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ABSTRACT

This final report of the linear process-product relationships in a 2-year study relates characteristics of teachers to measured student learning gains. Correlations are presented that relate teacher responses on an extensive questionnaire and in an interview to measures of student learning gain on five achievement tests. The sample involved 30 second- and third-grade teachers working in high and low socioeconomic status (SES) schools. Subjects were selected because they had previously shown a relatively high consistency in the degree of student learning gains that they produced on standardized achievement tests. Attitudes, beliefs, and practices, that of teachers of both high and low SES students that correlated positively and negatively with learning gains, are discussed. (Author)

THE TEXAS TEACHER EFFECTIVENESS PROJECT:

Questionnaire and Interview Data

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The Research and Development Center for Teacher Education was established on the campus of the University of Texas at Austin in 1965, to design, build and test effective products to prepare teachers for careers in the nation's schools.

A staff of more than 100 are engaged in projects ranging from basic research into effective teaching behavior, through development of special counselor training strategies, to the development, implementation and evaluation of a complete and radically different undergraduate teacher education program.

The Center's major program, the Personalized Teacher Education Program, has its roots in teacher personality research dating back to the mid-Fifties. This early research, which demonstrated how teacher's personalities and classroom behavior correlate with success in their teaching careers, has led to the development of a large group of products which help education facilities become aware of student teachers' individual needs. The program also has produced products for student teachers' use, to help them build on their strengths.

The completely modularized program is currently in field test and/or use at more than a dozen important teacher education institutions nationally.

In addition to the PTEP, the Center also supports other projects in educational evaluation, development of strategies for implementing institutional change, and in consultation techniques for helping teachers plan individualized programs for children.

The Center's work is supported by the National Institute for Education and by the University of Texas System, as well as through contract research and development programs for public agencies.

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TEXAS TEACHER EFFECTIVENESS PROJECT:
QUESTIONNAIRE AND INTERVIEW DATA

This paper contains questionnaire and interview data collected from a selected sample of teachers in the second year of a two-year correlational study of teaching effectiveness. Thirty second and third grade teachers were chosen for the study because of their consistency in producing student learning gains on the Metropolitan Achievement Tests over four consecutive years. The teachers ranged in effectiveness from consistently high to consistently low (See Brophy, 1973, for details of the sample selection). In addition to these questionnaire and interview data, the study included classroom observations yielding behavioral data on classroom process variables. A summary of the two-year study and discussion of high and low inference process-product linear relationships are reported in Brophy and Evertson (1974a). The second year report of the non-linear process-product relationships, along with a full discussion of the study as a whole, is found in Brophy and Evertson (1974b). Interested readers may wish to obtain these reports also.

The questionnaire and interview data reported in this paper were obtained at the end of the second year of the study. They concern both variables measured by other instruments used in the study (to provide internal validity checks) and variables difficult to measure through periodic classroom observations or coder ratings, such as teachers' attitudes regarding teaching methods, motivation techniques, beliefs about tests, and parental involvement. The

questionnaire was completed by thirty teachers at the end of the school year, shortly after the interview was conducted. The questionnaire also was administered to an additional 38 (non-sample) second and third grade teachers in the school district, in order to assess the representativeness of the sample teachers.

The questionnaire contained checklists, scales, and percentage estimates, to which teachers responded by checking, circling, or filling in a number. Items dealt with such topics as proportion of time spent in lecturing vs. class discussion vs. individual seatwork; time spent in lesson preparation; proportion of objective vs. subjective impressions used in grading; types of motivating devices used; and factors felt to be essential to good teaching. The questionnaire also included scales on which teachers could rate their teaching concerns, sources of teaching satisfactions, and beliefs about good teaching. Once the questionnaires were scored, the number of items was reduced to a more manageable form. Standard factor analytic methods were inappropriate, because the number of variables greatly exceeded the number of subjects, so the questionnaire was broken into subsets of items which appeared to be logically related (on a common sense basis). These subsets, such as the sections on teacher concerns, teacher opinions, and teacher satisfactions, then were factor analyzed. Variables which showed a good factor structure and high factor loadings in these analyses then were combined, weighting each item equally. For example, the new item, "motivating by use of public rewards" was derived by combining such questionnaire ratings as "high use of public recognition," "exemption from tests," "high use of competition and contests," and "giving individual prizes and rewards."

