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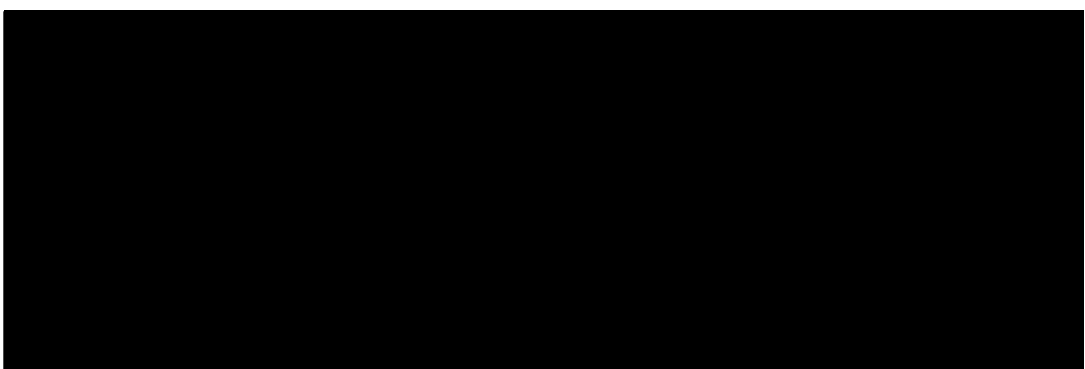NAME OF SUPERVISOR/*NOM DU DIRECTEUR DE THÈSE*_____Dr. Jack Martin_____

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AN EMPIRICAL ANALYSIS OF KOUNIN'S TEACHING VARIABLES

by

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B.Ed., University of British Columbia, 1963

M.Ed., University of British Columbia, 1972

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ABSTRACT

Educational research in the area of classroom management has shown that specific group management strategies result in greater student work involvement and less off-task behavior. This study examined the relationship of discrete teacher skill variables to student work involvement and student deviancy in regular grade eight classrooms. Using Kounin's group managerial approach and Borg's operationalization of Kounin's variables, this study replicated and extended Kounin's study by examining the four teacher variables of withitness, transitions, learner accountability, and group alerting in relationship to the two student variables of work involvement and deviancy in grade eight English and Social Studies classes.

Video-tapes of fifteen teachers and their students in active recitation lessons were collected and coded. Total skill frequencies were determined for each variable and correlational hypotheses based on Kounin were examined through the calculation of Pearson Product Moment correlation coefficients among all variables. The major correlations between teacher and student variables obtained in the study were compared to those obtained by Kounin.

The results indicated more similarities than differences between the two studies: however, most of the correlations in this study were not statistically significant. In agreement with Kounin, learner accountability and group alerting correlated significantly and negatively with student deviancy. In marked contrast to Kounin's findings, the variable withitness correlated negatively with freedom from deviancy and work

involvement.

The discrepancy between this study and Kounin's study is explained on the basis of a methodological critique of Kounin's measurement of the withitness variable. Implications of the study for both educational research and educational practice are discussed.

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CHAPTER I

STATEMENT OF THE PROBLEM

The intent of this investigation is to examine the relationship of discrete teacher skill-variables to student work involvement and student deviancy in regular grade eight classrooms. The issue of how teaching behaviors affect student learning is crucial to establishing and maintaining a positive learning environment. How does the activity of teaching affect the classroom learning process? What teacher behaviors are effective in promoting active learning involvement and productive classroom interactions? Work involvement and student deviancy (as defined by Jacob Kounin, 1970) may be viewed as indicators of student learning in that the student who appears cognitively and behaviorally engaged in prescribed learning tasks is more likely to be learning than the apparently off-task or deviant student.

From the 'hickory stick' and the 'dunce cap' to applied psychology and the quasi-democratic classroom, educationists have strived for increasingly humane, rational, and effective methods to facilitate individual and group behavior conducive to formal learning and social growth. Self-direction, responsibility, and co-operation are goals the classroom learning environment ideally promotes. The students' primary task is to learn how to learn, and the teacher's task is to facilitate this learning while recognizing that s/he is continually modelling attitudes and behaviors that have impact on student learning. There is no random behavior in the classroom - all behavior - both student and teacher - has cumulative impact relative to the foregoing educational.

goals. Helping the student to internalize discipline, control, and self-direction demands that the teacher respond differentially to student needs and behaviors. To do this, a teacher requires both under-standing and methodology. The attempt of this study is to examine natural teacher behaviors in relation to Kounin's (1970) group managerial approach using Borg's (1973) operationalizations of Kounin's variables. Can teacher behaviors be identified according to Kounin's model? Does Kounin's approach accomplish what it claims to accomplish? Which teacher behaviors are most effective in promoting work involvement and in reducing pupil deviancy?

Kounin's group managerial approach has evolved out of 15 years of research into the dynamics of discipline. Kounin (1970) identified and coded teacher desist strategies (teacher response to student off-task behavior), but none predicted success in controlling student deviancy nor inappropriate behavior. Kounin (1970) then turned to investigating teacher managerial strategies and consequent student behaviors. This latter study concluded that class management techniques outweigh discipline specific techniques in controlling student behavior and in consistently promoting work involvement.

This study replicates and extends Kounin's work by looking at two student variables (deviancy and work involvement) and four teacher variables (withitness, transitions, learner accountability, and group alerting) in grade eight classrooms. The validity of Kounin's findings for intermediate and junior high school has not been previously examined, and the assumption that strategies that work in elementary contexts will also work in secondary contexts requires empirical testing.

Through observation of naturalistic teacher-student interactions in grade eight classrooms, this study examined the following questions: Are teacher behaviors which are consistent with Kounin's model (1) positively correlated with student work involvement, and (2) negatively correlated with student deviancy? More specific hypotheses are stated at the conclusion of Chapter II.

CHAPTER II

REVIEW OF THE LITERATURE

General Philosophy Of The Teaching Skills Or Group Managerial Approach

Kounin's teaching skills or group managerial approach derives from a sociological perspective of the classroom in which the issue of control or management is related to the classroom group. The classroom is viewed as an aggregate of groups and subgroups, and management is related to group interaction - the individual being viewed as an integral member of a group. The classroom group is organismic and dynamic and its source of control is external - the teacher is the group control mechanism. An understanding of group interaction, and the possession of group management skills are crucial teaching requisites as everything the teacher plans or does affects all the students in the classroom group.

Kounin's Research

Kounin's sociological (group) bias is apparent in his early experimental work (Kounin and Gump, 1958) when he tried to test out the "ripple effect" (or contagion) of a teacher desist on audience students - a desist being any action a teacher takes to return a student from off-task to on-task behavior. This study involved observing 26 kindergarten teachers and their students for the first four days of the school year. Fifty-one trained university students (with high inter-rater reliability) used specimen records and multifaceted category systems to record desist incidents on audience children (children other than the child to whom the desist was directed.) Specifically, the observers recorded: "(1)

what the deviant child and the audience pupil were doing immediately before the teacher intervened; (2) the full content and manner of the desist and the deviant's immediate reaction; and (3) a two minute record of the behavior of the child nearest the deviant who was aware of the desist and who was not himself a target of the desist" (Kounin, 1970, p. 8).

The desists were scored for teacher clarity, firmness and roughness. Clarity refers to the amount of information the teacher put into the desist - i.e., specifying the deviant and/or the deviancy, providing a way of stopping the deviancy, and/or specifying a reason or group standard (Kounin, 1970, pp. 8-9). Firmness "refers to the degree to which the teacher packs an 'I mean it' and a 'right now' quality into the desist ... Firmness is added if she has a 'follow through' and looks at the deviant until he stops; if she walks toward the child during the desist; if she speaks emphatically; or, if she touches or 'guides' the child to the proper behavior ..." (Kounin, 1970, p. 9). Roughness "refers to desists in which the teacher expresses anger or exasperation. These consist of desists containing angry looks or remarks, threatened or actual punishments, or physical pressure beyond firmness" (Kounin, 1970, p. 9).

The results showed that (a) teacher desist clarity results in increased conformity among audience students; (b) desist firmness related to greater conformity among deviantly linked audience students; and (c) desist roughness induced behavior disruptions among audience students. These findings were strongest for the first day of school. This study did not relate the desist concepts to desist success, and in a further

non-observational study, Kounin and Gump failed to replicate the ripple effect findings for higher grade levels.

Kounin, Friesen and Norton (1966) videotaped thirty predominantly middle class suburban classrooms, grades one through five, for one half day each. The classrooms were selected on the basis that they contained at least one diagnostically determined, emotionally disturbed child. The results indicated that the management of emotionally disturbed children is no different from the management of non-disturbed children.

Kounin, Friesen and Norton (1966) expanded the Kounin and Gump (1958) desist concepts and explored them in relationship to work involvement and deviancy in recitation and seat work settings for both grade level and emotional disturbance of students. The study involved 30 teachers and their students, grades one through five, for one half day in each classroom. Instrumentation included videotape recordings and transcripts, multifaceted category systems and sign systems, and time units and phenomenal units.

The discipline or desist incidents were coded for teacher clarity, firmness, intensity, focus, and child treatment. Clarity and firmness are previously defined in the discussion of the kindergarten study. Intensity "refers to the intensity of the stimulus quality of the desist: its attention demanding properties and its potential to intrude into the awareness of audience children" (Kounin, 1970, p. 67). Focus "refers to what the teacher concentrates upon in her desist order" - stopping the deviancy ('stop talking') or work induction ('work on your arithmetic') (Kounin, 1970, pp. 67-68). Child treatment refers to "how the child was treated in the desist. Does the child see the teacher as being for or against him in this incident?" (Kounin, 1970, p. 68).

Student response to the teacher desist was coded for the target
student (coded as desist success) and for the audience students (coded
for no reaction, behavior disruption, increased conformance, increased
nonconformance, and ambivalence). Audience students were also coded as
deviantly or nondeviantly linked at the time of the desist incident.

