the possibility that some responses may have been falsely given. For example, students and teachers alike could easily assume attitudes or control methods foreign to their personalities and beliefs. One must assume, therefore, that such counterfeiting of responses would be as likely to occur in one direction as in another, thus having only a negligible effect upon the mean scores.

#### Summary

In his compliance relationships theory, Etzioni (20, p. 12) classifies organizations as coercive, utilitarian, and normative, depending upon the kinds of power used to control the lower participants and the orientation of the lower participants to the power used by the organization. Etzioni (20, p. 45) classifies schools as normative organizations, employing normative power primarily, with coercion used secondarily.

Etzioni (20, p. 14) hypothesizes that there is a direct relationship between the kind of power an organization employs and the kind of involvement the lower participants have as a result of the power used.

The problem of this study is twofold: (1) the construction of instruments for measuring both teacher control and student involvement and (2) a testing of Etzioni's compliance relationships in nine schools.

The hypothesis was stated: Student commitment will vary inversely with the degree of coerciveness of the school's control pattern.

Several limitations became apparent. Some degree of bias may have entered because of falsified responses. A self-selection bias, in addition to temporal and geographic limitations, may also have been present.

## CHAPTER II

### REVIEW OF THE LITERATURE

Several studies have been made in which the controlling behavior of the teacher has been related to academic achievement (15) (21) (51), interest in school (46), and artistic and poetic creativity (16). Flanders (21) and associates attempted to relate student attitudes to the influence patterns of teachers in both the United States and New Zealand. The teacher influence pattern was measured by an analysis of the verbal interaction in the classroom, and it dichotomized teachers as being direct or indirect. Flanders reported that classes under flexible, indirect teachers learned more than those under direct, inflexible teachers. An additional finding was that teachers with high indirect interaction ratios made fewer criticisms, gave fewer directions, and administered less corporal punishment than their direct, inflexible counterparts. Further, a positive social-emotional climate tended to be associated with indirect teacher influence.

Schantz (51), using the Flanders' system of classifying teachers, tested the difference between direct and indirect teaching and its effect upon achievement of high and low ability children in elementary science classes. She found learning increments in all groups; however, the high ability group lost a great deal of its homogeneity under the direct teacher influence.

Manning (38) concluded from his observation of teachers in a number of

different situations that directive behavior was far more common than nondirective. Manning based his observations of teacher behavior upon a rating scale which he developed to measure the dimension of permissiveness versus control in the classroom behavior of teachers. He further concluded that directiveness increased with grade level.

Reed (46) observed that in classes taught by warm, friendly teachers there is greater interest in school work than in classes taught by cold, unfriendly teachers. Pursuing Reed's line of investigation further, Christensen (15) found that teacher warmth was directly related to vocabulary and arithmetic achievement as indicated by scores made on achievement tests. A related finding was that the affective response of the teacher is of greater importance than permissiveness as far as growth in achievement is concerned. Cogan (16) also found strong evidence to show that in the perception of pupils the friendliness of teachers was related to the pupils' scores on the performance of both required and self-initiated work. In a 1957 study, the findings of which are somewhat at variance with the general findings, Silberman (54) reported no significant relationship between the teacher's use of either praise or blame and the students' gains in reading scores.

Apparently, then, the cold, inflexible, unfriendly teacher sacrifices much more in the form of lack of achievement, lowered interest level, and reduced creativity on the part of the students than she gains in surface order and control of the classroom.

Yet perhaps the findings relating underachievement, lack of interest in school, and reduced artistic and creative output to direct inflexible, and authoritarian types of teachers are of less importance than the findings of Laycock (37) relating these teacher characteristics to

adverse effects upon the mental health of the students. Dean Laycock's conclusion based upon his visits to 157 classrooms, is (37, p. 55)

that the effect of many teachers on the mental health of their pupils is definitely bad. This seems to be largely the result of the public's ignorance that the teacher's job is that of a social engineer engaged in promoting the all-round growth and development of pupils rather than that of a "filling-station hand" whose job is to fill the tank in the child's mind with subject matter. Only as the public comes to understand education in terms of emotional and social, as well as intellectual development, is there any hope that teachers will be selected and trained with this view.

Coleman (17) in a study of ten midwestern schools found that in the school with the highest number of negative responses there also was the greatest decrease in the number of students planning to enter teaching. According to Coleman (17, p. 69):

The implications, of course, are far broader than Elmtown alone. They suggest that adolescents' desires to go into teaching are strongly affected by relations with their teachers. They suggest that a girl coming into a school with the intention of becoming a school-teacher can have her interest quickly dampened if she finds a less-than-pleasant state of relations between her friends and her teachers.

In a recent study of dropouts, Fr. Cervantes (14) found an almost total lack of identification with teachers among the dropouts. In matched pairs of dropouts and graduates, he found that only one in 16 of the dropouts and six in 16 of the graduates felt that they had any close friends among the faculty. These findings closely parallel those of Coleman previously referred to; perhaps in both studies the deterioration of relations between teachers and students accounts at least to some extent for both the non-identification with teachers and the decrease in the number of students planning to enter teaching.

Classroom teachers and mental hygienists do not see behavior

problems alike as pointed out in an early study by Wickman (58). She found that teachers' reactions to behavior problems were largely determined by the direct effect which the behavior produced upon the teachers themselves (58). Teachers saw the most serious behavior problems as the overt acts of children while mental hygienists viewed shyness and reticence of children as the more serious.

In a 1962 field study of mental health in public schools, Allinsmith and Goethals (2) found much agreement between students and teachers in their perceptions of the ideal teacher-student relationship: both agreed that the teacher should be friendly but reserved in the classroom; to a lesser extent both groups agreed that it should be permissible for teachers and students to be close friends outside of the school setting; students believed the relationship should be on an equalitarian basis, but the teachers felt that a differentiated status system should be preserved.

Ryans' Teacher Characteristics Study (50), employing independent observations by at least two trained observers, categorized teachers along three patterns: TCS pattern X pointed out warm, understanding, friendly versus egocentric, aloof, and restricted teacher behavior; TCS pattern Y distinguished responsible, businesslike, systematic versus unplanned, evading, and slipshod teacher behavior; and TCS pattern Z categorized teacher behavior which was stimulating, imaginative, and surgent versus dull and routine. Major findings of Ryans' study were that teachers whose observed classroom behavior was judged to be more characteristically warm and understanding, as well as more stimulating and imaginative, (patterns X and Z) had more favorable attitudes toward both their students and their administrators than did

other types of teachers; teachers judged to be more warm and friendly in their classroom behavior expressed more permissive educational viewpoints; and elementary teachers who were judged to be not only warm and friendly in their classroom behavior but also stimulating in their classes tended to manifest superior emotional adjustment (50, p. 386). One of Ryans' findings seems not to fit the general trend of teacher behavior research; he found that the actual behavior of the pupils in the classroom (based upon observers' assessments) did not appear to be related to the attitudes of the teachers (50, p. 385).

A number of studies have dealt with techniques of classroom control and various kinds of deviancy (58) (13) (24) (60). The Wickman study previously cited (58) represented an early attempt to discover what kinds of deviancy were regarded as most serious by classroom teachers. Apparently, the degree of visibility of the deviant act, both its visibility to the teacher and to the student population, was directly related to the degree of seriousness which it held for the teacher. In a 1935 study by Campbell (13) not only the deviant acts were studied but also the "treatments" used by the teachers for each act were indicated. In grades one through six the use of physical force and/or detention accounted for only 7.8 percent of the total treatments used in handling 2,715 disciplinary problems. Teachers were also rated by their principals as being either A (good) or C (poor) on their classroom control. An additional finding was that teachers who were rated poor on their classroom control employed over twice as many detentions (59 versus 27) as did the teachers who were rated superior in their classroom control. A question which arises at this point was not pursued in the study: Did these teachers have poorer classroom control

because they employed more detentions, or did they employ more detentions because their classroom control situation demanded it?

The following year Garinger (24) made an extensive study of disciplinary techniques used in public high schools in which he found the incidence of corporal punishment and/or detention to be much higher than in the Campbell study referred to above. Principals of 312 high schools reported the frequent use of either detention or corporal punishment in more than 22 percent of the 877 cases handled (24).

Concerning this apparent coercive tendency, Garinger (24, p. 81) says:

The high school principal represented in this inquiry certainly does not give evidence of full commitment to the newer concepts of discipline. This fact is evident when he ranks the offenses in the order of seriousness for the future adjustment of the pupil. In the main, he rates as most serious those offenses that threaten the established order of the school or that violate the moral code. ... Certain offenses are regarded as most serious not because of the effect on the future adjustment of pupil but because they annoy and irritate the principal or teacher.

Logically, the over-use of coercion by the teachers and administrators should result in an alienated student body. Few studies have attempted to relate alienation of the student to school-related variables. In Stinchcombe's (55, p. 172) study of rebellion and expressive alienation among high school students, he found that expressive alienation

... appears to be most common among the adolescents of school age who are exposed to more universalistic labor markets and who will fill the manual working class positions in those markets. The groups expected to have high delinquency rates according to this specification are urban working class males of high school age, especially if they have low intelligence, or live in slums, or are members of depressed ethnic minorities.

Stinchcombe (55, pp. 8-9) lists three causes of expressive alienation: (1) poor articulation between present activity and future status

increments, (2) claims to adult rights and to active ascriptive symbols of growing up, and (3) violent rejection of standards which punish and especially of the authorities who apply them.

A 1961 study by Kounin and Gump (34) attempts to assess the influence of punitive and nonpunitive teachers upon children's attitudes toward misbehavior. Children whose teacher was classified as punitive placed greater emphasis upon their misconducts. These children put great stress upon violations of school rules and classroom policies while children whose teacher was classified as nonpunitive placed greater emphasis upon failure to learn and losses in achievement. Further, the students of punitive teachers tended to show more aggressive behavior than the children of nonpunitive teachers. One might conclude that the behavior pattern of the teacher tends to be projected into or reflected from the pupil.

Brookover (7) in a study of teacher-student interaction in five high schools found that teachers who have a high degree of interaction with their students tend to be rated high as instructors by these same students and that students who have a high degree of interaction with their teachers tend to rate their teachers high as instructors. It may well be that one of the chief needs of the schools today is more teacher-student interaction. Concerning this Brookover (7, p. 287) says:

If we accept the theory that personality develops through interaction with other personalities, then it seems to the writer that the quality of person-person interaction is significant in determining the degree of influence or the effect which one personality has on another. Thus, aside from the data on teacher-pupil relations, this study suggests a method for developing a "measurement" of the effect of one personality in the development of another personality. Furthermore, for teachers already in service, this study would indicate that if they care to improve their ability to teach, they would do no harm, at



least, by improving their person-person relations with their students.