In this manner, 62 factors were obtained. These factors, the items which loaded on them, the factor loadings, and the directions of the loadings

are all shown in Table 1. These factors, as well as those items which did not combine into factors, then were correlated with our criteria of student learning gains (Tables 2 and 3).

The second self-report instrument was interview containing 165 questions. Each teacher was interviewed privately by one of the authors or by one of two experienced staff members. Items included in the interview were mainly those which required information difficult to obtain by checklists or scales and which usually required lengthy responses from the teachers. The interviews employed a "funnel" technique, beginning with a broad general question such as "How do you provide for individual differences among students?" then narrowing down to "What do you do especially for high achievers? Low achievers?" Some teachers contributed questions for the interview (at our invitation), and these were included.

Scoring of the interview items took into account the range and variety of responses. Categories were formed which, combined, covered a majority of the answers obtained on each item. Item responses then were scored 1 or 0 for presence or absence of each category. The interview also was broken down into small, common sense sections and factor analyzed. The items were examined for good factor structure and for high factor loadings, in the same manner as were the questionnaire items. The 165 interview items yielded 44 factors. These are shown in Table 4, along with the items which loaded on them, the factor loadings, and the direction of these loadings. As with the questionnaire, items which formed factors were weighted and summed, and these sum scores, as well as the remaining items which did not factor, then were correlated

with student learning gains on five subtests of the Metropolitan Achievement Test battery. (Tables 5 and 6).

The interview and questionnaire data to be reported are self-report data, and as such are open to sources of response bias such as extreme response sets, social desirability, logical error, and the like. Thus, all of these data concern teachers' stated opinions or perceptions, and technically it cannot be said that their responses reflect their actual behavior or even necessarily their actual perceptions and beliefs. However, unless there is some reason to question the accuracy or validity of the teachers' responses, they will be treated in this report as accurate statements about reality.

In a future report, we will systematically assess the validity of these self-report data by comparing teacher responses to interview and questionnaire items with data on teacher behavior from our high inference and especially our low inference classroom coding. These analyses can be done only for a subset of responses to the self-report instruments, of course, but nevertheless they will give us some idea of the general validity of the self-report data. For the present, however, teacher responses will be accepted at face value unless there is some reason not to accept them. This means that at times technically accurate but unwieldly phrasings of findings ("teachers' self report of favorable attitudes towards competition as a motivating device was positively correlated with . . .") will be simplified into less technically accurate but simpler and in some ways clearer statements ("teachers who favored competition as a motivating device tended to be more successful than teachers who did not."). Readers should bear in mind that formulations of the latter type have been adopted for simplicity

of communication, and that the technically correct formulation of the findings is more closely approximated by the former example.

Similarly, the findings will be expressed in a somewhat oversimplified fashion to facilitate communication. Technically, the relationships reported are between variables (teacher responses to the interview and questionnaire as related to mean residual gains on the criterion tests). Again, for clarity of communication, many of the findings will be reported in ways that communicate the nature of the finding more simply than a more technically accurate statement would. Thus, for example, statements like "High effective high SES teachers favored competition as a motivating device," are used instead of the more technically accurate but also more cumbersome and confusing "among high SES teachers, reported favorable attitudes towards competition as a motivating device were positively associated with measures of student learning gains."

Readers should bear in mind these things in considering the findings as they are phrased. The statement "High effective high SES teachers favored competition as a motivating device," is not a completely accurate rephrasing of the technically accurate statement of the relationship presented above. In particular, it should not be inferred that high effective high SES teachers strongly favor competition (perhaps the relationship occurred because the high effective teachers were relatively neutral towards it but the low effective teachers were strongly negative towards it, in general). Nor should the phrasing lead the reader to think that the teachers were divided neatly into non-overlapping high and low effective groups (a positive correlation between effectiveness and favorable attitudes towards competition does not mean that all of the relatively more effective teachers favored competition

and all of the relatively less effective teachers did not favor competition; it merely means that, within the group of teachers as a whole, there was a positive relationship between favorable attitudes toward competition and general success in producing student learning gains).