The results showed that teacher desist strategies (clarity, firm-
ness, intensity, focus, and child treatment) were unrelated to desist
success, student work involvement, and student deviancy. These results
also held for emotionally disturbed children and for seat work settings
as well as recitation settings. (Seat work refers to the entire class
or a subgroup of students engaged in seat work while the teacher works
with them by circulating, supervising, and occasionally commenting.
Recitation refers to the teacher working with the entire class or a sub-
group in a teacher-led lesson that involves teacher lettering and.
question-answer interchanges between the teacher and the pupils.) Kounin
reported high reliability for the desist coding judgments (inter-coder
agreement averaged 90%), but none predicted success in controlling
deviancy. Kounin concluded that

> there is no relationship between the qualities of a
> teacher's desist techniques and the degree of her
> success in handling a deviancy

and further that

> the techniques of dealing with misbehavior, as such,
> are not significant determinants of how well or poorly
> children behave in classrooms, or with how successful
> a teacher is in preventing one child's misbehavior
> from contaging others (Kounin, 1970, p. 70).

In a follow-up activity to the Kounin et al (1966) study, Kounin
(1970) re-examined the videotapes from the 1966 study, keeping the

conclusions of that study firmly in mind. His re-examination of the
1966 videotape data led him (Kounin, 1970) to move gradually, but
completely, away from the desist focus which typified his work to this
point; and to develop four new conceptions of important teacher variables
he called: (1) withitness (the teacher behaviorally demonstrates that she
knows what is going on); (2) overlappingness (the teacher simultaneously
attends to two issues); (3) transition smoothness (the absence of dangles,
flip-flops, and thrusts in the instructional process); and (4) programming
for learning related variety in seat work (Kounin, 1970, p. 74). When
the 1966 videotapes were recoded for these variables, the following
general patterns emerged: (1) all of the teacher variables (withitness,
overlappingness, transitions, and variety) correlated positively with
student work involvement and freedom from student deviancy; (2) there
were significant positive correlations between the behavior scores of the
disturbed and the non-disturbed children; and (3) correlations between
the teacher variables and children's behaviors were in the same direction
and approximate magnitude for both the disturbed and non-disturbed
children (Kounin, 1970, p. 75). Kounin concluded that teacher behaviors
that related to general classroom managerial success applied to both normal
and disturbed students. Kounin also found significant differences
between student behavior scores for seat work and recitation and
differences in teacher styles associated with managerial success in seat
work and recitation (Kounin, 1970, p. 75).

With these findings, Kounin was now prepared to launch what has
become a classic study in classroom group management. In this larger,
well-controlled study, Kounin (1970) again studied teacher group manage-

ment concepts in relation to student deviancy and work involvement in recitation and seat work settings. Forty-nine teachers and their students in grades one and two were monitored for one full day in each classroom. Videotape recordings and transcripts, multifacet category systems and sign systems, and various phenomenal units and time units were used. Eight group management concepts were examined and found to be related to student work involvement and deviancy, with several correlations greater than $\pm$ .50. The eight teacher variables were: withitness, overlappingness, smoothness, momentum, group alerting, accountability, valence and challenge arousal, and variety.

Withitness was defined as a teacher communicating to her students by her actual behavior that she knows what is going on or has "eyes in the back of her head." "With it" teachers will "pick up the first signal of deviancy, will clamp on the proper pupil, will ignore a minor mis-behavior in order to stop a major infraction ..." (Dunkin and Biddle, 1974, p. 149). Withitness was judged for teacher target errors and timing mistakes. Overlappingness "refers to what a teacher does when she has two matters to deal with at the same time. Does she somehow attend to both issues simultaneously or does she remain or become immersed in one issue only ..." (Kounin, 1970, p. 85). Overlappingness was judged as "some overlapping" (the teacher attends to two issues at the same time) or "no overlapping" (the teacher pays attention to only one issue at a time). Desist incidents and child intrusion incidents (the student approaching the teacher who is involved in an ongoing activity) were judged for overlappingness. Smoothness referred to the absence of teacher behaviors that interfere with the flow of academic events, i.e.,

"stimulus-boundedness (coded when the teacher paid attention to irrelevant or intrusive details rather than the subject at hand); thrusts (coded when the teacher burst in on children's activities with an order, statement, or question); dangles, (coded when the teacher started, or was in, some activity and then left it 'hanging in mid-air' only to be resumed after an interval); truncations (coded when an activity was left 'hanging in mid-air' and was not resumed) and flip-flops (coded when the teacher terminated one activity, started another, and then initiated a return to the activity that she had terminated" (Dunkin and Biddle, 1974, p. 150). Momentum referred to the absence of teacher behaviors that slow down the pace of a lesson, such as "overdwelling (coded whenever the teacher overdwelt on pupil behavior, a subpoint rather than the main point, physical props rather than substance, or instructions or details to the point of boredom); and fragmentation (coded when teachers dealt with individual pupils one at a time rather than the group, or props one at a time rather than en masse)" (Dunkin and Biddle, 1974, p. 151). Group alerting "refers to the degree to which a teacher attempts to involve nonreciting children in the recitation task, maintain their attention, and keep them 'on their toes' or alerted" (Kounin, 1970, p. 117). Accountability "refers to the degree to which the teacher holds the children accountable and responsible for their task performance during recitation sessions" (Kounin, 1970, p. 119). Valence and challenge arousal referred to direct attempts by the teacher to get the students involved in, and enthusiastic about, learning. The teacher was monitored for (1) "showing genuine zest and enthusiasm; (2) making a statement pointing out that the activity possesses special positive valence ...; or, (3) making a statement point-

ing out that the activity possesses some special intellectual challenge."
(Kounin, 1970, p. 130).

The two student measures, deviancy and work involvement were
monitored for target students using 12-second intervals and three facet
categories. For work involvement, students were coded as being "(1)
Definitely in the assigned work...., (2) Probably in the assigned work ..,
or (3) Definitely out of the assigned work" (Kounin, 1970, pp. 77-78).
For deviancy, the coding judgments were (1) not misbehaving, (2) engaging
in mild misbehavior, or (3) engaging in serious misbehavior.

In addition to the teacher managerial variables and the two student
measures, Kounin categorized all activities as being either seat work or
recitation.

The results indicated that the relationships among these variables
differed between recitation and seat work settings. Withitness showed
the strongest relationships to work involvement (r=.615) and deviancy
(r=.531) in recitation settings, and to deviancy (r=.509) in seat work
settings. Overlappingness correlated significantly with withitness
(r=.598) but not with deviancy (r=.362) in recitation settings and .379
in seat work settings, or work involvement (r=.460) in recitation settings
and .259 in seat work settings). Variety induced work involvement
(r=.516) in seat work; and both smoothness and group alerting were
significantly related to work involvement in recitation (r=.601 and .603
respectively). Overall, the management concepts predicted work involve-
ment in recitation, but were less effective in predicting involvement
during seat work. Kounin concluded that 'successful' teachers used
classroom management techniques that kept students productively involved

and therefore not engaged in deviancy. These teachers were successful because they had fewer instances of deviancy – not because they were more adept at handling deviancy after it occurred.

Overall, Kounin's 1970 research is original in its conceptualizations, sophisticated in its methodology, reports high inter-rater reliability, and demonstrates strong relationships among the student and teacher variables examined. A major difficulty encountered in further validating, replicating, and extending Kounin's research revolves around the cumbersome manner in which Kounin operationalized his variables for quantification purposes. This difficulty may have something to do with the fact that Kounin's work hasn't been extensively replicated to date. Fortunately, Walter Borg (Borg, 1973) has provided more useful empirical operationalizations of Kounin's variables. It is these operationalizations which are used in the present study.

Borg's Operationalization of Kounin's Variables

Kounin's description of his group management concepts tends to be in broad, general categories which are operationally vague. Walter Borg (1973) developed discrete teaching skill subsets for Kounin's management concepts (withitness, transitions, learner accountability, and group alerting), thus giving them greater specificity. In his protocols, Borg describes each variable, states the underlying principle behind its use, and introduces behavioral indicators or discrete skills which define the management concept as applied in the classroom.

The term withitness was coined by Kounin (1970) to refer to the teacher's behavior that demonstrates that she knows what is going on in

the classroom. More precisely, Kounin defines withitness as "... a teacher communicating to the children by her actual behavior that she knows what the children are doing ..." (Borg, 1973). Kounin limited his measurement of withitness to desist events that the teacher employed in the classroom. A desist is some action that a teacher takes to stop a child's misbehavior. The important factors in teacher desists appear to be (1) whether the desist is directed at the correct target, i.e., the child who initiated the deviant behavior and (2) whether the desist was timely, i.e., applied before the deviant behavior spreads to other children or increases in seriousness.

The principle underlying withitness is that teacher behaviors which demonstrate that a teacher knows what is going on in the classroom tend to increase student work involvement and decrease deviant or disruptive student behavior.

In Borg's work, the discrete skills of desist, suggesting alternative behavior, concurrent praise, and description of desirable behavior are behavioral indicators of withitness.

Desists demonstrates withitness when the teacher tells (a) student(s) to stop a deviant or off-task behavior. In order to be effective, the desist must be directed at the student who initiated the deviant behavior and must be administered before the deviant behavior spreads or becomes more serious. It must be timely and on target (D+). If the desist is not timely and on target, it is a negative desist referred to as (D-).

Suggest alternative behavior is operationally defined as a teacher action which diverts the disruptive or off-task student by suggesting that s/he engage in an alternative behavior - e.g., one of two whispering

students can be asked to pass out papers or perform some other task—which removes the student from the off-task situation.

Concurrent praise is defined as any teacher comment which, in the presence of the off-task behavior of one student, praises the opposite on-task behavior as displayed by another student. Concurrent praise should be specific in identifying the behavior that is being praised - e.g., "John, I like the way you got out your books and started working" (sitting next to John is Jim who is drawing pictures).

Describe desirable behavior is a teacher action with which the teacher describes, or has the off-task student describe, the desirable behavior which the student usually exhibits or should exhibit in place of on-going deviant or off-task behavior. Describing desirable behavior can take several forms, i.e.:

i.   the teacher can state the rule without directing it to any particular student;
ii. the teacher can direct the rule to the deviant student;
iii. the teacher could describe the student's usual behavior; or
iv. the teacher can ask the target student to describe the desirable behavior or state the rule.

The second teacher variable, transitions, refers to classroom management techniques used by the teacher to move the class from one activity or topic to another. These techniques may facilitate or interfere with a smooth, effective transition. Stimulus-boundedness, thrust, and flip-flop are negative transition indicators as defined by Borg (1973).