Kvaraceus (35) reports a study made of the values of youth, teachers, and parents in five communities. The study, conducted by the Lincoln Filene Center, Tufts University, pointed up three significant findings: (1) the greatest irritability on the part of parents and teachers to deviance was on the dimension of personal appearance (dress, coiffure, make-up); (2) teachers were closer to their students than the parents were; and (3) all three groups -- teachers, parents, students -- valued education highly, but the students complained bitterly that the school was a place of boredom (35, p. 586).

There is an abundance of opinion concerning pupil control and student reaction to the control measures employed. Muuss (40, p. 16), in a concise little book devoted to both theoretical and practical considerations regarding discipline, says:

If a teacher damages a student's self-respect, for example, he may close the door to any further help he might give him. Ridiculing or using sarcasm with a child in front of others may have the same effect. If the teacher damages the student's respect for him, the teacher will lose rapport with him. This may happen if the teacher makes humiliating comments to a student, if he loses his temper, or uses physical punishment. Cutts and Mosely report a case of a student who had received corporal punishment from the principal and even years later was unwilling to speak to him.

It is almost universally recognized that the school is an authoritarian institution, and perhaps this structure lends itself to autocratic control methods. As Getzels and Thelen (26, p. 56) say:

If one thinks of authority, control, and leadership in political terms, it is clear that the classroom group, at least in its formal aspects, is about as far from democracy as one can get. Not only do the students have no control over the selection of their leader, they normally also have no recourse from his leadership, no influence on his method of leadership beyond that granted by him, and no power over the

tenure of his leadership. There are very few working groups in our society in which these essentially despotic conditions are legitimately so much the rule.

Displacement of goals may result if pupil control and suppression become an obsession with the teaching and administrative staff.

Willower and Jones (60) in a 1962 study of a large junior high school found a sort of self-perpetuating system of "tough discipline" as the old hands among the teaching staff brought socializing pressures to bear on new-comers to the staff to maintain control of students as a matter of first importance.

Boardman, Douglas, and Bent (6, p. 471) say of the classroom teacher's handling of discipline:

Ordinarily he is too ready to employ punitive measures, since that sort of reaction gives greatest satisfaction to the irritated instructor. While corporal punishment has almost disappeared from the high school, the old idea of the superior efficiency of punishment for wrongdoing is still quite widespread, in spite of the strong trend in theory toward measures which do not jeopardize mutual good will.

Historically, coercion and even brutality have been associated with the American public school. Bany and Johnson (5, p. 6) point out that the problem of maintaining order and discipline was a chief concern of the teacher of more than a century ago:

For instance, Horace Mann told how discipline was kept in his time. He described a school of about 250 students where an average of 65 floggings were made each day.

The school referred to by Mann was perhaps an exceptionally coercive school because Parody (44, p. 12) quotes Mann as stating that corporal punishment was not used in about one-sixth of the schools:

The Model School connected with the Normal School at Lexington has been kept for five years. During all this time, there has been no place-taking in classes, no prize giving, and not a blow has been struck. Not less than five hundred schools (out of about 3,000) in the State

were taught last year without the infliction of a blow -- a far greater proportion than has ever existed before. And it is almost uniform testimony of the committees that the schools so kept have stood in the foremost ranks for regularity, diligence and good order.

Maintaining classroom control appears to be regarded as a quite serious problem for many teachers today. Bany and Johnson (5, p. 4) in discussing classroom control say:

When teachers state the nature of their most difficult task, they often say it is the problem of helping the children to develop and accept desirable standards of conduct. Generally they call this part of their job the "development of discipline," or "maintaining order," or "establishing classroom control." Preservice teachers worry most about this aspect of teaching, and many experienced teachers say this is the most difficult and often the most frustrating part of the teaching job. When discussing teaching performance, school administrators are apt to mention first the degree of success the teachers have attained either in establishing order or in developing procedures that contribute to desirable classroom behavior.

#### Summary

Many studies made during the last two decades point toward greater student interest, creativity, and achievement under indirect, flexible, warm friendly teachers (15) (16) (21) (46) (51). Other studies have indicated that poor teacher-student relations account for an increase in the number of dropouts and a decrease in the number of students planning to enter teaching (14) (17). Even the teacher's behavior pattern tends to be projected into the children's attitudes toward misbehavior (34). With few exceptions, the great body of research findings and expert opinion point toward beneficial effects of non-coercive control techniques and negative results from coercion. This study begins at this point and attempts to discover if normativeness and coerciveness of control are related to commitment and alienation, respectively.

## CHAPTER III

### METHOD

For the purpose of testing the hypothesis, instruments were constructed with which to measure the control pattern of the school and the involvement of the students. The section on instrumentation (p. 23) is devoted to a description of the development of these two instruments.

A stratified random sample of nine public high schools from the State of Oklahoma was sought. The reason for the use of stratified random sampling rather than simple random sampling was that there was a great chance of selecting only small, or very small, high schools because of the excessive number of such schools. Of the use of stratified random sampling Popham (45, p. 47) says:

In addition to random sampling methods, there are other ways of securing a representative sample of the population. If the population is composed of certain subgroups which may respond differently to the experimental variables, the researcher can better represent the population by drawing a stratified sample which represents such subgroups proportionately. ...

Having determined the proportions of subgroups to be represented in the sample, the researcher may then randomly draw each subgroup sample which makes the total sample a stratified random sample. Stratified random samples are particularly good representatives of the population.

From an examination of the 1967-68 Oklahoma Educational Directory (43), it was discovered that there were 457 public high schools staffed by fewer than 20 teachers, 55 high schools with 20 to 40 teachers, and 40 high schools with 40 or more teachers. In order to make the

subgroups proportional to the number of high schools in each stratum, it was ascertained that one school should be drawn from those having 40 or more teachers, one from those with 20 to 40 teachers, and seven from those with fewer than 20 teachers.

The name of each school was written on a small slip of paper, folded, and placed in separate containers according to its subgroup classification. The slips were then thoroughly mixed and selections were then drawn for each category. Three schools were drawn for each one needed with the excess number listed in order of being drawn and used for the purpose of back up schools to be used in case the ones originally drawn failed to grant permission for the study to be performed in them. Letters were mailed to principals of the high schools drawn for the sample, describing the study and requesting their permission for the study to be done in their school. A stamped, self-addressed envelope was enclosed for a reply. If a reply was not obtained within one week, a second letter was sent, and a letter was then sent to the first back up school. Within two weeks favorable replies had been obtained from eight schools. The last school was visited personally and permission obtained. The nine schools studied represented the geographical regions quite well with the exception of the southeast quadrant of the State.

Each of the schools was visited by the researcher during April and May, 1968, on dates which were mutually acceptable.

The procedure used varied but little in all of the schools except one. The Control Type Scale was distributed to the teachers first with a brief explanation of the purpose of the questionnaire and with the instruction that the teacher should complete it when some free time

became available and leave it with the office secretary. Complete anonymity was assured each teacher. If a teacher was absent on the day of the study, a copy was left in his mailbox to be completed upon his return, and a stamped, addressed envelope was left with the secretary for its return. Usable returns were obtained from 89 percent of the total number of high school teachers in the sample.

An attempt was made to select a sample of 25 percent of the students from each high school at random. In three of the high schools this was done by choosing every fourth name from the school enrollment records, after which the selected students were assembled for the administration of the Student Involvement Scale. In five of the schools the principal felt that such a procedure would be too disruptive of his schedule of classes, and in these schools the researcher was given permission to select sufficient classes and/or study halls to complete the sample of approximately 25 percent of the high school population. This was not, of course, a completely randomized sample, but inasmuch as the researcher was not familiar with the involvement of members of any of the classes selected, it approached randomization. In the last high school studied, the principal restricted the sample of students to those in study halls only. The researcher pointed out to him that such a procedure might bias the sample to the extent that it would reflect unfavorably upon his school by over sampling the alienated student. He felt, however, that too many other interruptions had occurred in his school during the closing weeks of the term and that he could not allow any classes to be disturbed. In an effort to compensate for having to administer the questionnaire to study hall students only, the researcher returned the following morning so that morning study halls could also

be used. Whether morning study hall populations are more committed than afternoon groups may be a moot point; however, this procedure did at least eliminate the use of the last hour study hall which is popularly regarded as the dumping grounds for the non-participant in school activities, as many schools schedule their athletic and/or activity periods at that time. Interestingly enough, the mean of the Student Involvement Scale for this school was not the lowest one in the sample.

Students in all schools were assured anonymity and were requested to give their sincere response to each item. Although no time limit was prescribed, almost all students completed the questionnaire within ten minutes. Students were requested not to confer with each other nor to look at anyone else's answers during the administration of the questionnaire. They were further instructed to turn their papers face down when they had completed them. With minor exceptions the students complied with these instructions.

#### Instrumentation

One of the chief problems was obtaining proper instruments with which to measure both teacher control type and student involvement. From a survey of the literature in these areas and an examination of Buros' Mental Measurements Yearbooks (9) (10) (11) (12) no instrument was discovered that was designed to measure either of these concepts. There were several instruments which were perhaps very capable of measuring coerciveness of teachers. Adorno's F scale of authoritarianism, for example, has been found to have a strong relationship to a custodial control ideology of mental hospital staff members (27). Also scores on Rokeach's Dogmatism Scale correlate significantly with those

from the Pupil Control Ideology instrument developed by Willower, Eidell, and Hoy (59, pp. 29-33), when measuring elementary and secondary teachers according to their educational attainments. A rank difference correlation of .70 is yielded by employing the Spearman Rank Order Correlation formula. This relatively high correlation may be deceptive, however, because the number of teachers in each educational category varied slightly because some of the teachers failed to complete usable questionnaires. In addition, the authors point out the mean scores of elementary and secondary teachers and principals differed significantly on the PCI Form but not on the Dogmatism Scale, thus indicating that the two instruments did not measure the same attitude (59, p. 25). The Dogmatism Scale and the F Scale, then, might have been taken as adequate measures of coerciveness of teachers, but this would have been a measure of only one end of the continuum. The question which would present itself if the F Scale indicated a near absence of authoritarianism is: Does an absence of authoritarianism in a respondent mean that he is oriented toward normative control? This question would have to be resolved in the affirmative before one could employ the F Scale to measure pupil control. Another question concerns the use of the Dogmatism Scale: Does an indication of open-mindedness in a respondent as measured by the Dogmatism Scale mean that that teacher would employ other than coercive methods of pupil control? This question also would require an affirmative answer before the Dogmatism Scale could be considered an adequate instrument for measuring teacher control all the way along the continuum from coerciveness to normativeness.