High SES Positive Correlations:

Among teaching techniques, effective high SES teachers report a variety of ways in which they prepare lessons: by unit, by subject, and by content area and time. These effective high SES teachers also reported that elaborate planning is not necessary, and that preparation is usually done at home rather than in the classroom after school.

For effective high SES teachers, methods of beginning lessons depended on the lesson itself, the subject matter, and the individual students. These teachers were aware of many alternative ways of planning, beginning, and motivating students for lessons. They also preferred lectures or explanations to multi-media presentations.

Effective high SES teachers reported staying with a child who did not know an answer during class discussion, trying to get him to improve his answer. The effectiveness of this technique was not borne out in the process data, however; staying with a student after he said "I don't know" or made no response showed generally negative correlations with learning in high SES.

If a child is not paying attention during class discussions, these teachers reported getting attention in a neutral or positive manner.

They made homework assignments by discussing the material, relating it to the work at hand and the purpose of the lesson, and probing for understanding by asking questions. They viewed homework as instructional rather than as just an extension

of school time. In other words, they felt that homework had specific instructional purposes beyond those of seatwork done in class.

Effective high SES teachers reported motivating students by using public or concrete rewards such as exemption from tests, contests, competitive games, and individual prizes and rewards. This is one place where the data support behavior modification techniques, although contrasting data appeared elsewhere.

For remedial work, these teachers used special assignments for students who needed help, as well as providing encouragement and incentives. They allowed all students a free choice of supplementary readers, but they followed the standard textbook for teaching spelling.

They mentioned using a variety of printed or published sources for ideas on teaching reading, and they got advice from other people, such as teachers and supervisors. Possibly this wide variety of sources helped them to develop a large repertoire of methods and techniques, enabling them to switch to a new strategy more easily when they encountered problems.

They reported that a good teacher openly admits her ignorance of a topic. Interestingly, no data appear for low SES on this measure, because there was no variance; all low SES teachers agreed with the statement. One possibility for this is that effective high SES teachers can turn their own ignorance of a topic into a challenge for students, motivating them to look up their own answers.

The reported use of "gimmicks" and special techniques to interest students in language arts (book clubs, supplementary readers, and special interest books) was positively related to learning for high SES teachers, especially on the word knowledge subtest. This suggests that challenge and stimulation are especially important for high SES students. These teachers also believed that competition in "bees" is desirable. This is another technique for challenging students and increasing competitiveness.

High SES effective teachers reported frequently having to ignore students who continually raised their hands, in order to give other students a chance to respond. This apparent overeagerness among high SES students also appeared in other data. In the process data, call-outs had negative relationships to learning in high SES. This fits with a much larger cluster of variables found in the process data suggesting that high SES teachers are concerned with keeping down over-competiveness and overeagerness, while low SES teachers are concerned with getting an answer, getting interest, and getting verbal responses from their students.

In assessment effective high SES teachers reported that objective exams are not good because there are no original ideas. However, they also reported that they determine students' readiness by testing and other objective measures. They also reported using student conduct and personal qualities as factors in assigning academic grades. Furthermore, effective high SES teachers stated that tests should be used to improve teaching, not just to evaluate students. Thus, they use test data but supplement with personal observations, both in assessing and in grading.

Effective high SES teachers reported the following concerning classroom organization. They generally favored the "non-graded classroom" concept and saw advantages in team teaching because children benefitted academically and because it was easier to individualize instruction. They all named at least one advantage to open classrooms. They believed that IGE was generally good for Mexican-American children (although this question was included because a teacher working with low SES Mexican-American children thought otherwise). They also reported feeling frustrated with school routine and with the inflexibility of administrative requirements. These positive relationships suggest that effective high SES teachers are willing to use a wide variety of organizational techniques, desire flexibility in their

planning and their dealings with students, and generally are positive toward newer, more flexible types of organization.