Stimulus-boundedness is defined as the teacher being deflected from the main activity and reacting to some unplanned, irrelevant, external stimulus that is unrelated to the on-going activity. Off-task behaviors, P.A. announcements, absentee slips, pick-up and delivery of office notices

are not coded. The external stimuli that the teacher reacts to and is deflected by are in his/her control to ignore until a more appropriate time, e.g., stopping an explanation or a teaching train-of-thought to react to paper and books on the floor, or to a student's untidy written performance; noticing that the plants are wilting from lack of water or that a row of desks is out of line, etc. The positive indicator is the delayed response which waits until a natural break occurs in the class-room activity. Here the teacher refuses to be side-tracked in order to maintain continuity.

Thrust is defined as the sudden and inappropriate teacher inter-ruption of student activity. The teacher bursts in suddenly on the students' activities in such a manner as to indicate that her/his own intent of thought was the only determinant of his/her timing and point of entry. S/he is responding to an internal stimulus - s/he thinks of some question or statement that should be raised and interjects it. Additional teacher directions or additional points that should have been raised prior to student activity commencement frequently constitute thrusts. The timely interjection is the appropriate and non-disruptive introduction of additional teacher information to the student activity.

Flip-flop is operationally defined when the teacher starts a new topic and having gotten into the new topic returns to make some comment or give additional instructions about the topic just concluded. The flip-flop (FF-) occurs only near transition points when one topic is being concluded and a new one is being introduced. The opposite behavior is a smooth transition (FF+) in which the teacher fully completes the initial topic before moving onto a new topic.

A third Kounin teacher variable, <u>learner accountability</u>, is based on the principle that when the teacher uses specific strategies to hold the student accountable for his/her work during the class, these management strategies will increase the student's work involvement and reduce the frequency of disruptive behavior. An essential element in all of the accountability·strategies is that the teacher must show clear and unmistakable signs of listening and checking. Going through the motions of the accountability techniques is not enough, unless the teacher clearly attends to the resultant pupil remarks or behaviors. For example, if the teacher asks the students to put out work so that s/he may check it, s/he should obviously check the work, commend work that is particularly good, and ask questions if students have wrong answers or have failed to follow instructions. Goal directed prompts, work showing, and peer involvement are the discrete skills which Borg used to define learner accountability.

Goal directed prompts are teacher questions aimed at focussing the student on the steps involved in reaching his/her goal. Such questions usually deal with either work plans or work progress. Work plan prompts are aimed at getting the student to think through parts of the work process or work strategy s/he will follow, and include teacher questions, such as: "What is the first thing you should do next on this assignment?" or, "How would you start on this new activity?" Other goal directed prompts are aimed at learning about the students' progress on a work activity. Examples of work progress prompts are: "John, how far have you gotten on your project?" or, "How did you do yesterday in your library search?" or, "How are you progressing on your science report?" or, "What is the first thing you should do after I hand back the test papers?" or,

"Are you going to be able to finish in time for your report next week?"
Goal directed prompts result in the student talking about his work plans
and work progress.

Work showing includes a number of strategies that the teacher can
use with both groups and individuals in order to learn how well students
are progressing in their work activity, e.g.:

i.   students holding up work for the teacher to check;
ii.   students reciting in unison to teacher question;
iii.   visual checking – the teacher circulates and checks the work
       of non-reciters while a given student is reciting;
iv.   the teacher requires a student to demonstrate and checks his/
       her performance;
v.   using check-points – the teacher sets up certain check-points
       in order to systematically check the progress of the class.
       e.g., "When you've finished Section A, bring it up for me to
       check before you go on to Section B."

Thus in work showing, the teacher holds the students' accountable by
having them show work or demonstrate knowlege or skills.

Peer involvement is the teacher use of individual and group
strategies to involve a student (or students) in the work of a peer by
working with or responding to the peer's recitation or work activity. An
individual strategy brings other students into the recitation with cues
such as, "Bill, you and Jim work the problem together and be ready to
help each other out" or, "Mary, listen to John's answer and be ready to
add to what he says." Group strategies require the group to be involved
in the performance of an individual student, e.g., "How many of you agree
with John's answer?" or, "I see some of you agree and some of you don't
agree with what Mary has said. What do you think about Mary's answer,
Jim?" Another group strategy involves team games in which one team
responds to and or adds to another team's answer.

The fourth Kounin teacher variable which Borg operationalized,

group alerting, is based on the principle that teacher behaviors designed to keep students alert will increase on-task behavior and reduce deviant behavior in the classroom. A positive group alerting behavior is one that tends to keep children alert while a negative alerting behavior tends to reduce the involvement of non-reciters in a recitation session. Questioning technique, recitation strategy, and alerting cues are the three behavioral indicators subsumed by group alerting.

Questioning technique is operationally defined positively when the teacher frames a question, pauses for a minimum of two seconds, and then calls on a reciter (QT+), rather than naming a reciter and then giving the question (QT-). When a teacher frames the question and pauses before calling on a reciter, several desirable outcomes occur, e.g., all students are motivated to think of an answer to the question; the pause gives them time to think of an answer; and the pause invites them to think about the question.

Recitation strategy is positively operationalized when the teacher calls for student reciters in a random manner in order to maintain student alertness and on-task behavior (RS+). (RS-) is characterized by calling on students in a predetermined sequence, i.e., round robin, only raised hands (volunteers), or calling on the same few students most of the time.

Alerting cues (AC) are used by the teacher to remind students in the recitation group that all are likely to be called on. Alerting cues can be used to make students aware of the ground rules the teacher will use in the recitation, e.g., "During this question period I will first ask the question, then I will pause for a few seconds, and then I will call

for one of you to give me an answer. Since you have no way of knowing who I will call on, each of you should use the time when I pause to think of an answer." Alerting cues call the students to pay attention and to think of an answer to every question since they may be called on next. Borg's work in successfully operationalizing the Kounin teaching variables of withitness, transitions, learner accountability and group alerting is an invaluable contribution to further research on Kounin's group management methods.

Other Research Using Kounin's Variables

Kounin's work has been well referenced (Dunkin and Biddle, 1974) and it has had considerable theoretical and practical impact for both its method and findings, however further empirical research with his variables has been almost nonexistant. Only two published accounts of empirical research with Kounin's variables have appeared since his major seminal work.

Brophy and Evertson (1976) used 40 hours of both high and low inference classroom observation instruments to replicate Kounin's 1970 study with extensions to student learning gains. This four year study involved 165 second and third grade teachers and their students in self-contained classrooms, from both low and high socio-economic class levels, and segregated and mixed racial groups. Kounin's variables associated with successful classroom management were also found to be correlated with success in producing student learning gains. Specifically, Brophy and Evertson reported strong support for withitness and transition behaviors. "With it" teachers ran smooth, well-paced lessons with few

interruptions. Their students worked consistently at their seat work which was individualized to their needs. Student coping mechanisms were available, i.e., a system of peer tutors for help; assignments were out-lined and displayed; specific times for teacher help was available; the teacher would systemmatically check work by going around the room; and activity options were available for students who finished assignments. With it teachers monitored their classrooms by maintaining a classroom view from reading groups and by regularly moving around the room. With it teachers had fewer instances of student deviancy and when it did occur they had fewer instances of timing errors, target errors, or negative overreactions, thus providing additional support for Kounin's "ripple effect." Of the three desist withitness errors, the with it teacher was most frequently coded for overreaction, if coded at all. With it teachers were found vigilant and quick to intervene but they were not critical or negativistic to their students. In low SES schools they were found to be warmer and more affectionate to children than less successful or less with it teachers.

Kounin's smoothness variable showed up in the successfully managed classrooms particularly during activity transitions. Teachers with smooth transitions had organized monitor systems and a few good classroom rules regarding behavior. At the beginning of the year, often in quasi-democratic rule making sessions, the rules were developed and their reasons clearly explained to the students. Less well-organized teachers tended towards chaotic transitions characterized by student confusion and out of seat behavior that gave rise to deviancy. These teachers tended to have no rules, ad hoc rules, or too many rules without student

comprehension and motivation.

Marshall Arlin (1979) studied Kounin's concept of transition in relation to student disruptive behavior during transition and non-transitional (class) time. A transition was defined as a "teacher initiated directive to students to end one activity and to start another" (Arlin, 1979, p. 42). The study involved fifty pre-service teachers on practicums and their students in grades one through nine, in five naturalistic, unobtrusive experiments (one original and four replications). The experiments were conducted over two academic years with the teachers being observed twice at different times of the day, with different subjects, in different settings, five days apart. The first thirty minutes of each observation was used as the basis for data comparison. The experimenter observed the number of off-task students during transitions by scanning the classroom six times in ten second sweeps for one minute. An off-task student was recorded only once in the one minute scan. On-task behavior was defined as doing what the teacher requested and off-task behavior was doing anything contrary to the teacher request. Behaviors had to be visibly off-task before they were categorized.

The results showed that transitions significantly affect student off-task behavior, with more disruptions occurring during transitions (6.95) than during non-transition time (3.76). Structured (smooth) transitions had less off-task behavior (4.43) than unstructured transitions (9.38). Smooth transitions did not differ significantly from non-transition time in terms of student disruptions.

Since neither the Brophy and Evertson nor the Arlin research studies

significantly differ in their findings from Kounin's own research, an

adequate summary of research on Kounin's variables is provided by Duncan

and Biddle (1974). Duncan and Biddle reviewed Kounin's research and

commended him for his honesty and dedication as a researcher for changing

his approach to the problem of student deviancy. They also commended him

for his subsequent success in solving the problem by conceptualizing

teacher management behaviors as catalysts for student work involvement or

deviancy. They found Kounin's statistical data analysis thorough in the

determination of variable relationships, some of which they noted, were

rare correlations ($\pm$ .50) for a social science. Specific strengths noted

included:

> "The concepts used are striking and original; the methods
> employed for classroom observation were sophisticated;
> reliability for coding judgments was high; and above all,
> the relationships found between teacher and pupil variables
> were strong. Among weaknesses: the methods used for
> operationalizing concepts in research were complex; class-
> rooms studied have so far been confined to lower grades;
> and so far Kounin has not chosen to study, or at least to
> report findings for process occurrence or presage-process
> or process-product relationships. Thus we cannot know yet
> whether Kounin's variables are related to such outcomes as
> pupil achievement or attitudes, or whether teachers can be
> taught to recognize, change, or 'improve' their managerial
> skills." (Duncan and Biddle, p. 161).