The PCI Form would perhaps have measured teacher control as well as any instrument extant. There were, however, two important reasons



for the decision not to use it: (1) The PCI Form was an attitude scale, and what was desired was an instrument which could order teachers along a continuum according to what action they would take in handling varying degrees of deviant behavior, an instrument that would classify teachers according to what they would do, not what they believed or what values they held; and (2) there was some disparity between the conceptual framework underlying both the custodialism-humanism continuum and the coerciveness-normativeness continuum. This disparity becomes evident in the placement of such control devices as sarcasm and ridicule, which the PCI Form would regard as custodial (59, p. 4) but which Etzioni (20, p. 5) would classify as normative. For these reasons the writer deemed advisable the development of an instrument which could measure a teacher's frame of action in pupil control rather than the teacher's belief system.

Next, an attempt was made to find a measure of student involvement. Student involvement, as defined operationally earlier in this study, is the orientation of the lower participants to the power applied by the organization to secure their compliance. The use of coercive power, according to Etzioni (20, p. 9), results in alienation (negative involvement) of the lower participants, and the use of normative power tends toward generating commitment (positive involvement) of the lower participants. The involvement of the lower participants, ranging all the way from alienation to commitment was the variable for which a measure was sought.

The researcher pointed out earlier (p. 23) that from a review of the literature and an examination of Buros' Mental Measurements Yearbooks (9) (10) (11) (12) no instrument was found with which to measure

student involvement.

There were two instruments mentioned in the Third Mental Measurements Yearbook which included, among other things, an indication of a student's like or dislike of school. One of these, the "Student Questionnaire" (9, p. 98) was said to consist of 100 items which:

... attempt to obtain data on feelings and attitudes of a student toward the curriculum, social life of the school, the administration, the teachers, other pupils, home and family, and a miscellaneous group of personal evaluations.

No validity or reliability coefficients were given for the "Student Questionnaire," and since it included measures of home and family influences and miscellaneous personal evaluations, it was deemed unacceptable for a measure of student involvement.

The other instrument, "The High School Attitude Scale," apparently was more of an indicator of morale of the student and his attitude toward the importance of a high school education. It was reviewed by Lee J. Cronbach, who said of it (9, p. 46):

This scale is one of the many Thurstone-type devices prepared by Remmers and his associates. It was constructed by the usual procedures and has the advantages and disadvantages to be expected in scales of this type. The scale requires little time and has adequate reliability for screening purposes. Parallel form correlations are .753 and .727. Validity, as in all self-report devices, is open to question, but there is no doubt that a pupil reporting an unfavorable attitude toward school should be singled out for study. The scale may be said to measure attitude toward the value and pleasantness of high school. Statements are general and do not permit diagnosing specific causes of low morale.

"The High School Attitude Scale" would perhaps be an acceptable measure of the positive end of the involvement continuum, especially its measurement of the student's attitude toward the value and pleasantness of high school. But there would remain a question of its ability to indicate the degree of alienation from the school. Another

shortcoming of this instrument for measuring commitment to the school is that an indication of a favorable attitude toward the value and pleasantness of high school is only a portion of that which comprises total involvement. In other words, "The High School Attitude Scale," does not include such things pertaining to commitment as the student's attitude toward the organization's power holders, the directives and sanctions of the organization, or the goals of the organization. For these reasons "The High School Attitude Scale" was deemed to be unacceptable for measuring involvement of the students.

Among the measurements mentioned in the literature were several measures of alienation and anomie. Gwynn Nettler (41, p. 670), for example, developed a 17-item scale which was designed to measure alienation from society. In their study of American labor unions, Kornhauser, Shepard, and Mayer (33) constructed a five-item scale to measure alienation within a labor union. In addition, Srole's Anomie Scale is widely used in sociological research to measure anomie, or normlessness.

These instruments, however, do not purport to measure commitment or positive involvement. At best, then, they would measure only the negative portion of the involvement continuum, and what was desired was an instrument which would not only dichotomize respondents as committed or alienated but would also order them along the involvement continuum from one polar type to the other. Therefore, the writer considered it advisable to construct an instrument with which to measure student involvement.

## Construction of the Control Type Scale

The Control Type Scale was developed for the specific purpose of measuring organizational control as defined and classified by Etzioni (20, p. 5).

Guttman scaling was proposed as the method for the construction of the Control Type Scale. (See Appendix E for a discussion of Guttman scaling terminology.) Ten behavior situations of increasing seriousness were seen as presenting the best possibility of forming a scale.

Attempts were made to provide as nearly complete descriptions of each incident as possible so that respondents might be free from doubt concerning background knowledge of each situation. Also, numerous response categories were provided for each situation, ranging all the way from ignoring the deviancy to using corporal punishment. These rather exhaustive incident descriptions and response choices were provided to minimize the number of teachers who might fail to answer an item, or might respond in a different manner from what they had intended, simply because they had not been given sufficient background information or a wide enough range of response choices.

The researcher discovered, however, in pretesting the detailed incidents, that the greater the amount of information given, the greater the number of questions and requests for additional information. The instrument originally had been five typewritten pages in length, and the writer realized that if the instrument became any lengthier, there would probably be associated with the increased length some undesirable properties. There might be, for example, a tendency for the teacher to refuse to respond, or to respond hurriedly and inconsistently, chiefly because of the amount of time required to analyze each incident. The

decision was therefore made that the focus in writing the incidents should be on a minimum description of each behavior situation and that the explanatory remarks should apply to all situations. The instructions were then modified to request respondents to assume average conditions to surround all incidents. Further, respondents were asked to assume that no stronger punishment than detention after school or spanking could be used. For each incident the teacher was then asked to respond to the following statement: "As punishment, I would give a student either detention or a spanking (or recommend that the student be given a spanking)." Response categories ranged from strongly agree to strongly disagree.

Descriptions of the ten incidents then followed, ranging all the way from quite minor offenses (whispering, chewing gum, and throwing paper) to rather serious acts of deviancy (destroying school property, bullying, displaying pornographic pictures to classmates, and drinking alcoholic beverages) with the other three falling in between the extremes (cheating on an examination, stealing money, and damaging or destroying property of other students).

The Control Type Instrument was administered to 100 secondary teachers in seven high schools in the North Central Oklahoma area. An attempt was made to secure complete participation, but because of teacher absence or unwillingness to cooperate the response was 86 percent.

The procedure for distributing the questionnaires to the teachers in four of the schools was to allow for identification of the teacher in such a way that anonymity could be assured each respondent. This partial identification was necessary so that the validity of the

instrument could be determined by the method of known groups (32, p. 453). An identification number was coded into each questionnaire, and as each questionnaire was distributed, a notation was made as to which teacher received which number. Later in the day, after all questionnaires had been picked up, a list of the teachers with their numbers corresponding to the numbers coded on their questionnaires was presented to each principal together with a description of the coercive teacher and the normative teacher. Each principal was asked to read the descriptions and then to select either two or three of his teachers (depending upon the size of his staff) whom he considered to be most nearly like the description of the normative teacher and a like number whom he considered most coercive. After he indicated his selections, the numbers were recorded and the teacher lists destroyed. In this way the principal's selections were known only to him, and the numbers he had selected were all that the researcher needed for identifying the known groups to be used later in testing the validity of the Control Type Instrument.

#### Control Type Scaling Procedures

Responses were dichotomized with those indicating disagreement with the use of corporal punishment; i.e., "strongly disagree," "disagree," and "undecided," forming the positive category, and the "agree" and "strongly agree" responses forming the negative category. The responses were then cut on IBM cards and sorted on the card sorter in the Sociology Department Statistical Laboratory at Oklahoma State University.

The scaling technique outlined by Robert N. Ford (48, pp. 273-305)

was employed to determine scalability. Six of the ten items met both the criterion of being between .20 and .80 level of difficulty (48, p. 279) and the criterion of being separated from an adjacent item by at least five percentage points (48, p. 285). Level of difficulty, as used here, does not refer to passing or failing an item in the usual sense of the term. A question is said to be easier than another in the sense that more respondents are willing to select a positive answer to it; for example, Item A was the easiest of the six because 74 percent of the teachers selected positive responses to it. For Item F only 22 percent indicated a positive response. The items selected and their level of difficulty appear in Table I.

TABLE I  
CONTROL TYPE SCALE ITEMS AND  
LEVEL OF DIFFICULTY

Item	Level of Difficulty
A	.74
B	.60
C	.48
D	.39
E	.33
F	.22

Additional criteria for determining scalability included the following:

Criterion I. Random Distribution of Error.

"Empirically, if a non-scale score contains over five percent of the sample population, the scale should be viewed with suspicion" (48, p. 294).

Criterion II. Non-Excessive Category Error.

"If the frequency of error in any column, as shown by boxes (25) through (36), is as much as, or more than, one-half the number of responses involved in that same column, the question is either not a suitable scale question or it has been improperly dichotomized" (48, p. 294).

Criterion III. Percentage of Error for Entire Scale.

"If total error is greater than 10 percent, the scale should be rejected" (48, p. 295).

Criterion IV. Percent of Error by Question.

"If the error by question is over 15 percent, the question is undoubtedly not suitable and the scale as it stands must be rejected" (48, p. 295).

The Scaling Sheet, which appears in Appendix D, reveals that the highest frequency in any non-scale score is 4 (unique score 27). With a total sample of 100 this frequency amounts to four percent, which is well within the limits of Criterion I.

Criterion II is also well met by the scale. The greatest proportion of error occurred in column E (positive category) and in column C (negative category). In each case there were less than one-fourth as many errors as there were total responses in the column.

The total number of errors was 44. With a total number of responses of 600, the percentage of error is .0733 which is well within the 10 percent limit established by Criterion III.

The largest percentage of error by question was .141 for question C (box 59), which also was below the 15 percent limit of Criterion IV.

To make sure that the coefficient of reproducibility of .93 was not spuriously high, a minimum marginal coefficient of reproducibility was computed according to the method suggested by Edwards (19, p. 192):

The minimum coefficient of reproducibility which it is



possible to obtain with a given set of statements having known frequencies in each of the categories of response can easily be determined. Simply find the proportion of responses in the modal category for each statement. If these values are then summed and divided by the number of statements, the resulting value indicates the minimum marginal reproducibility present for the set of statements.