Duncan and Biddle acknowledged that Kounin's research "appears

reasonably free from commitments" and they suggest that his research

holds "considerable promise for the eventual improvement of classroom

teaching" (p. 161).

Summary and Hypotheses

The purpose of this study was to extend and examine the relationship

of discrete teacher managerial skills to student work involvement and

deviancy at the secondary level. Research at the primary level has substantiated that Kounin's class management skills (particularly withitness and transition behaviors) are associated with successful class-room management and with success in promoting student learning gains (Brophy and Evertson, 1976). In an in-depth analysis of one teacher skill variable - transitions - further research confirms that unstructured transitions are correlated with an increase in student deviancy at both the elementary and junior secondary levels (Arlin, 1979).

Using Borg's operationalizations, the present study examined Kounin's teacher management skills in relationship to the junior secondary student. In searching for the validity and applicability of these teacher skills at the grade eight level this study tested the following hypotheses:

A. Teacher behaviors which are consistent with Kounin's model should be:

   1. positively correlated with student work involvement and

   2. negatively correlated with student deviancy.

B. Specific correlation predictions are:

   1. The correlation between withitness and student disruptive behavior should be significantly negative.

   2. The correlation between negative transitions and student disruptive behavior should be significantly positive.

   3. The correlation between learner accountability and disruptive behavior should be significantly negative.

   4. The correlation between group alerting and student disruptive behavior should be significantly negative.

   5. The correlation between withitness and student work involvement should be significantly positive.

   6. The correlation between negative transitions and student work involvement should be significantly negative.

   7. The correlation between learner accountability and student work involvement should be significantly positive.

8. The correlation between group alerting and student work involvement should be significantly positive.

CHAPTER III

METHOD

Subjects and Setting

The study took place in 15 grade eight English and Social Studies classrooms in a mixed urban/rural school district. The classrooms represented both low and middle class socio-economic backgrounds. All 15 teachers volunteered to participate in the study on the basis of discussions of the project and its goals between the experimenter and all the grade 8 teachers in the junior secondary schools. Nine male teachers and six female teachers, ranging in age from 23 years to 64 years, with a mean age of 31.9 years, participated in the study. Their teaching experience ranged for 0 years to 31 years with a mean of 7.6 years of experience overall.

General Procedures

After the study was discussed with the teachers and the experimental classrooms were determined, the experimenter and a video-technician spent one full period in each classroom during which time the project was explained to the students and their support requested. A video-camera and microphone were set up during these pre-taping visits as a familiarization procedure for the students and teachers. The video-camera was positioned in a back corner of the classroom and angled to obtain the maximum coverage possible of both the teacher and the students. The camera was tripod mounted and remained stationary in point of view for the duration of the taping. A microphone was hung from a lighting fixture

about halfway in the classroom in order to pick up both teacher and student comments.

Twenty minute videotapes of recitation lessons in English and Social Studies were collected over a three week period (one tape in each classroom). The lessons recorded were all morning classes in English or Social Studies, and were predominantly active recitation lessons. The taping sessions began when the lessons commenced. Once collected, all videotapes were keyed and coded by the experimenter.

Coding The Teacher Variables. The teacher behavior variables were defined according to the Borg protocols (Borg, 1973) in terms of discrete teaching skills. The following table breaks down each of the major teacher variables into the specific skills which were coded. Total frequencies of occurrence for each skill were determined for each of the 15 videotaped lessons. Within each teacher variable, specific skill frequencies were summed to provide overall variable frequencies (See Appendix C). Table 1 portrays the specific skill composition of each of the teacher variables recorded.

Table 1

Teacher Skill Variables

Variable	Discrete Skills
1. Withitness	1. Desist 2. Suggest alternative behavior 3. Concurrent praise 4. Description of desirable behavior
2. Transitions	1. Stimulus-boundedness (SB-) 2. Thrust (T-) 3. Flip-flop (FF-)

Table 1   continued

Teacher Skill Variables

Variable	Discrete Skills
3. Learner Accountability	1. Goal directed prompts 2. Work showing 3. Peer involvement
4. Group Alerting	1. Questioning technique 2. Alerting cues

Table 2 shows the operational definitions and criteria used as a basis for coding each of the discrete teaching skills.

Table 2

Discrete Skills Coding Criteria

Variable	Discrete Skill	Coding Criteria
1. Withitness	1. Desist	:coded when a teacher told an off-task student or group of students to stop off-task behaviors.
	2. Suggest alternative behavior	:coded when a teacher action diverted a deviant student by suggesting that s/he engage in an alternative on-task behavior.
	3. Concurrent praise	:coded when a teacher praised specific on-task student behaviors while ignoring concurrent student deviancy.
	4. Describe desirable behavior	:coded when (i) a teacher stated a classroom rule without directing it to any

Table 2　continued

Discrete Skills Coding Criteria

Variable	Discrete Skill	Coding Criteria
		particular student; or (ii) a teacher directed the rule to a deviant student; or (iii) a teacher described a student's usual behavior; or (iv) a teacher had a student state a rule or describe a desirable behavior.
2. Transitions	1. Stimulus-boundedness (SB-)	:coded when a teacher reacted to some external stimulus unrelated to the on-going activity. :desists, P.A. notices, absentee notices, principal messages, were not coded.
	2. Thrust (T-)	:coded when a teacher burst into student activities in response to an internal teacher stimulus without regard for timing and point of entry. :information interjections and additional directions given after students were actively engaged were coded.
	3. Flip-flop (FF-)	:coded when a teacher started a new activity without bringing closure to a previous activity, and then returned to the previous activity.
3. Learner Accountability	1. Goal directed prompts	:coded when a teacher asked questions which focussed on a student's goals, work plans, or work progress. :included material checks, teacher initiated questions, and teacher attention to student answers.

Table 2   continued

Discrete Skills Coding Criteria .

Variable	Discrete Skill	Coding Criteria
	2. Work showing	:coded when a teacher had students display work for checking or orally respond to a teacher question about an assignment.
	3. Peer involvement	:coded when a teacher used individual or group strategies to involve student(s) in the work of a peer.
4. Group Alerting	1. Positive questioning technique	:coded when a teacher framed a question and paused for a minimum of two seconds before calling on a reciter, or when one or more students responded before a full pause was possible. :coded whether one or more students responded.
	2. Alerting cues	:coded when a teacher's verbal signals reminded students that they would likely be called on for information. :desists were not coded here unless they embodied a specific alerting cue.

The discrete teaching skills were frequency coded on a simple coding grid which permitted easy tabulation of total frequencies within each lesson across each of the four skill areas (See Appendix A).

Coding The Student Variables. The student behavior variables, deviance and work involvement, were defined according to Kounin's (1970) second videotape study. Deviant behavior was defined "as having direction

and purpose (intentional and with knowledge that it is deviant), and as being against the teacher, another student, or some reasonably important convention of classroom behavior" (Kounin, 1970, p. 78). Work involvement referred to the student-task relationship and was determined according to overt student-task related behaviors. "Managerial success in a classroom is defined as producing a high rate of work involvement and a low rate of deviancy in academic settings" (Kounin, 1970, p. 63).

The student variables were coded (1) when the designated class work began, (2) in ten second intervals, and (3) in one of three behavior categories for each variable (See Table 3). The coding judgments for the two variables were generally determined by the student behavior which dominated most of the ten second interval. The exception to this involved instances of serious misbehavior. In the case of serious misbehavior, any instance of such behavior within a ten second interval resulted in that interval being coded as "definitely out of assigned work" and engaged in serious misbehavior." Total scores for the student variables were obtained by determining the total frequencies of each coding category, multiplying each coding category total by a weighting factor of 0 to 2 (See Table 3) and summing the three resulting figures. All student variables were coded from the behaviors of a random sample of six students selected for each videotape. Only one student was coded for a given 10 second interval. The coding order across the six pupils in each videotape was also randomly determined. The random sample of students coded was drawn from the total number of students visible on the video-screen. All visible students were numbered, and six numbers were drawn from a box, to determine those students to be monitored. The numbers were then re-

shuffled and drawn again in order to determine the coding sequence to be used. Forness and Guthrie, 1977, provide good empirical evidence for the representativeness and validity of these sampling procedures in a similar study. See Appendix B for the coding grid and Appendix D for the student variable total frequency counts.

Table 3

Student Behavior Variables

Variable	Coding Categories	General Student Behaviors
1. Deviance	1. not misbehaving (weighting factor of 0)	:on-task. :visibly working on assigned material or activity.
	2. engaging in mild misbehavior (weighting factor of 1)	:reading magazines, comics, non-designated materials. :whispering to neighbour. :making faces at camera. :out of seat. :asking unnecessary questions.
	3. engaging in serious misbehavior (weighting factor of 2)	:hitting, kicking, tripping another. :knocking over or taking another's props. :throwing things. :damaging property. :disobeying teacher order.
2. Work Involvement	1. definitely in assigned work (weighting factor of 2)	:writing, performing, reciting, volunteering to perform, reading.
	2. probably in assigned work (weighting factor of 1)	:looking at relevant materials, materials in place. :student positioned so that s/he could be listening or thinking.
	3. definitely out of assigned work (weighting factor of 0)	:attending to something other than the current task or activity. :out of seat.

Inter-Rater Reliability

The experimenter coded all the tapes and then trained a reliability coder in the coding methods used. Two tapes were randomly selected for training, and two different tapes were randomly selected for an inter-rater agreement check. Inter-rater agreement was calculated for both teacher and student variables across all categories. Table 4 (See Chapter IV) provides a summary of the agreement percentages obtained.

CHAPTER IV

RESULTS

This chapter contains four major sections. After an initial exam-
ination of the reliability of the experimental data (See Appendices C and
D) by means of inter-rater agreement calculations, descriptive statistics
(means, standard deviations, and ranges) are reported for all the
experimental variables. Correlational hypotheses are then examined through
a series of Pearson Product Moment Correlation Coefficients among all
experimental variables. Finally, the major correlations between teacher
and student variables obtained in this study are compared to those
obtained by Kounin (1970). A brief summary of results concludes the
chapter.