The proportions of responses in the modal category for each statement for the six items in the Teacher Control Scale were: .74, .60, .52, .61, .67, and .78. Dividing the sum of these proportions by six yields a minimum marginal coefficient of reproducibility of .65. This relatively low minimum marginal coefficient of reproducibility indicates that the relatively high (.93) coefficient of reproducibility did not occur by chance.

The Control Type Scale, having met the criteria for Guttman scaling was deemed to be an acceptable instrument. The problem of validity, however, yet remained to be considered.

#### Validity of the Control Type Scale

Validity for the Control Type Scale was computed by the method of known groups as described by Kerlinger (32, p. 453). The known groups were chosen by the principal's selections based upon his judgment of his teachers. The procedure used in obtaining the known groups was outlined earlier in the present chapter in the section entitled, "Construction of the Control Type Scale."

Each principal selected two or three teachers in each category, the principals of the two smaller high schools selecting two teachers in each classification and the principals of the two larger high schools selecting three. Scale scores for these two groups were assigned, and a t test for the difference between the means of the two

groups was computed. A  $t$  value of 3.73 was yielded which is significant beyond the .005 level with 18 degrees of freedom. Principals' selections and relevant data are presented in Table II.

TABLE II  
PRINCIPALS' SELECTIONS OF KNOWN GROUPS FOR  
VALIDATION OF THE CONTROL TYPE SCALE

No.	Normative Selections Response Pattern*	Scale Type	Coercive Selections Response Pattern	Scale Type
1.	++++++	6	-----	0
2.	+-----	1	++-+++	6
3.	+-----	6	++-----	2
4.	+++--	3	++-----	2
5.	++++++	6	+++---	3
6.	+++---	3	-----	0
7.	++-+++	6	++-+---	2
8.	++++++	6	--+---	0
9.	++++++	6	-----	0
10.	++++--	5	++-----	2

$t = 3.73$                    $df = 18$                    $p = <.005$  (one-tailed test)

\*The response pattern consists of positive (+) and negative (-) responses to each of the last six items of Appendix A.

Concerning this method of validation Gekoski (25, p. 275) states:

Validity of tests can be demonstrated by showing how the average test scores for high and low criterion groups differ. In this method, all persons in a sample of present employees, for example, are tested. Then, according to a sound criterion, the people are assigned to the high or low group. ...

A  $t$  test is then computed for the difference between the means of

the two groups. This t value, Gekoski (25, p. 276) continues:

... is a comparison (a ratio) between the actual difference of means and the expected difference of means. If the ratio, t is two or more, it is called "statistically significant." This means that the actual difference in means is two times as large as the expected (by chance) difference. The difference is so large that it likely did not take place by chance; some other factor was operating to account for the large difference. By inference, the other factor is likely the characteristic being measured by the test. Thus, to demonstrate that the mean test scores of two differing criterion groups (one high and one low) are also different is to show that the test scores are related to the criterion. This is a popular approach to validation.

The problem of obtaining a sound criterion by which to assign members into the high and the low group is difficult to meet. There may arise a question as to whether the principals really know their teachers well enough to state which teachers are coercive and which teachers are normative in their pupil control methods. Another question might concern the size of the two known groups. Ideally, according to Gekoski (25, p. 276), it is better to have samples of about one hundred in size. The chief reason for limiting the size of the known groups was to allow the principals to select no more than 35 percent of their teachers for the two groups. The assumption was that if greater percentages than this were selected, the criterion of principal's judgment would become less accurate as he more nearly approached the average of his teachers. The small number in each sample, it was reasoned, would be compensated for by more accurate choices for the two groups by the principals.

Kerlinger (32, p. 448) points out that the single greatest difficulty of predictive validation is the criterion. On this topic he says:

Often criteria do not even exist or their validity is doubtful. Obtaining possible criteria may even be difficult. What criterion can be used to validate a measure of teacher

effectiveness? Who is to judge teacher effectiveness? Is getting the Ph. D. degree an adequate criterion of success in research? Is being a businessman a good index of interest in business? What criterion can be used to test the predictive validity of a musical aptitude test?

In an effort to secure a second criterion for the selection of a normative group and a coercive group for an additional test of validity, the researcher constructed a criterion instrument along with the Control Type Scale.

Forty-one items related to teacher control were written for pre-testing. These items ranged all the way from philosophical and theoretical considerations in pupil control to concrete situations. An attempt was made to phrase these items in the everyday language of the teacher rather than to employ pedagogic phraseology, because of the distinct possibility that many teachers might view such phrases as "integrated personality," "affective domain," and "normative appeal" as indicative of a progressive angle built into the instrument. The feeling that what was desired from them were responses in keeping with modern psychological insights might tend to cause teachers to respond along those lines rather than as they really believed. An equally plausible possibility, of course, is that the elimination of the professional phraseology might cause many teachers to intuit a traditional framework for the questionnaire and to slant their answers more in that direction. This latter possibility was not given much consideration, however, because the assumption was that a teacher who subscribed to modern educational and psychological principles would be less likely to answer in a direction opposite to his convictions than would a teacher whose pupil control philosophy was outdated.

The items for the criterion instrument were pre-tested and

criticized by a sample of graduate students from an advanced sociological research methods class at Oklahoma State University. As a result of this pre-testing, seventeen of the items were eliminated because they failed to meet one or more of the informal criteria for attitude statements mentioned by Edwards (19, pp. 13-14). The remaining 24 items were included for piloting along with the situations which were presumed to form the Guttman scale.

Responses were scored 5, 4, 3, 2, and 1 for answers of strongly agree, agree, undecided, disagree, and strongly disagree, respectively, for positive items. Scoring was reversed for negative items. Ten positive items and 14 negative items were included on the instrument for testing.

An item analysis was then performed on the 100 questionnaires using the facilities of the Oklahoma State University Computer Center and the item analysis program "Testat" developed by Veldman (56, pp. 170-176). Biserial correlations were obtained for each item, and eight items were rejected on the criterion that the obtained biserial correlation was not high enough to indicate that the item was discriminating among the respondents. Biserial correlations for the sixteen items retained for the final form of the instrument ranged from .33 to .64. Relevant information pertaining to the Criterion Instrument appears in Table III.

Validity for the Criterion Instrument was computed using the scores made on the 16 items only, and with the two groups being the same two selected by the principals as the most normative and the most coercive. A t test for the difference between the means yielded a t of 3.32, which, with 18 degrees of freedom, is significant beyond the .01 level.

Data pertaining to the validation of the Criterion Instrument appear in Table IV.

TABLE III  
CONTROL TYPE CRITERION INSTRUMENT  
BISERIAL CORRELATIONS

Item	Biserial Correlation	Item	Biserial Correlation
1.	.53	9.*	.37
2.	.58	10.*	.49
3.*	.41	11.	.59
4.	.58	12.	.59
5.*	.33	13.	.46
6.	.64	14.	.44
7.	.57	15.	.52
8.	.50	16.	.58

\*indicates positive items

Reliability for the Criterion Instrument was computed using the split-half technique and Guttman's formula for reliability (29, p. 69)

$$r_{x_o x_e} = 2 \left( 1 - \frac{\sigma_o^2 + \sigma_e^2}{\sigma^2} \right).$$

A split-half reliability coefficient of .90 was obtained.

With a significant known groups test for validity and a relatively high reliability coefficient, the Criterion Instrument was deemed to be acceptable as a criterion for selecting the high group and the low group from a new population for the purpose of cross-validation of the

Control Type Scale. This cross-validation was carried out on 124 teachers from nine schools studied for testing the hypothesis of the major study. The high group was composed of the 25 teachers who scored highest on the Criterion Instrument, and the low group was composed of the 25 who scored lowest on the criterion measure. A t test was then computed on the Control Type Scale scores of the two groups, yielding a t value of 3.10, which, with 48 degrees of freedom, is significant beyond the .01 level. Data relevant to the cross-validation of the Control Type Scale appear in Table V.

TABLE IV  
 PRINCIPALS' SELECTIONS OF KNOWN GROUPS FOR  
 VALIDATION OF THE CRITERION  
 INSTRUMENT

Teacher Number	Normative Criterion Score	Teacher Number	Coercive Criterion Score
P001	65	P005	50
P011	61	P009	38
B018	53	B015	27
B019	57	B027	40
B033	70	B034	35
H035	46	H036	41
H048	54	H042	43
H052	54	H049	44
T066	54	T067	61
T070	55	T069	59

t = 3.32

df = 18

p = <.01 (one-tailed test)

TABLE V  
 CROSS-VALIDATION OF THE CONTROL TYPE SCALE  
 USING GROUPS SELECTED BY THE  
 CRITERION INSTRUMENT

Control Type	N	Criterion $\bar{X}$	Control Type $\bar{X}$
Normative	25	61.52	2.48
Coercive	25	38.72	.96

$t = 3.10$        $df = 48$        $p = <.01$  (one-tailed test)

#### Construction of The Student Involvement Scale

The concepts of student alienation (previously defined as negative involvement) and student commitment (previously defined as positive involvement) need to be more closely defined and clarified before further discussion of a measurement for involvement is undertaken.

Negative involvement, or alienation, results from the illegitimate use of power or from the use of power which tends to frustrate the individual's need-dispositions (20, p. 15). Examples of the illegitimate exercise of power are the usurpation of authority rightfully belonging to another (as when one teacher disciplines the students under the supervision of another teacher) or the use of unreasonable power (as the assignment of a month's detention for whispering during a supervised study period). Examples of the use of power which tends to frustrate the individual's needs, wishes, or desires, are corporal punishment, forced segregation from the group, and detention. These examples are merely illustrative and are not intended to be exhaustive.

Alienation in its more extreme forms is closely akin to the



sociological concept of anomie, of normlessness, as introduced by Durkheim. The alienated student is anomic, or normless, to the extent that the values and goals of the institution, the elite structure, and the informal organization are not shared by him and to the extent that he disavows identification with them. The orientation of the alienated student is away from the organization, the school, its structure, its personnel, its goals, its values, and even from his fellow students.

The committed student, on the other hand, is oriented toward the institution and its personnel. He has internalized the institutional goals and norms, and he identifies closely with the informal organization, the student body. This close feeling of affection for the institution is not just a surface commitment; it leads the committed student to participate in the activities of the school, to uphold the honor and glory of the school and its traditions, and to give a part of his time and talents in service to the school.

For measuring student involvement a 20 item Likert type scale was proposed. Fifty-six items were written which were designed to tap the dimensions of student values and beliefs regarding the school as an institution, the goals of the school, the authority structure and personnel of the school, the traditions and heritage of the school, and the informal organization of the school. A careful scrutiny of the 56 items revealed several which were either ambiguous or which tapped a dimension not specified in the criteria, such as home life of the student or other out-of-school influences. This screening process reduced the number of items to 41. Comments and criticisms of students who helped with pre-testing the items were helpful in pointing out inadequacies in four additional items. Of the 37 items which remained, 21

were positive to the committed viewpoint and 16 were positive to the alienated viewpoint. The questions were written so as to encompass all segments of the school as an organization. Two questions pertained to the organizational goals; three questions to the extent of the student's identification with the elite structure of the organization; two with the student's identification with the informal organization; three with the student's participation in the activities of the school; five with the pervasiveness of the organization; six with the student's pride in his school; four with the feeling of personal loyalty, duty, or obligation toward the school; and twelve with a general affective feeling toward the school. The writer believed that the inclusion of items related to the many facets of the school as an organization would more nearly reflect the total commitment of a student to his school than would limiting the items to those which are apparently related to a more transitory, surface commitment; i.e., the school's athletic program and other extracurricular activities.

The 37 item form was then administered to a sample of 205 students in three area public high schools with enrollments ranging from 176 to 540. Efforts were made to obtain representative samples from each high school. In all of the high schools, however, the sample was not randomly selected; study hall populations were used. Morning study halls were used in two of the schools, and an early afternoon study hall in the third. This was done purposely to get away from the use of the last hour study hall, which, in popular understanding of the term, is a dumping ground for the non-athletic, non-participating, non-academic student. Whether the popular conception of the last hour study hall is true or not, it was avoided on the grounds that a population drawn from

it might be overly representative of the alienated student and on the further grounds that the members of the last hour study halls had an equal chance to be represented in a study hall scheduled earlier in the day. Similar conditions for completing the questionnaire prevailed in all three schools.

Responses were scored on the basis of five points for strongly agree, 4 points for agree, 3 points for undecided, 2 points for disagree, and 1 point for strongly disagree on items positive to the committed viewpoint. Scoring was reversed for negative items. For responses left blank, a value of 3 was assigned.

Responses were then cut on IBM cards and an item analysis was performed on each of the 37 items using the "Testat Program" developed by Veldman (56, p. 174). The facilities of the Oklahoma State University Computer Center were used in processing the program. Biserial correlations were computed for each of the 37 items.

In selecting 20 of these items for the final version of the Student Involvement Scale, two criteria were employed: (1) the size of the biserial correlation and (2) the balance of positive and negative items. As a result, eleven items were selected which were positive to the committed viewpoint and nine which were positive to the alienated viewpoint. This is in keeping with the suggestion of Edwards (19, p. 155) that:

Approximately half of the selected statements should be favorable so that the strongly agree response carries the 4 weight and the strongly disagree response the 0 weight. The other half should consist of unfavorable statements so that the scoring system is reversed. The advantage of having both kinds of statements represented in the final scale is to minimize possible response sets of subjects that might be generated if only favorable or unfavorable statements were included in the scale.

As a result of choosing items in harmony with both criteria, the final form of the Student Involvement Scale contained eleven items which were positive to the committed viewpoint and nine items which were positive to the alienated viewpoint. The biserial correlations ranged from .50 to .81. Data relevant to the 20 items comprising the Student Involvement Scale appear in Table VI.

TABLE VI  
BISERIAL CORRELATIONS OF ITEMS USED IN THE  
STUDENT INVOLVEMENT SCALE

Item	$r_{bis}$	Item	$r_{bis}$
*1.	.63	*11.	.73
2.	.68	*12.	.57
3.	.73	13.	.68
*4.	.55	14.	.81
*5.	.57	*15.	.50
6.	.57	*16.	.76
7.	.71	17.	.69
*8.	.73	*18.	.66
*9.	.71	19.	.71
10.	.53	*20.	.69

\*indicates item positive to the committed viewpoint

With a weight of 5 for a response of strongly agree and a weight of 1 for a strongly disagree response on items positive to the committed viewpoint, the possible range of scores was from 20 to 100 with the higher scores indicative of greater commitment and the lower scores of greater degrees of alienation.

### Validity of the Student Involvement Scale

The method of known groups as described by Kerlinger (32, p. 453) was used in validating the Student Involvement Scale. The cooperation of a high school not used in the development of the instrument was secured for the purpose of validation. Two groups of 25 students each were chosen by the guidance counselor, one group composed of students he judged to be most committed to the school and the other group composed of students he judged to be most alienated from the school. The 20 item Student Involvement Scale was administered to both groups with individual anonymity assured each respondent. The twenty-five questionnaires which were handed out to the alienated group by the counselor were coded by a special mark on the second page. The questionnaires given to the committed students were also coded on the second page so that both groups could later be separated and identified.

A t test for the difference between the means of two independent samples yielded a t value of 4.04. With 48 degrees of freedom a t value this large is significant beyond the .0005 level with a one-tailed test. Data pertaining to the validation of the Student Involvement scale are presented in Table VII.

TABLE VII

VALIDATION OF THE STUDENT INVOLVEMENT SCALE  
BY USE OF KNOWN GROUPS SELECTED  
BY THE COUNSELOR

Counselor's Judgment of Groups	N	S.I.S. Mean Scores
Committed	25	71.2
Alienated	25	58.2

t = 4.04      df = 48      p = <.0005 (one-tailed test)

#### Reliability of the Student Involvement Scale

Reliability of the Student Involvement Scale was computed using Guttman's formula for split-half reliability (29, p. 69). This formula, according to Helmstadtler (29, p. 69), does not require the assumption that the variances of the two half scores be equal, as the more popularly used Spearman-Brown Prophecy Formula does. The odd-numbered items were used for one of the halves and the even-numbered items for the other half. The reliability coefficient obtained was .93 rounded.

#### Cross-Validation of the Student Involvement Scale

Cross-validation of the Student Involvement Scale was performed in a large high school not a part of the population used anywhere else in the study. As with the earlier validations, the known groups method was used (32, p. 453). The procedure was the same as that used in the earlier validation with the exception that the vice-principal made the selections of the two groups. The resulting t value of 3.83 was

significant beyond the .0005 level using a one-tailed test and 48 degrees of freedom. Data relevant to the cross-validation of the Student Involvement Scale appear in Table VIII.

TABLE VIII  
CROSS-VALIDATION OF THE STUDENT INVOLVEMENT  
SCALE IN A LARGE HIGH SCHOOL

Principal's Judgment of Groups	N	S.I.S. Mean Score
Committed	25	79.32
Alienated	25	62.96

$t = 3.83$        $df = 48$        $p = <.0005$  (one-tailed test)

With relatively high internal consistency among the items, together with a relatively high reliability coefficient and highly significant statistical tests of validity, the Student Involvement Scale was considered an acceptable instrument for measuring student involvement in a high school for the purpose of testing the major hypothesis.

#### Scoring of Instruments

The Student Involvement Scale was scored on the basis of 5 points for a response most favorable to the committed viewpoint, 4 points for a next most favorable response and so on down to a 1 for a response most opposed to commitment. With 20 items comprising the Scale, the

theoretical limits of the scoring ranged from 20 for the most alienated to 100 for the most committed. The scores for the sample of students from each high school were then summed and divided by the number of respondents to obtain the mean involvement score of each high school.

The Teacher Control Type Scale was a Guttman type scale of six items. The teacher's response to a series of items in an ascending order of difficulty results in a pattern of response which can be classified according to the closeness with which it resembles a scale type. A perfect scale type 6 would result from normative answers to all six questions, and a perfect scale type 0 would result from all answers favoring the use of coercion. Scale type 1 occurs when only the least deviant act is handled by normative control methods, a scale type 2 when the least deviant act and the next least deviant act are handled normatively, and so on to the scale type 6 mentioned above in which all six acts of deviancy are handled by normative control means. Scale type errors occur when a respondent indicates he would use, for example, coercive control methods for a slight offense but for a more serious offense would use a normative appeal. The scale type of the instrument was taken as the measure of the teacher's control type. For teachers within a given high school the scale types were summed and then divided by the number of teachers responding from that high school. The mean score obtained was taken as a measure of the school's control pattern.

#### Summary

For the Control Type Scale Guttman scaling was used. A series of ten incidents of deviant behavior was presented to a sample of 100 public school teachers from seven area high schools. Responses were



dichotomized and cut on IBM cards. Using the procedure outlined by Robert N. Ford (48, pp. 273-305), a scale was obtained which satisfied the criteria of Guttman scaling. The coefficient of reproducibility obtained was .93 and the minimum marginal coefficient of reproducibility was .65. Validity was established by the method of known groups employing two different criteria for selection of the groups: principals' judgment and scores made on a criterion instrument developed alongside the Control Type Scale for this purpose. Significant t values were obtained for both tests. A cross-validation test was made using the criterion instrument for selection of the high and the low groups. A highly significant t value was obtained in the cross-validation test.

With the criteria for forming a Guttman scale met, and with all tests of validity being highly significant, the Control Type Scale was regarded as acceptable for measuring the independent variable, Control Type, in testing the hypothesis of the study.

Scoring of the Control Type Scale was accomplished by the usual Guttman scale procedures which categorize respondents according to the pattern of their responses. Scores range from 0 for a respondent with all negative answers to 6 for a respondent with all positive answers.

A twenty-item Likert scale was constructed for the purpose of measuring student alienation and commitment. Initially, 56 items which were thought to tap the dimension of involvement were written. Pre-testing procedures reduced the number of items to 37 which were incorporated into the pilot instrument. This form was administered to a sample of 205 high school students in three area schools.

An item analysis was then performed using the "Testat Program" constructed by Veldman (56, p. 174). The final 20-item version was

then constructed with two criteria guiding the choice of items: (1) the strength of the item's biserial correlation and (2) the balance of positive and negative items as suggested by Edwards (19, p. 155).

Validity of the Student Involvement Scale was tested using the known groups method described by Kerlinger (32, p. 453). A t test for the difference between the means of the two groups selected by a high school counselor yielded a value of 4.04 which was highly significant. A cross-validation was also found to be highly significant.

A split-half reliability coefficient of .93 was obtained using the Guttman formula for the computation (29, p. 69).

With these relatively high reliability and validity indicators, the Student Involvement Scale was considered acceptable.

The Student Involvement Scale was scored by the usual Likert scale method of allowing values of 1, 2, 3, 4, and 5 for responses of strongly disagree, disagree, undecided, agree, and strongly agree, respectively, for positive items. Scoring was reversed for negative items.