Inter-Rater Agreement On The Coded Variables

Inter-rater agreement figures for the coding observations were
calculated for every variable from the two tapes independently coded by
both the experimenter and the reliability coder. Inter-rater agreement
between the experimenter and the reliability observer was calculated for
each variable by dividing the lowest frequency observer's score by the
highest frequency observer's score and multiplying the resulting fraction
by 100. Table 1 indicates that the average percent agreement across all
variables for Tape 3 was 92% and 80.99% for Tape 5, with an overall agree-
ment average of 86.50% across the two tapes. Major agreement discrepancies
occurred in the coding of deviancy (66.6% on Tape 3 and 60% on Tape 5) and
withitness (50% on Tape 5). The percent agreement for work involvement

was high (93.3% on Tape 3 and 98.24% on Tape 5) as was the agreement for the coding of most teacher variables (See Table 4).

Table 4

Inter-Rater Agreement Percentages For All Variables On

Two Experimental Tapes

	Variables	Percent Agreement	Average % Agreement	Overall Agreement
Tape 3	Withitness	100%		
	Negative Transitions	100%		
	Learner Accountability	95.5%		
	Group Alerting	96.6%		
	Deviancy	66.6%		
	Work Involvement	93.3%		
			92%	
Tape 5	Withitness	50%		
	Negative Transitions	100%		
	Learner Accountability	80.39%		
	Group Alerting	97.30%		
	Deviancy	60%		
	Work Involvement	98.24%		
			80.99%	
				86.50%

Descriptive Statistics On All Variables

Means, standard deviations, and ranges were calculated for each variable (See Table 5). There were very few instances of negative transitions (mean = .73 / range of 0-5); withitness had a low frequency count (mean = 5.33 / range of 0-24), as did deviancy (mean = 7.93 / range of 0-33). Work involvement had the highest frequency count (mean 153 / range 111-183).

The classrooms in the study were predominantly well controlled in terms of Kounin's variables as indicated by high work involvement and low deviancy scores.

Table 5

Means, Standard Deviations, and Ranges On All Variables

Variables	$\overline{X}$	S..D.	Range
Withitness	5.3	6.47	0-24
Negative Transitions	.7	1.34	0-5
Learner Accountability	38.8	21.70	3-90
Group Alerting	26.2	16.18	0-60
Deviancy	7.9	10.30	0-33
Work Involvement	153.0	22.08	111-183

Teachers used predominantly learner accountability and group alerting with a minimum amount of withitness and almost no instances of negative transitions.

Pearson Product Moment Correlations Among Variables

The Pearson r was used to determine the degree of relationship between the dimensions of teacher style and student behavior. Correlation coefficients were calculated among all variables (See Table 6).

Table 6

Pearson r Correlation Matrix For All Experimental Variables

	Withitness	Negative Transitions	Learner Accountability	Group Alerting	Deviancy	Work Involvement
Withitness						
Negative Transitions	.7180**					
Learner Accountability	.2927	.5255*				
Group Alerting	.1485	.4792	.9193**			
Deviancy	.3465	.0422	-.6253*	-.6639**		
Work Involvement	-.3521	-.0744	.2601	.0702	-.38	

* significant at p< .05
** significant at p < .01
underlined correlates are depicted in scattergrams contained in Appendix E

In Chapter II, the following correlational predictions (hypothesis)
were made based on Kounin's 1970 study:

1. The correlation between withitness and student disruptive behavior
    should be significantly negative.

2. The correlation between negative transitions and student
    disruptive behavior should be significantly positive.

3. The correlation between learner accountability and disruptive
    behavior should be significantly negative.

4. The correlation between group alerting and student disruptive
    behavior should be significantly negative.

5. The correlation between withitness and student work involvement
    should be significantly positive.

6. The correlation between negative transitions and student work
    involvement should be significantly negative.

7. The correlation between learner accountability and student work involvement should be significantly positive.

8. The correlation between group alerting and student work involvement should be significantly positive.

From Table 6 it is clear that most of the correlations in this study were not statistically significant. Of those five which were significant, two relate directly to the stated hypotheses. The correlation between learner accountability and deviancy was significantly negative $(-.6253 \ p < .05, 15 \ df)$, as predicted. The correlation between group alerting and deviancy was significantly negative $(-.6639 \ p < .01, 15 \ df)$, also as predicted.

The remaining three significant correlations from Table 3 are all among teacher variables and are thus not directly related to the study hypotheses which were totally concerned with the relationships among teacher and student variables. It is nonetheless consistent with Kounin's previous work to note that generally positive correlations were found among the four teacher variables of withitness, negative transitions, learner accountability and group alerting.

Turning to nonsignificant correlations among teacher and student variables (and treating anything less than $\pm .10$ as essentially no correlation), only two correlations are in directions opposite to those predicted in Chapter II.

The correlation between withitness and deviancy was positive $(.3465)$ rather than the predicted negative relationship. Likewise, the correlation between withitness and work involvement was negative $(-.3521)$ rather than the predicted positive. These correlations are, however, statistically insignificant, and of questionable reliability given the low coding frequencies obtained for the withitness variable across the fifteen

classrooms observed.

It should be noted that any responsible interpretation of the correlations involving negative transitions is really impossible given the very infrequent occurrence of this variable (See Table 5) in the study. Such correlations are omitted from further consideration in this chapter.

Comparison of Experimental Correlations with Kounin's 1970 Correlations

In comparing the experimental correlations with Kounin's 1970 results, a freedom from deviancy score (FFD) was calculated in order to draw a better comparison with Kounin's freedom from deviancy variable. This score was the percent of coding intervals in which no misbehavior occurred. Pearson correlation coefficients were calculated between this new freedom from deviancy variable and the teacher variables of withitness, learner accountability, and group alerting. Table 7 presents a comparison of the experimental correlations obtained in this study between the teacher and student variables and those obtained by Kounin (1970).

Table 7

Correlations Compared to Kounin's 1970 Correlations

Teacher Variables			Student Variables	
	Freedom From Deviancy		Work Involvement	
	Present Study	Kounin	Present Study	Kounin
Withitness	-.330 (NS)	.531 (S)	-.352 (NS)	.615 (S)
Learner Accountability	.443 (NS)	.385 (S)	.260 (NS)	.494 (S)
Group Alerting	.677 (S)	.442 (S)	.070 (NS)	.603 (S)

S - Significant
NS - Nonsignificant

Generally there are more similarities in the results of the two studies than there are differences - but there are two major differences. In this study, withitness correlated (-.3295) negatively with freedom from deviancy and negatively (-.3521) with work involvement; while Kounin's correlations for these variables were both positive and significant. Group alerting was the only variable to correlate significantly with freedom from deviancy. Perhaps if the sample size (n = 15) of the current investigation had been larger, more results would have reached significance. Kounin's results were based on forty-nine classroom correlations with forty-nine degrees of freedom approaching significance at much lower values.

Summary

This study supports the findings of Kounin (1970) for relationships among the teacher variables of learner accountability and group alerting, and the student variable of deviancy. The presence of these instructional behaviors is associated with a decrease in student off-task behavior. Other correlations while generally in the direction of Kounin's results (with the exception of withitness to deviancy and work involvement) did not approach statistical significance.

CHAPTER V

DISCUSSION AND CONCLUSIONS

As a replication and extension of Kounin's 1970 study of teacher

managerial skills, the present study sought to determine whether or not

Kounin's variables and findings applied to the junior secondary level -

specifically to grade eight social studies and language arts recitation

lessons. This correlational study followed Kounin's ecological methodology

of examining naturally occurring teacher classroom behavior; but it used

Borg's (1973) operationalizations of Kounin's conceptual formulations.

The fifteen volunteer teachers were untrained in the specific class

management variables being video-monitored. Kounin and Doyle (1975)

support such methodology in that it avoids the

> errors of experimental bias as well as the social
> psychological problems inherent in being "subjects
> in an experiment" rather than pupils or teachers in
> classrooms (Kounin and Doyle, 1975).

Facilitated by Borg's operational definitions, Kounin's variables

were identifiable in the grade eight classrooms monitored. The results

supported Kounin's findings for the teacher variables of learner account-

ability and group alerting. With respect to the other teacher variables

examined, withitness correlated in reverse to Kounin's results and

negative transitions essentially did not occur in the lessons monitored.

Discussion Of The Major Findings

Since the major findings of this study must be examined in relation

to Kounin's earlier work, a brief discussion of similarities and

differences across the current study and Kounin's major 1970 study set

the stage for an interpretation of obtained results. The present study

differed from Kounin's study in several ways. Kounin video-monitored

49 classrooms as compared to the 15 classrooms used in this study. Kounin

observed grades one and two classes in the spring of the year for one full

day each while the present study collected twenty minute videotapes of

grade eight English and Social Studies morning classes in the fall of the

year. Kounin had two video-cameras and remote control equipment. One

camera monitored the teacher and the other monitored the target students.

The present study used one camera, set up in a rear corner of the classroom

and angled in order to record the teacher and as many students as possible

from a stationary camera eye. Kounin's population was from a large

American city (Detroit and one of its predominantly middle class suburbs)

while the present study's population was from a mixed urban-rural, small

western Canadian town area. Kounin used separate coders for the recording

of teacher and student behaviors. The present study employed only one

coder. In the current study Borg's operationalizations were used to code

observational data, and results were calculated from raw score frequencies.

Kounin's results were based on derived scores. Kounin collected data for

both seat work and recitation lessons; this study was solely concerned

with recitation lessons. Both studies reported high inter-rater

reliability.

In this study, the two confirmed hypotheses involved the two teacher

skill variables that had the highest coding frequencies in the recitation

lesson settings. Learner accountability and group alerting correlated

significantly and negatively with student deviancy, and thus were clearly

associated with a decrease in student off-task behavior.

The coding frequency of the discrete teacher skills that comprise learner accountability showed that the participating teachers used almost no peer involvement nor goal directed prompts. The learner accountability score was thus essentially based on occurrences of the discrete skill of work showing. Learner accountability related positively but non-significantly to freedom from deviancy.

Two discrete skills, questioning technique and alerting cues, were monitored for group alerting, with questioning technique providing the basis for the derived score. There were almost no instances of alerting cues coded. Questioning technique had a high coding frequency and is obviously an important skill in the recitation setting. Note however, that the questioning technique frequency could have been higher, given (1) many instances of insufficient teacher pause, and (2) frequent naming of reciter prior to question delivery. It may therefore be hypothesized that this is an even more important variable for classroom management than its significance in this study indicates. Group alerting related positively and significantly to freedom from deviancy.