## CHAPTER IV

### RESULTS

The mean of Control Type Scale scores was previously defined as the school's control pattern, and the mean of the Student Involvement Scale scores was defined as the involvement found in the school. The means for both control pattern and involvement were calculated, and these data, along with other pertinent information, appear in Table IX.

TABLE IX  
CONTROL PATTERN AND STUDENT INVOLVEMENT  
OF SCHOOLS STUDIED

School	Enrollment	Number Teachers	Teacher-Student Ratio	Control Pattern $\bar{X}$	Student Involvement $\bar{X}$
A	141	8	1:17.62	1.71	79.60
B	65	8	1: 8.12	2.67	85.27
C	144	12	1:12.00	2.55	75.42
D	138	10.5	1:13.14	1.63	78.44
E	119	9	1:13.22	2.14	72.83
F	260	14.5	1:17.93	1.42	68.83
G	480	25	1:19.20	1.32	65.72
H	187	11	1:17.00	2.27	76.87
I	828	41	1:20.19	1.61	68.42

The nine schools were then rank ordered on the dimension of

control pattern with the most normative control pattern in position one, the next most normative control in position two, and so on until the most coercive school was placed in position nine. The student involvement mean scores were listed alongside the control pattern rankings. Student involvement scores were then ranked. These data appear in Table X below.

TABLE X  
RANK ORDER OF SCHOOLS ON CONTROL PATTERN  
AND STUDENT INVOLVEMENT

School	Control Pattern $\bar{X}$	Rank	Student Involvement $\bar{X}$	Rank
B	2.67	1	85.27	1
C	2.55	2	75.45	5
H	2.27	3	76.87	4
E	2.14	4	72.83	6
A	1.71	5	79.60	2
D	1.63	6	78.44	3
I	1.61	7	68.42	8
F	1.42	8	68.83	7
G	1.32	9	65.72	9

$$r_s = .72$$

$$p = <.05 \text{ (one-tailed test)}$$

The hypothesis tested in this study focused on the relationship of power and involvement. It could have been stated in general terms that involvement of the lower participants will vary as the control pattern of the school varies, which, in turn, could have been stated in more specific terminology in one of several forms: (1) schools ranking

lower than other schools in the sample on control pattern will tend to have student bodies which rank lower on involvement than other schools in the sample, (2) schools ranking higher than other schools in the sample on control pattern will tend to have student bodies which rank higher on involvement than other schools in the sample, (3) student commitment (positive involvement) will tend to vary inversely with the degree of coerciveness of the school's control pattern, and perhaps several others, all of which in the final analysis would have been relating control pattern and involvement.

The last mentioned hypothesis was tested, using the data gathered in the nine secondary schools. This hypothesis predicts higher involvement scores (greater commitment) as the school's control pattern reflects higher scores (lower degree of coerciveness), and lower involvement scores (lesser commitment) as the control pattern reflects lower scores (higher degree of coerciveness).

The hypothesis tested in this study was stated:

Student commitment will tend to vary inversely with the degree of coerciveness of the School's control pattern.

Spearman rank correlation (53, p. 204) was used to test whether there was a significant relationship between control pattern and student involvement.

Concerning the use of the Spearman rank correlation coefficient, Siegel (53, p. 202) says:

It is a measure of association which requires that both variables be measured in at least an ordinal scale so that objects or individuals under study may be ranked in two ordered series.

In this computation, the objects under study were the nine schools. The two variables for which a correlation was sought were

Control Pattern and Student Involvement.

The coefficient yielded was .717 or .72 rounded, which with an N of nine is significant at the .05 level (one-tailed test).

The hypothesis was considered tenable.

Other results appeared to be indirectly related to the central problem. The observation was made that the seven smaller schools in the study had smaller teacher-student ratios than the two larger schools. Although teacher-student ratio was not a variable under study, the writer thought that perhaps an examination of its relationship to both control pattern and student involvement might be of interest. Rank order correlations, using the Spearman formula, were computed for control pattern and teacher-student ratio, and for student involvement and teacher-student ratio. Pertinent data for both correlations appear in Tables XI and XII.

Significant correlations were obtained in both tests. The coefficient yielded for control pattern and teacher-student ratio was .83, which, with an N of nine, is significant beyond the .01 level using a one-tailed test. The coefficient for student involvement and teacher-student ratio was .73 which is statistically significant at the .05 level, again with an N of nine and using a one-tailed test.

#### Summary of Results

The hypothesis was constructed to examine the relationship of power and involvement in public secondary schools. It was stated:

Student commitment will tend to vary inversely with the degree of coerciveness of the school's control pattern.

Rank correlation, using the Spearman formula, was employed,

TABLE XI

RANK ORDER OF SCHOOLS ON CONTROL PATTERN  
AND TEACHER-STUDENT RATIO

School	Control Pattern $\bar{X}$	Rank	Teacher- Student Ratio	Rank
B	2.67	1	1: 8.12	1
C	2.55	2	1:12.00	2
H	2.27	3	1:17.00	5
E	2.14	4	1:13.22	4
A	1.71	5	1:17.62	6
D	1.63	6	1:13.14	3
I	1.61	7	1:20.19	9
F	1.42	8	1:17.93	7
G	1.32	9	1:19.20	8

$$r_s = .83$$

$$p = <.01 \text{ (one-tailed test)}$$

TABLE XII

RANK ORDER OF SCHOOLS ON STUDENT INVOLVEMENT  
AND TEACHER-STUDENT RATIO

School	Student Involvement $\bar{X}$	Rank	Teacher- Student Ratio	Rank
B	85.27	1	1: 8.12	1
A	79.60	2	1:17.62	6
D	78.44	3	1:13.14	3
H	76.87	4	1:17.00	5
C	75.42	5	1:12.00	2
E	72.83	6	1:13.22	4
F	68.83	7	1:17.93	7
I	68.42	8	1:20.19	9
G	65.72	9	1:19.20	8

$$r_s = .73$$

$$p = <.05 \text{ (one-tailed test)}$$

yielding a coefficient of .72. With an N of nine, a correlation coefficient of this size is significant at the .05 level using a one-tailed test. The hypothesis was considered tenable.

Rank correlations were also computed for the relationship of teacher-student ratio to both control pattern and student involvement. These computations yielded coefficients of .83 for control pattern and teacher-student ratio, and .73 for student involvement and teacher-student ratio. These correlations were significant at the .01 level and the .05 level, respectively.



## CHAPTER V

### SUMMARY AND DISCUSSION OF FINDINGS

An attempt was made in this study to relate the theoretical considerations of Etzioni's compliance relationships to public secondary schools. In summary, the compliance relationships theory states that as control methods used to secure compliance become more coercive, the involvement of the students becomes more alienative; and as control methods become more normative, student involvement becomes more committed. The hypothesis was therefore advanced that there would be an inverse relationship between the degree of commitment of the students and the degree of coerciveness employed by the teachers.

Instruments for measuring both teacher control type and student involvement were constructed, employing Guttman scaling for the Control Type Scale, and the method of summated ratings for the Student Involvement Scale. Validity for both instruments was computed, using the method of known-groups. Significant *t* values were obtained in each instance. Reliability for the Student Involvement Scale, using the Guttman split-half formula, was computed. A reliability coefficient of .93 was obtained. With these relatively high values for both reliability and validity, the Control Type Scale and the Student Involvement Scale were deemed acceptable instruments with which to measure the control used by the school and the involvement of the students.

Nine schools were selected by stratified random sampling procedures,

and both teacher control and student involvement were measured in each school. Spearman rank-order correlation was computed to ascertain whether there appeared to be a relationship between power and involvement in the public secondary schools. A correlation of .72 was obtained. A coefficient of this size was found to be significant at the .05 level of confidence. The hypothesis was considered tenable.

### Discussion

The reader should keep in mind that this was an exploratory study; it was simply an attempt to discover whether a relationship appeared to exist between power and involvement, not an attempt to isolate any causal factors if it was found that a relationship did exist. Indeed, even after noting a significant correlation between the two variables, one should not assume that the independent variable, control pattern, caused the relationship. Other variables, such as size of the school or amount of teacher-student interaction, could have exerted an influence upon both the control pattern of the school and the student involvement in the school. In fact, the seven smaller schools all ranked above the two larger schools on the student involvement mean scores, and only one of the seven ranked below the two larger schools in the control pattern. This should not be taken to mean that the more normative control patterns of the smaller schools resulted in the higher commitment of their students. The reason for their higher commitment may well have been related to the fact that for the most part the smaller school is isolated from other centers of activity and that many of the students of these small schools have little else

besides the school to command their loyalties or with which to identify themselves.

Another causal factor for both more normativeness and higher commitment in the smaller schools may have been the higher teacher-student interaction which is possible in the smaller school because of the lower teacher-student ratio. Along this line it is interesting to note that the teacher-student ratio was lower in the seven small high schools than it was in the two larger ones, although it was only slightly lower in three of them (A, F, and H), as indicated in Table IX.

The lower teacher-student ratio was to be expected in the smaller school, because the fulfillment of minimum accreditation requirements of the State Department of Education makes mandatory the services of several teachers, regardless of how few the number of students the school enrolls. What was not expected, however, was the apparently consistent relationship between low teacher-student ratio and normativeness of control. The relatively high correlation of .83 between these variables certainly indicates the need for further investigation.

Another unexpected finding was the relatively strong correlation of .73 between low teacher-student ratios and high student involvement. Perhaps this relationship exists because of the relationship between lower teacher-student ratios and normativeness of control. In other words, if normativeness of control is associated with lower teacher-student ratio and also with greater student involvement, then to the extent that the lower teacher-student ratio promotes normativeness it also promotes higher student involvement.

The apparent relationship between low teacher-student ratio and both normativeness of control and positive student involvement may be

misleading. Quite possibly, not the low teacher-student ratio but another variable closely related to a low teacher-student ratio may well be a causal agent related to both normativeness and positive involvement. Such a variable may very well be higher teacher-student interaction. Certainly, the lower teacher-student ratio would tend to promote higher teacher-student interaction.

Size of the school was not a variable under study, and the foregoing comments are not intended to cast either a favorable or an unfavorable light upon one size or the other. Their only purpose is to point out that other variables related to size of the school may have been influencing both control and involvement.

An interesting finding was the apparently consistent tendency toward coerciveness in the public secondary schools of Oklahoma. All nine of the schools' control patterns were below 3.00, the mid-point of a six-item Guttman scale. Scores above 3.00 are indicative of a tendency toward normativeness of control, and scores below 3.00 are associated with coerciveness of control. The mean Control Type Scale score for all 124 teachers who cooperated in this study was 1.75. Such a low mean indicates that the average Oklahoma teacher would employ coercive sanctions to control such deviant acts as throwing paper wads, cheating on an examination, stealing money from the teacher's desk, and defacing or destroying school property. Of the six incidents comprising the Control Type Scale (Items 17 through 22 of Appendix A) only the relatively minor offenses of whispering and chewing gum would be handled by normative control methods.

The apparent coerciveness of teachers may be related to an unusual situation which existed at the time the data were gathered. There was

much unrest during that time among Oklahoma's teachers in regard to the possibility of the imposition of professional sanctions within the State. The resulting uncertainty about their employment status for the ensuing year, together with conflicting loyalties to both their local school district and to the teaching profession, may have caused much anxiety along with feelings of insecurity among the teachers. During this time, Oklahoma teachers may have employed significantly greater coercive sanctions as an outlet for their feelings of uncertainty, anxiety, and insecurity.

A second reason for the apparent coerciveness of the teachers in the sample may be related to the religio-cultural setting of the study. In this region of the United States, there is a great emphasis upon religious values. The Biblical injunctions from the Proverbs regarding the chastisement of children are frequently applied quite literally. Teachers in Oklahoma, therefore, may simply be reflecting the "Spare the rod and spoil the child" philosophy which is commonly associated with fundamentalist Christianity. In addition, there appears to be a somewhat conservative bent among the citizenry of this area, and it may well be that the apparent coerciveness of Oklahoma's teachers is related to this tendency to cling to the old ways and to value traditional control methods -- which, of course, include the use of corporal punishment.

#### Recommendations

This study was approached with some misgiving on the part of the researcher in regard to the applicability of Etzioni's compliance relationships as far as the public schools are concerned. The writer

thought that the theoretical framework might be more nearly congruent with other organizations than with the public secondary schools, because the schools have many involvement facets which other types of organizations normally do not possess. Informal friendships and camaraderie, for example, are involvement facets common to almost all types of organizations. But in addition to these, the high school has a much more extensive area of activities which tend toward greater student commitment -- class projects, student government, school clubs, intramural contests and activities, interscholastic athletic contests, and league events. One might think, therefore, that regardless of the school's control pattern, student bodies would, as a result of these salient features of the high school, tend to exhibit a great amount of commitment to the school. If this rationale should hold, and particularly if it should be found that commitment to the school is more closely related to the activities of the school and to peer group relationships among the students than to the type of control, then serious doubt might be in order about the "fit" of the public high schools into the compliance relationships theory. In other words, the more salient involvement facets provided by the informal organization and the activities within the school may more than offset any tendency toward negative involvement generated by coercive control methods.

Uncertainty about the foregoing theoretical considerations prompted this study initially, and hesitancy to view the theory as applicable to the public secondary schools led to limiting the study to the one consideration -- ascertaining if a relationship between control pattern and student involvement existed in the public secondary schools. The writer reasoned that if a significant relationship between power

and involvement was found to exist, the compliance relationships theory would have further support. In addition, such a finding would indicate that greater confidence could be placed in the "fit" of the public secondary schools into the compliance relationships theory.

Although the relationship between power and involvement found in this study is not particularly strong, it is perhaps of sufficient strength to warrant further investigation. Such investigation should attempt to isolate causal factors related to either or both variables.

There might be some value and interest in attempting to discover whether such things as the time of year the data were gathered or the degree of success of the school's athletic teams appear to be related to either student involvement or teacher control. The common observation is that student spirit and commitment appear to be higher toward the beginning of the school term than later in the school year. Another common observation is that it is difficult to maintain high student morale during a losing athletic season, and especially so the longer the losing streak extends.

There are many other questions which a further study might answer. For example, are upperclassmen more or less committed to their school than freshmen and sophomores? Is there a significant difference between the involvement scores of different ethnic groups or social classes? Are girls more committed to their school than boys are? Are students in small schools more committed to their school than students in larger schools? Is size of the school related to the kind of control employed by the teachers? Does the control pattern vary during the school year? Do younger teachers employ more normative control techniques than do older teachers? Are teachers in areas which are generally recognized

to be conservative more coercive in their control than are teachers in more liberal regions? Does either teacher control or student involvement vary significantly between the traditional school with its highly structured organization of classes and scheduling and the progressive school with such flexible features as non-gradedness and modular scheduling? Is student involvement significantly different between students who are above the age of compulsory attendance and students who are legally required to attend school?

Answers to some or all of these questions may loom increasingly important on the educational horizon as educators seek ways and means of decreasing alienation and preventing dropouts while simultaneously fostering commitment and positive responses to the school.

Should further investigation lend support to the findings of this study, the implications for teacher selection and teacher training are clear. Selection criteria should place as much importance upon teacher control as upon other areas of competence. Furthermore, teacher training institutions might give serious consideration either to screening out coercive-oriented candidates or to providing extensive training in the use of normative control techniques.

A further implication concerns educational objectives. School officials charged with the responsibility of improving the curriculum might give serious consideration to the educational objectives of fostering commitment to the school and promoting positive responses among the students to the values and ideals of the school. The use of normative control techniques should tend toward the realization of these objectives.



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## APPENDIXES

APPENDIX A

CONTROL TYPE SCALE

Purpose Below and on the second page appear a number of statements about teacher-student relations and student control techniques. The purpose of this scale is to measure or identify the predominant types of control used today.

Your answers will remain confidential, and neither you nor your school will be identified in this study. You are not asked to supply your name; therefore, feel free to express your sincere beliefs about each statement.

Directions For the following statements there are no correct or incorrect answers. Choices range from one extreme to the other. Please indicate your sincere reaction to each statement by circling the appropriate response. If you wish to change an answer, draw an X through it and circle another choice.

The following abbreviations are used throughout:

SA - Strongly Agree  
A - Agree  
U - Undecided  
D - Disagree  
SD - Strongly Disagree

- SA A U D SD 1. To make it fair for all, the same offense must be punished in the same manner without exception.
- SA A U D SD 2. The students will soon run wild if they know there is no possibility of corporal punishment somewhere in the school.
- SA A U D SD 3. The threat of corporal punishment is of dubious value in handling disciplinary problems.
- SA A U D SD 4. It is best to have a rule to cover every conceivable offense.
- SA A U D SD 5. A shake of the head or a firm look is often sufficient to prevent a student's activity from becoming serious enough to be classified as a behavior problem.

- SA A U D SD 6. As a teacher, I appreciate a principal who is rather strict with students -- "hard as nails" if you prefer.
- SA A U D SD 7. A school should have definite policies setting specific punishments for various offenses.
- SA A U D SD 8. The best advice I could give a beginning teacher for handling discipline is to be sure to let the students know the first day of school that you are the boss, that you will tolerate no misbehavior, and then be sure to stick to it.
- SA A U D SD 9. A smile will accomplish more for a teacher in handling an annoying situation than a frown will.
- SA A U D SD 10. An appeal to a student's sense of honor is more effective in handling discipline than a resort to physical punishment.
- SA A U D SD 11. If a student misbehaves in my class, I waste no time in sending or taking him to the principal.
- SA A U D SD 12. In achieving good discipline, the best way is to let the students know exactly what will happen to them if they commit certain acts.
- SA A U D SD 13. If students know that the first offense will not be punished, they will usually go at least as far as that first offense.
- SA A U D SD 14. The concept of self-discipline may be all right as an ideal, but in practice it just doesn't work.
- SA A U D SD 15. Teachers and counselors who lend a sympathetic ear to the problems of students actually undo a great deal of the work that the firmer teachers have accomplished.
- SA A U D SD 16. School discipline would be more effective if it were based on the military model.

The following incidents represent deviant behavior sometimes found in our schools. They are not intended to represent behavior in any particular school, nor even behavior in general. The only purpose they serve is to aid in ascertaining which, if any, of the offenses most teachers would handle by using rather stern measures.

It is realized that only a bare sketch of each incident is given and that if complete background information were given, one might see each situation in a different light. You are asked, therefore, to assume that average conditions surround all cases.



With these incidents you are also to assume that neither suspension nor expulsion are allowed and that no stronger punishment than detention after school or a spanking can be used. In addition, the following statement will apply to each of the incidents below: "As punishment, I would give a student either detention after school or a spanking (or recommend that the student be given a spanking)."

To what extent do you agree or disagree?

- SA A U D SD 17. Whispering during supervised study after being told not to.
- SA A U D SD 18. Cheating on an examination by using crib notes.
- SA A U D SD 19. Destroying or defacing school property.
- SA A U D SD 20. Throwing a paper wad at another student.
- SA A U D SD 21. Chewing gum in class (assuming that the student knows you do not allow it).
- SA A U D SD 22. Stealing money from your desk.

## APPENDIX B

### STUDENT INVOLVEMENT SCALE

Purpose Below and on the following page are a number of statements about how a student might feel toward school. The purpose of this questionnaire is to attempt to discover how the students of today feel about their schools.

You are not asked to give your name, and no one will question you concerning any of your answers. Therefore, please try to express as accurately as possible your true feelings about each statement.

Directions Place a circle around the response which comes nearest to expressing your sincere attitude. If you should wish to change an answer, place an X over the circle and draw a new circle around the response you meant to mark.

Example: (SA) (X) U D SD O. I hope to be successful in life.

In the example, the student marked "Agree" to the statement, but later realized that he really intended to circle "Strongly Agree". An X was placed over the incorrect response, and a new answer was made.

The following abbreviations will be used:

SA - Strongly Agree

A - Agree

U - Undecided

D - Disagree

SD - Strongly Disagree

- SA A U D SD 1. There is a quality about this school that makes me feel good all over when I think about it.
- SA A U D SD 2. I take very little pride in this school.
- SA A U D SD 3. I feel that I really and truly, deep-down, hate this school.
- SA A U D SD 4. In our school learning is really enjoyable.