With respect to the six unsubstantiated hypotheses, four correlations were in the directions predicted, but did not reach statistical signifi-cance (negative transitions correlated positively with deviancy and negatively with work involvement; learner accountability correlated positively with work involvement; and group alerting correlated positively with work involvement).

Two hypotheses were completely rejected. Both involved the teacher variable withitness. Withitness related positively to student deviancy, i.e., instances of teacher withitness (cueing a student's return to task)

only occurred in conjunction with instances of student deviancy or off-task behavior. Where there was teacher withitness there was also student deviancy. Withitness also correlated negatively with work involvement, as would be expected given its positive relationship to deviancy. The results of this study vis-a-vis teacher withitness are thus clearly at odds with Kounin (1970). A likely explanation for this major discrepancy begins with a review of the coding procedures for the withitness variable as recorded in the Kounin (1970) study:

> A teacher's withitness score was obtained by dividing the total number of her desists by the number of her mistake-free desists. The fewer the proportion of the desists that contained either target or timing mistakes, the higher her score for withitness (Kounin, 1970, pp. 81-82).

Kounin then correlated his withitness score to a freedom from deviancy score and obtained a positive correlational relationship. Freedom from deviancy represented an inferred score based on the percentage of coding intervals free from deviancy. Kounin's withitness scores correlated positively to total intervals without deviancy. But considering Kounin's method of calculating withitness, it is difficult to see how the more withit teacher obtained a higher score than the less withit teacher. If, for example, a teacher had ten desists in a certain class and five were error-free desists, s/he would (by Kounin's calculation system) derive a withitness score of two (10 ÷ 5). If s/he had fifteen desists and five were error-free, s/he would derive a score of three - which is a higher withitness score than two yet based on a wider margin of error. This score is then correlated with the percentage of intervals in which there is no deviancy and a positive relationship is found. Hence, Kounin concludes that teacher perfect desists result in greater intervals of

on-task behavior while the present study indicates that teacher withitness only occurs with student deviancy, and thus desists are negatively related to intervals free from misbehavior.

The present study calculated a direct frequency weighted score for deviancy, as well as a freedom from deviancy score. Here, withitness, calculated as the sum of the total frequency of occurrence of its four composite discrete skills, correlated positively with deviancy and negatively with freedom from deviancy. These results are internally consistent and really not confusing in view of the obvious conflict between Kounin's methodology and this conceptualization of the variable.

Returning to Kounin's reported method for calculating withitness, it is almost impossible to understand how he can conclude that "the fewer the proportion of the desists that contained either target or timing mistakes, the higher her score for withitness" (Kounin, 1970, p. 83) based on a calculation procedure that "A teacher's withitness score was obtained by dividing the total number of her desists by the number of her mistake-free desists" (Kounin, 1970, p. 82). As previously demonstrated, such a coding procedure would seem to result in higher scores for less withit teachers, rather than higher scores for more withit teachers.

Negative transitions is a variable that did not transfer to this study. There was only one coded event of stimulus-boundedness and there were few instances of negative thrusts or flip-flops. The coding and scoring of this variable was different from Kounin's in that Borg compressed Kounin's categories into three discrete skills. At any rate, so few instances of negative transitions were apparent in this study that neither methodology would have yielded essentially measurable scores for

this variable.

The two student variables, deviancy and work involvement were coded in one of three possible categories. The overall frequency of deviancy was low and the majority of the coding fell into the category of "not misbehaving." Like Kounin, this study found no instances of serious misbehavior.

Work involvement scores were based on majority coding in the category of "probably on task" as opposed to "definitely on" or "definitely out of assigned task."

Study Limitations And Suggestions For Improvement

The major limitation of this study was the small sample size which prevented statistical significance being obtained for most correlations. There were low frequencies on some variables (notably negative transitions) that may have changed given a wider data base as well as an investigation of the seat work setting.

The recitation lesson setting did not provide a clear indication of student work involvement. Ascertaining whether or not a student is actively engaged in the recitation lesson is difficult unless s/he is reciting or volunteering to recite. The classrooms studies were well controlled but this is not necessarily an indication of active and positive learning.

A major limitation of the video methodology used in this study is that the camera only monitored part of the classroom, hence there were instances of off-task behavior that were not recorded. Off setting this limitation were the obvious advantages of an objective, stationary eye

and the replay capacity.

In order to approximate Kounin's 1970 study, the present study also employed a naturalistic, correlational design as opposed to an experimental design. Hence the results, while affording ecological information about natural classroom behavior yielded only predictive information as opposed to the causal explanations that would follow from an experiment, i.e., the present study can only suggest that teacher use of the group management strategy, group alerting, will result in a decrease in student deviancy.

At this stage of reviewing or studying Kounin's management concepts, the correlational study is useful in both replicating and extending his work; in trying to determine the relative significance of his teacher variables to engaged learning and lesson format; and in laying the basis for an experimental examination of these managerial strategies. However, a control group of teachers specifically trained in Borg's (1973) operationalizations of these management strategies, would provide clear causal information concerning the power of these strategies to produce increased student engaged time.

Overall the present study could have been improved with a wider data base, extended through an investigation of the seat work setting, and the inclusion of an experimental control group of teachers trained in Kounin's group management dimensions.

Implications Of The Study For Educational Practice

The study contains implications for educational research and practice given that it is important to know what teacher behaviors

facilitate student learning or engaged time. This is particularly so, given that engaged time is now thought to be the most important variable in student learning (Thomas, 1980).

Kounin's group management variables were identifiable using Borg's breakdown of their component discrete skills. Two of these teacher variables, learner accountability and group alerting, are clearly important recitation strategies as indicated by their high frequencies. However, results in this study may indicate that they are not used to full advantage.

As stated earlier, the learner accountability score was based on a high frequency of the discrete skill of work showing. The discrete skills of peer involvement and goal directed prompts were essentially not used by the participating teachers inspite of the fact that they lend themselves to the recitation setting in terms of analysis and extension of peer logic, and in terms of student verbalization of work strategies.

In terms of teacher use of group alerting skills, questioning technique had a high frequency while alerting cues were almost non-existent. As a mangement skill, group alerting relates directly and clearly to the recitation lesson. The non use of alerting cues to remind students of questioning ground rules or lesson format, and the coding loss of many questions due to identifying the reciter prior to framing the question or failing to pause before identifying the reciter, is significant information for both inservice and preservice teacher skill training.

Future Directions For Research In Area

Presage and product evidence is still required for Kounin's class-
room management dimensions. The evidence is not yet in regarding the
relationship of the variables to student learning or attitude. There is
evidence in teacher training programs such as Head Start (Ream, 1968),
Follow Through (Kennedy, 1978), and Project Teach (Hasenstab, 1977), as
well as in Behavior Modification Literature (Axelrod, 1977) that teachers
can be taught to recognize, change and improve their managerial skills.
An experimental study of the relationship between these teacher variables
and student engaged time is required in order to substantiate the
importance of these variables. Such an investigation could also resolve
the withitness-deviancy discrepancy between Kounin's 1970 study and the
present study. As well, partial correlations among all the teacher
variables would provide a clearer measure of their individual significance,
e.g., the power or significance of withitness in a recitation setting
minus the effect of group alerting is still unknown. Any further research
should obviously use a larger sample, cover more secondary grades, and
look at seat work as well as recitation lessons.

Concluding Comment

In summary, the major importance of this study has been in
providing correction to Kounin's work regarding the calculation
methodology of the variable withitness. Given this correction, the value
of replication studies should not be eschewed by education researchers.
This is particularly important since Kounin's 1970 study, with only
partial replications, has had such considerable impact on education theory

and practice.

APPENDIX A

TEACHER VARIABLE FREQUENCY CODING SHEET

VARIABLE

TAPE # _____

DISCRETE SKILLS:
1.
2.
3.

* 1 coding sheet per videotape was used to code each major teacher variable in terms of the specific skills defining that variable.

APPENDIX B

STUDENT VARIABLE FREQUENCY CODING SHEET

TAPE # _____

10 Second Coding Intervals

STUDENT ORDER:		1	2	3	4	5	6	1	2	3	4	5	6	1	2	3	4	5	6	1	2	3	4	5	6
CODING CATEGORIES																									
D *	1																								
	2																								
	3																								
WI**	1																								
	2																								
	3																								
D	1																								
	2																								
	3																								
WI	1																								
	2																								
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*   D = Deviancy
** Wl = Work Involvement

APPENDIX C

TEACHER VARIABLE TOTAL FREQUENCY COUNTS

VARIABLE:	WITHITNESS					TRANSITIONS				LEARNER ACCOUNTABILITY				GROUP ALERTING		
DISCRETE SKILLS:	D	SAB	CP	DOB	TOTAL	SB-	t-	FF-	TOTAL	GDP	WS	P1	TOTAL	QT+	AC	TOTAL
TAPE 1.	1				1				0	1	27		28	23	1	24
2.				1	1				0		30		30	36		36
3.				1	1		1		1		45		45	26	4	30
4.	9			2	11	1	1		2		3		3	2	1	3
5.				2	2				0		48		48	36	1	37
6.				1	1				0		22		22	13		13
7.					0				0		42		42	26		26
8.	3			2	5		1		1		42	1	43	32	2	34
9.	10			3	13				0	1	7		8			0
10.				1	1				0		27		27	19		19
11.	6			1	7				0	3	19		22			0
12.				1	1				0		54		54	36		36
13.	8			2	10				0	1	63		64	38		38
14.	22			2	24		4	1	5		89	1	90	60		60
15.	1			1	2		2		2		56		56	37		37

APPENDIX D

STUDENT VARIABLE TOTAL SCORES *

VARIABLE	DEVIANCY				WORK INVOLVEMENT			
CODING CATEGORIES	(x 0)	(x 1)	(x 2)	TOTAL	(x 2)	(x 1)	(x 0)	TOTAL
TAPE: 1.	128	2	0	2	9	120	.1	138
2.	119	11	0	11	0	120	10	120
3.	124	6	0	6	55	58	17	168
4.	97	33	0	33	12	87	31	111
5.	125	5	0	5	45	80	5	170
6.	130	0	0	0	54	65	11	173
7.	129	1	0	1	56	68	6	180
8.	121	9	0	9	38	78	14	154
9.	109	21	0	21	29	72	29	130
10.	130	0	0	0	35	88	7	158
11.	103	27	0	27	85	11	34	181
12.	130	0	0	0	21	101	8	143
13.	129	1	0	1	14	110	6	138
14.	127	3	0	3	27	94	9	148
15.	130	0	0	0	59	65	6	183