- SA A U D SD 5. I would be very proud to escort a visitor around this school.
- SA A U D SD 6. In general, I think the teachers of this school are too critical, too strict, and too distant in their relations with the students.
- SA A U D SD 7. I will be glad to get away from this school.
- SA A U D SD 8. I know that no other school could ever replace the warm spot I hold in my heart for this school.
- SA A U D SD 9. If I should hear someone make a slighting remark about this school, it would make me feel hurt inside.
- SA A U D SD 10. Most of the students at this school are a bunch of squares.
- SA A U D SD 11. If I had my choice of going to any school, I would choose this one over all the others.
- SA A U D SD 12. It gives me a feeling of pride and happiness to see our school's colors used as a color scheme by other groups or organizations.
- SA A U D SD 13. This school is more like a prison than an educational institution.
- SA A U D SD 14. I do not feel that I owe this school any of my personal loyalty.
- SA A U D SD 15. I take enough pride in the appearance of this school that I don't litter the floors or hallways.
- SA A U D SD 16. A memory I think I shall always treasure is the feeling of being a part of this great school.
- SA A U D SD 17. I would make no special effort to return to an alumni reunion at this school five years from now.
- SA A U D SD 18. I consider myself a citizen of this school with certain obligations to it.
- SA A U D SD 19. This school is definitely a disappointment to me.
- SA A U D SD 20. There is a quality about this school -- call it a spirit or a personality -- that I hold dear to my heart.

APPENDIX C

SAMPLE RUN SHEET\*

SCALE IDENTIFICATION

Name of Scale: Teacher Control Type N=100  
Set No. 1 Date: April 15, 1968

Ques.	F		E		D		C		B		A	
Col.	13		20		12		14		16		11	
Code	SA	U, D	SA	U, D	SA	U, D	SA	U, D	SA	U, D	SA	U, D
	A	SD	A	SD	A	SD	A	SD	A	SD	A	SD
WS	0	32	0	16	0	8	0	4	0	2	0	1
US												
0	78		63		53		31		19		13	
1												6
2										12	0	
3												12
4								22	4		3	
5												1
6										18	1	
7												17
8						10	6		3		2	
9												1
10										3	0	
11												3
12								4	1		0	
13												1
14										3	0	
15												3
16				15	7		3		3		2	
17												1
18										0	0	
19												0
20								4	1		1	
21												0
22										3	0	
23												3
24						8	6		2		2	
25												0
26										4	0	
27												4
28									2	0	0	
29												0
30										2	0	
31												2
32		22	4		1		1		1		1	
33												0
34										0	0	
35												0
36								0			0	
37												0
38											0	
39												0
40						3	1		0		0	
41												0

## Sample Run Sheet (Continued)

Ques.	F 13		E 20		D 12		C 14		B 16		A 11	
Col.	SA	U, D	SA	U, D	SA	U, D	SA	U, D	SA	U, D	SA	U, D
Code	A	SD	A	SD	A	SD	A	SD	A	SD	A	SD
WS	0	32	0	16	0	8	0	4	0	2	0	1
US												
42										1	0	
43												1
44								2	2		0	
45												2
46										0	0	
47												0
48				18	0						0	
49												0
50											0	
51												0
52											0	
53												0
54											0	
55												0
56						18	4		4		1	
57												3
58										0	0	
59												0
60								14	0		0	
61												0
62										14	0	
63												14

WS--Weighted Score

US--Unique Score

\*The Sample Run Sheet is adapted from that by Ford. (48, pp. 287-8)

APPENDIX D

SCALING SHEET\*\*

SCALE IDENTIFICATION Name of Scale: Teacher Control Type N-100  
Date: April 15, 1968

(1) Questions Order No.	(2) Percent Positive	(3) Card Col.	Positive Categories (4) Codes (5) Weights		Negative Categories (6) Codes (7) Weights		
A	25	74	11	SD, D, U	1	A, SA	0
B	30	60	16	SD, D, U	2	A, SA	0
C	28	48	14	SD, D, U	4	A, SA	0
D	26	39	12	SD, D, U	8	A, SA	0
E	34	33	20	SD, D, U	16	A, SA	0
F	27	22	13	SD, D, U	32	A, SA	0

(8) Unique Score	(9) F.	(10) Total Errors	Errors in Positive Categories						Errors in Negative Categories						
			(11) A	(12) B	(13) C	(14) D	(15) E	(16) F	(17) A	(18) B	(19) C	(20) D	(21) E	(22) F	
0*	13	0													
1*	6	0													
2	0	1													
3*	12	0													
4	3	1			3										
5	1	1			1						1	1			
6	1	1								1					
7*	17	0													
8	2	1				2									
9	1	1				1									
10	0	2													
11	3	1				1						1			
12	0	2													
13	1	1									1				
14	0	1													
15*	3	0													
16	2	1						2							
17	1	1						1							
18	0	2													
19	0	1													
20	1	2			1			1							
21	0	2													
22	0	2													
23	3	1						1					1		
24	2	2				2		2							
25	0	2													
26	0	2													
27	4	1										4			
28	0	1													
29	0	1													
30	0	1													

## (Scaling Sheet--Continued)

(8) Unique Score	(9) F.	(10) Total Errors	Errors-Pos. Categories						Errors-Neg. Categories																	
			(11) A	(12) B	(13) C	(14) D	(15) E	(16) F	(17) A	(18) B	(19) C	(20) D	(21) E	(22) F												
31*	2	0																								
32	1	1							1																	
33	0	1																								
34	0	2																								
35	0	1																								
36	0	2																								
37	0	2																								
38	0	2																								
39	0	1																								
40	0	2																								
41	0	2																								
42	0	3																								
43	1	2				1/3		2/3			2/3		1/3													
44	0	3																								
45	2	2						1		2				1												
46	0	2																								
47	0	1																								
48	0	2																								
49	0	2																								
50	0	3																								
51	0	2																								
52	0	3																								
53	0	2																								
54	0	2																								
55	0	1																								
56	1	3				1/2	1/2	1/2		1/2	1/2	1/2														
57	3	2																								
58	0	2																								
59	0	1																								
60	0	2																								
61	0	1																								
62	0	1																								
63*	14	0																								
Total Freq.	(23) 100	<b>COMPUTATION OF ERROR</b>																								
Frequency of error	(24)	Total In Positive Categories						Total In Negative Categories																		
Number of Responses Involved	(25)	(26)	(27)	(28)	(29)	(30)	(31)	(32)	(33)	(34)	(35)	(36)	(37)	(38)	(39)	(40)	(41)	(42)	(43)	(44)	(45)	(46)	(47)	(48)	(49)	
Total Errors by Question	44	0	0	4 1/2	7 1/2	8	3 1/2	1 1/2	7	9 2/3	1 1/2	1 1/2	0	600	74	60	48	39	33	22	26	40	52	61	67	78
Percent of Error	(50)	(51)	(52)	(53)	(54)	(55)	(56)	(57)	(58)	(59)	(60)	(61)	(62)													
		1 1/2	7	14 1/2	8 5/8	9 1/2	3 1/6	.0733	.015	.07	.142	.088	.093	.032												

\* Perfect Score

\*\*The Scaling Sheet is adapted from that of Ford. (48, pp. 289-90)

## APPENDIX E

### GUTTMAN SCALING TERMINOLOGY

A brief explanation of the terminology used in Guttman scaling generally, and especially in the Ford (48, pp. 273-305) procedure for determining scalability, is presented to aid the reader in understanding some of the technical aspects of Guttman scaling. The researcher felt that this approach would be preferred over that of interrupting the narrative of the construction of the scale with technical explanations. Should the reader desire a more detailed explanation of Guttman scaling, he should consult the references cited.

Guttman scale -- a scale the pattern of responses to which indicates the placement of the respondent according to the degree of favorableness or of unfavorableness toward the dimension being measured. Named for Dr. Louis Guttman who pioneered the development of this particular kind of scale, the Guttman scale is also referred to as a cumulative scale (19, p. 172).

Weighted score -- a score which increases in a simple geometric progression: 1, 2, 4, 8, 16, etc. The weight of 1 is assigned to the "easiest" question, 2 to the next easiest question, and so on until 32 is assigned to the most difficult of the six items in a six-item scale.

Unique score -- a score obtained by summing the weighted scores for positive responses to items in a scale. Ford (48, p. 285) describes the manner in which the weighted score is used in obtaining the unique score:



A given score can be obtained from such weights in one way only. Because of this property of a geometric progression, we can state in advance exactly what responses a person selected if he has a given score, and we can say how many scale errors, if any, have occurred. If a man checks the positive category to the "easiest" question (the question with the highest per cent of positive responses), he gets 1 point. If he is positive on the next "easiest" also, he gets an additional 2 points. A positive reply to the "third-easiest" question gives him 4 more points, for a total of 7, and so on. In a six-question scale, such as is being tested in our example, a man who accepts all positive replies would have a perfect score of 63 points. At the other extreme is a perfect negative score of "0." Since any number between 0 and 63 is a possible combination, we have 64 scores in all ( $2^6 = 64$ ).

Scale error -- an inconsistent response to an item in a scale.

Concerning the scale error, Ford (48, p. 279) says:

An individual will frequently select the "hardest" question, perhaps the next hardest, and the next. Then suddenly he may reject an "easy" question. We say a "scale error" has occurred. It happens sometimes that more than one scale error will be observed in the replies of an individual.

Perfect scale scores -- scores which do not contain inconsistent responses, or errors. Concerning the occurrence of perfect scale scores among the unique scores, Ford (48, p. 285) says:

Only seven scores in sixty-four will be perfect scale combinations (0, 1, 3, 7, 15, 31, and 63). All others will contain errors. For instance, a person with 62 points must have accepted the five "harder" questions but then rejected the positive reply on the 1-point, or "easiest" question. In terms of scale theory, he can be classified with those who accepted all six, for he most nearly resembles them. But he has made an error, for he accepted all of the five "harder" questions.

Non-scale score -- a unique score which indicates the presence of one or more errors. Fifty-seven of the sixty-four unique scores in a six-item scale will be non-scale scores (48, p. 285).

Scale type -- the pattern of response to a scale. Perfect scale scores occur when the respondent gives consistent answers to all items.

Random distribution of error -- a phrase referring to the even distribution of non-scale scores. Ford (48, p. 294) states the criterion for random distribution of error:

Errors should be distributed randomly throughout the scores, with no more than 5 per cent of the sample population being contained in any single non-scale score.

Category error -- the total of errors made in either the positive or the negative category of each question (48, p. 294).

Coefficient of reproducibility -- a coefficient yielded by subtracting from unity the percentage of error for the entire scale (19, p. 183).

VITA

Ivan Roy Sanders

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Thesis: CONSTRUCTION OF INSTRUMENTS FOR MEASURING TEACHER CONTROL AND STUDENT INVOLVEMENT AND AN EMPIRICAL TEST OF ETZIONI'S COMPLIANCE RELATIONSHIPS IN PUBLIC SECONDARY SCHOOLS

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