* Because tapes were of differing lengths, data were adjusted to permit comparisons which would be unconfounded by such time differences. If a tape was short of 130 ten-second coding intervals, extrapolated data were recorded for each of the time intervals between the last recorded time interval and a hypothetical 130th time interval. The method of extrapolation employed consisted of averaging relevant variable scores across the number of 'existing' time intervals, and inserting the obtained average into each of the 'added' time intervals. If a tape was longer than 130 ten-second intervals, data from intervals exceeding the 130th interval were simply omitted.
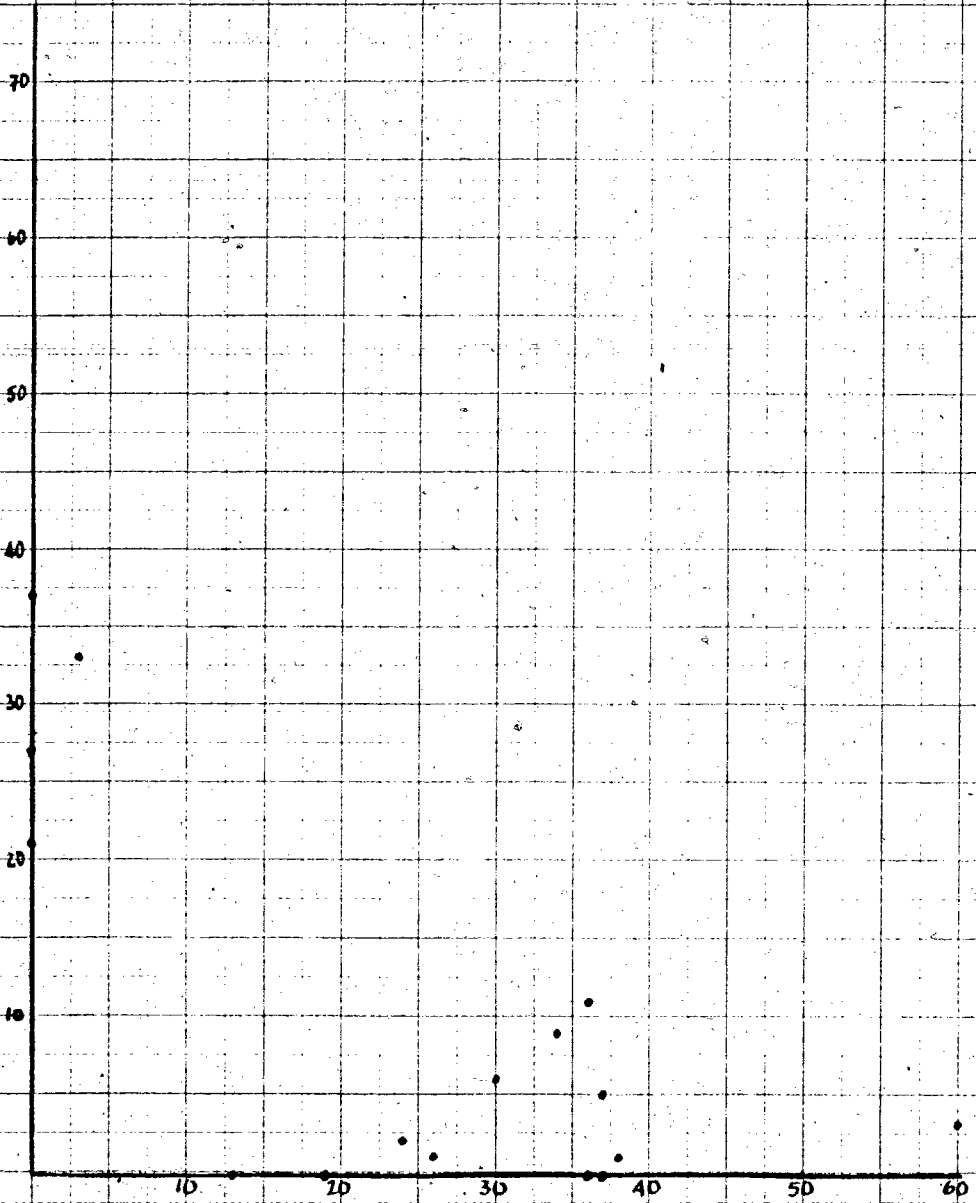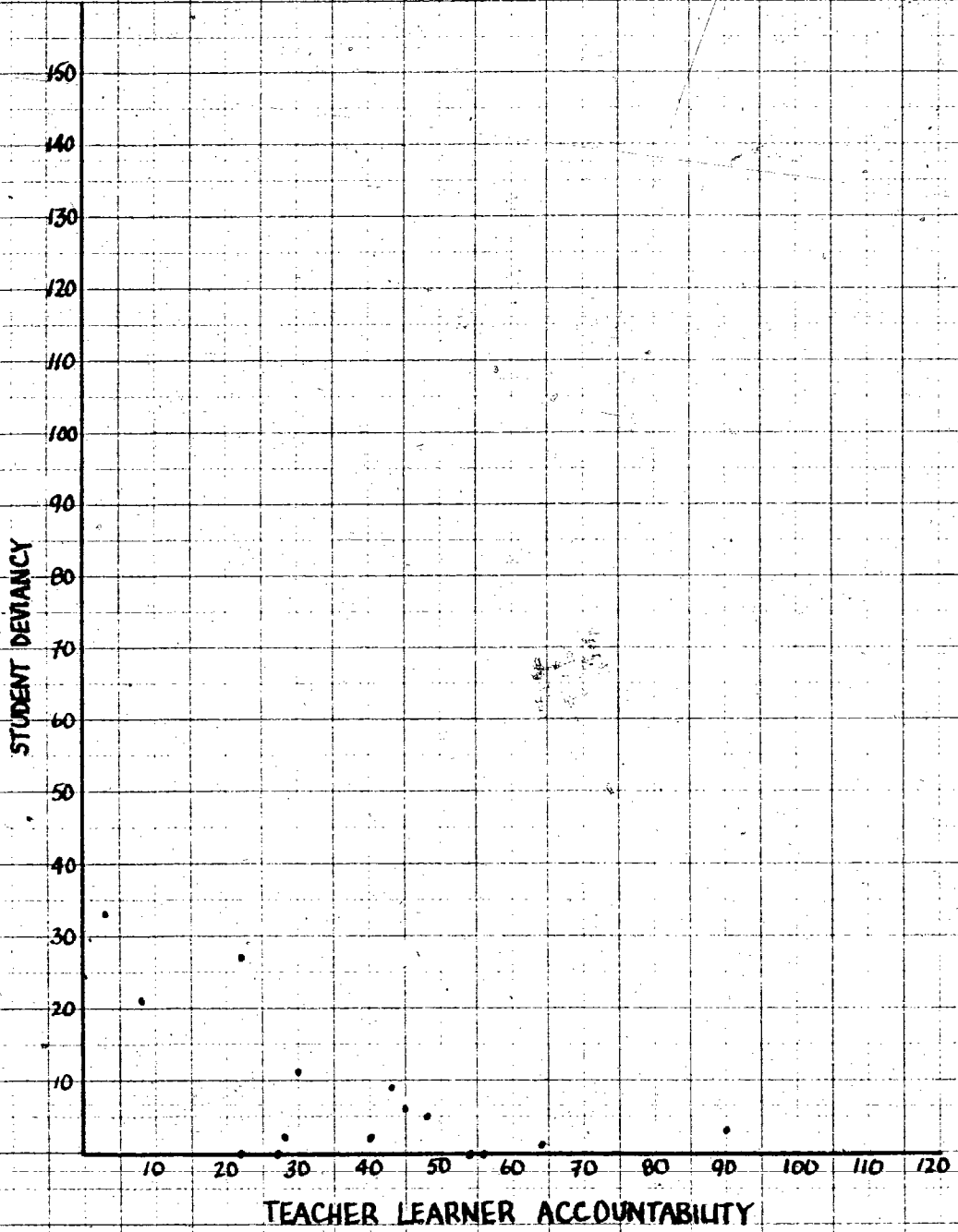
APPENDIX E

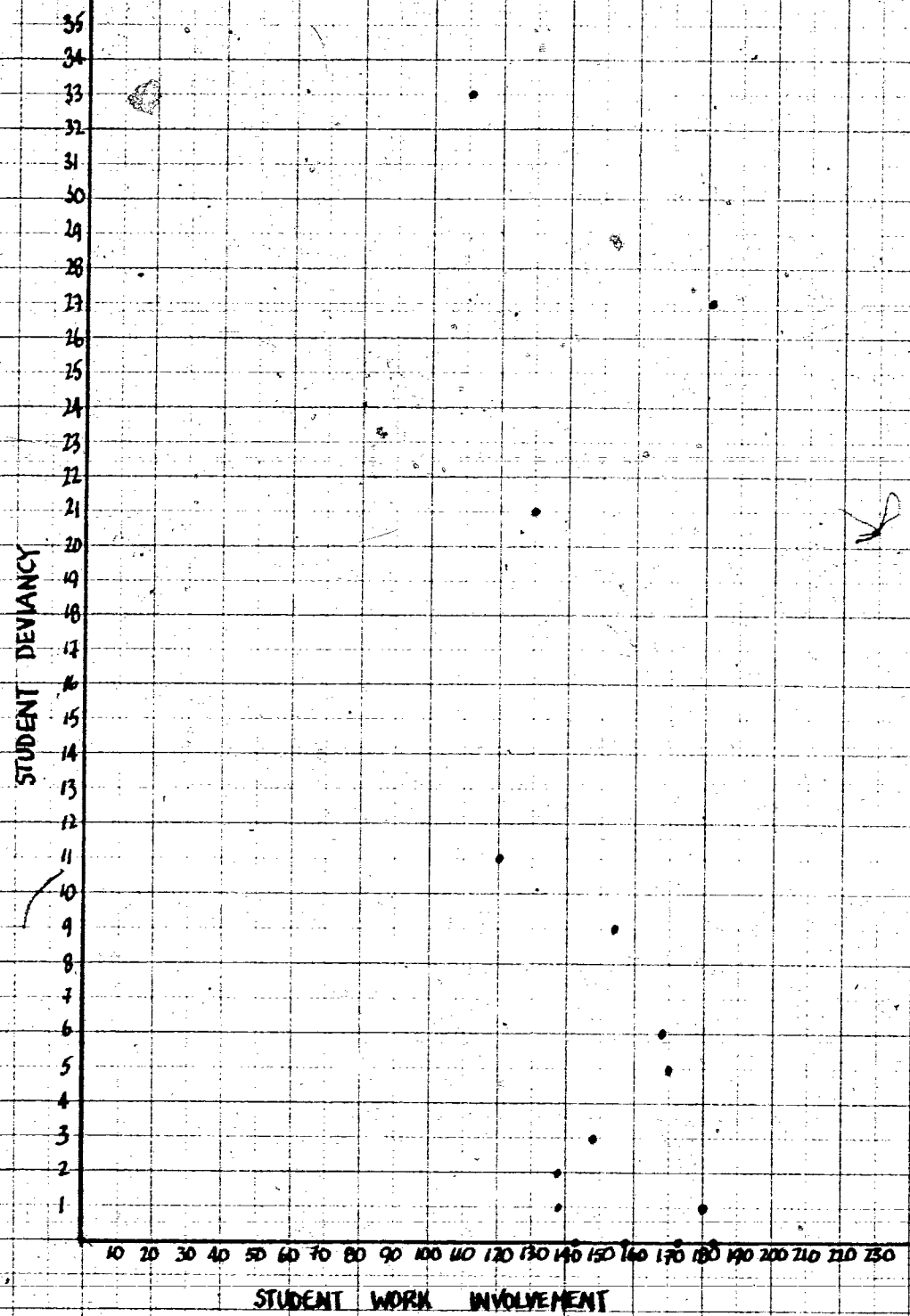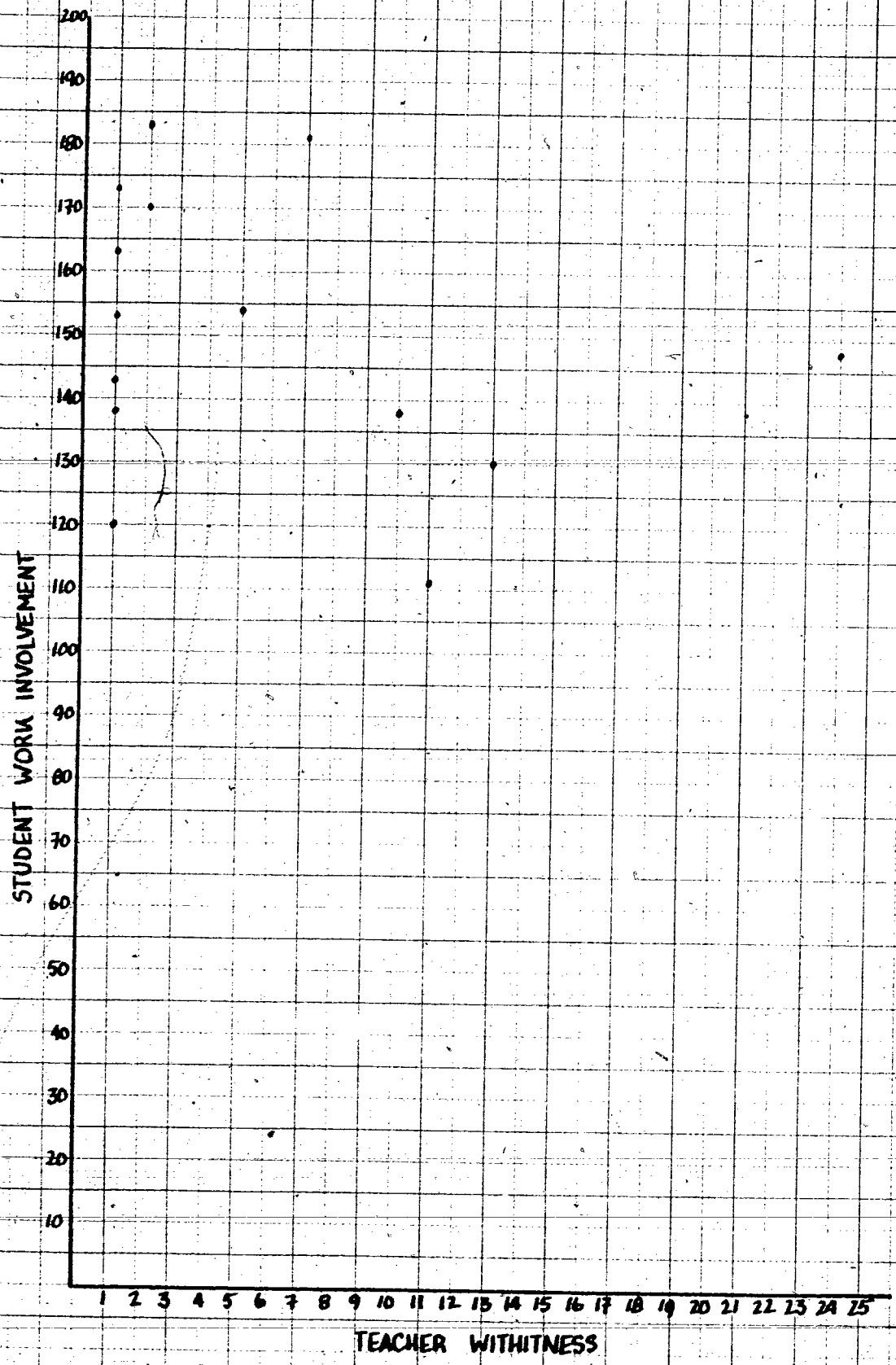## SCATTERGRAMS FOR SELECTED EXPERIMENTAL CORRELATES

STUDENT DEVIANCY (y-axis, values: 2, 4, 6, 8, 10, 12, 14, 16, 18, 20, 22, 24, 26, 28, 30, 32, 34)

TEACHER WITHITNESS (x-axis, values: 2, 4, 6, 8, 10, 12, 14, 16, 18, 20, 22, 24, 26)
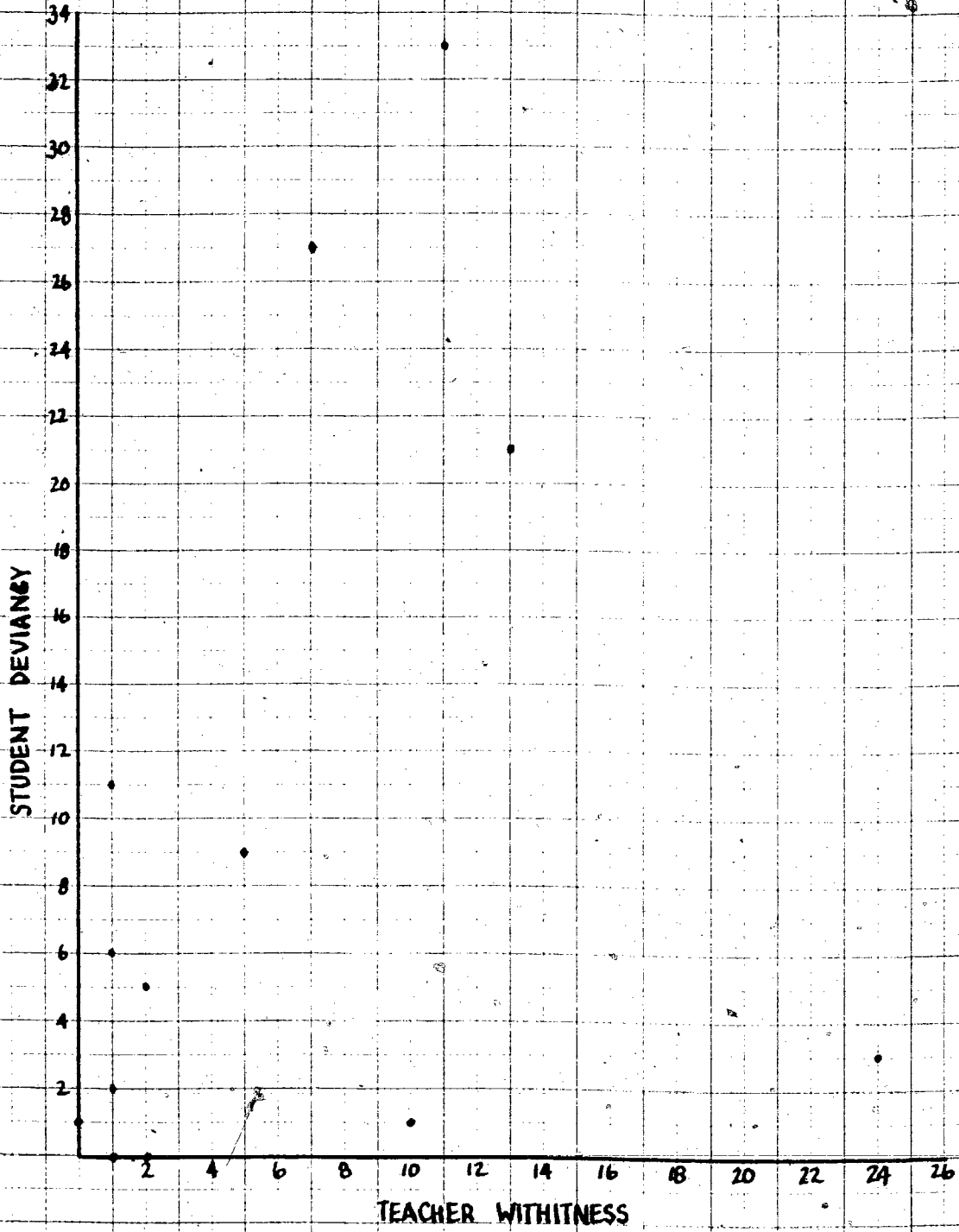
STUDENT DEVIANCY

TEACHER LEARNER ACCOUNTABILITY

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