In responding to items about curriculum and level of instruction in their classrooms, effective high SES teachers reported gearing their instruction toward high achievers. They believed that differences in IQ and achievement reflected the will to use intelligence, and that one should expect students to forget much that they are taught. They also reported that they encouraged their students to tackle hard problems, and that they stressed principles when they taught mathematics.

Keeping magazines and reference books available in classrooms was positively correlated with learning for high SES teachers. So were positive attitudes toward TV, even though the TV programs designed for children of this age were not often used in these classrooms (mostly because of scheduling problems). Frequently the programs were held at inconvenient times, so that the teachers were not always able to work them into their schedules.

High effective high SES teachers reported that their most common discipline problem was noise in the classroom (instead of children's disrespect for one another). That is, students getting too loud or boisterous was much more of a problem than students fighting or hitting one another. Also, problems in rapport with children were seen as due to the children themselves and their environment. We suspect that these teachers were "spoiled," in the sense that they rarely have to deal with severe discipline problems or highly disruptive behavior. Most of the children with whom they deal come from homes where socialization has made their middle and upper-middle class children much more school-oriented.

Effective high SES teachers held certain attitudes about students in general. They reported believing that the teacher should speak to the children as she would to an adult. This may be a real possibility, for these children at least, so that this technique may work well for them. Certain relationships in the process data indicated that, at least for disciplinary reasons, calm discussion of misbehavior problems tended to work well. However, these teachers also reported that effective teaching requires the teacher to know the background of a student, but that in the average classroom it is not necessary to know each pupil well. It appears that this odd combination of correlations was caused by one or two outliers. The majority of high SES teachers disagreed with the latter statement.

Effective high SES teachers also reported that it is natural and healthy for students to resist teachers. Possibly these teachers see resistance as an attempt by their students to establish independence. At any rate, coupled with the data on discipline, it suggests that high SES teachers may not have the severe problems that low SES teachers have, and that resisting the teacher in high SES schools can be interpreted simply as assertion of independence by students.

When the whole class is restive, effective high SES teachers attributed the cause to outside forces such as the weather or the children being in a bad mood, ill, or tired. They did not report seeing this as due to boredom or disinterest in the subject matter.

Effective high SES teachers reported that they would like more time to relax and think. No data appeared for low SES on this variable; <u>all</u> teachers in low SES classrooms agreed with the item. High SES effective teachers felt that teaching was an art and not a science. That is, they did not see it as subject to specific rules

or scientific principles. They also reported believing that the teacher's personality is more important than the methods used. They also reported deriving satisfaction from working with books and ideas and dedicating themselves to difficult teaching problems. This was not readily interpretable, since the process data show (and certain self-report data also show) that effective high SES teachers concentrate heavily on subject matter and on challenging their students. Effective high SES teachers also reported gaining satisfaction from their non-teaching duties (community, civic, and professional responsibilities).

Effective high SES teachers reported that they responded to motivational problems by making direct efforts and by using the child's interests, particularly emphasizing his strengths. They reported basing their judgment of the worth of specific social-emotional activities (such as team teaching, Magic Circle, or learning centers) on their social-emotional effects on children, rather than on their effects on classroom organization or on the teachers themselves. This relationship indicates that, while high SES teachers may be concerned with cognitive gains to a large extent, they do not discount affective benefits. Also, they appear to have clear ideas about outcomes. Basic cognitive skills should be reflected in standardized tests, while social-emotional effects should be reflected in affective improvements.

Effective high SES teachers mentioned their concern with social-emotional needs of Mexican-American children (interestingly, high effective low SES teachers did not mention concern with these social-emotional needs). Possibly this is mentioned as a concern more by effective high SES teachers because of lack of experience of dealing with children of different ethnic backgrounds. These teachers also reported that black children have no special social-emotional needs, however;

i.e., they should be treated like any other children. It is difficult to interpret the difference in attitudes toward these two groups. It is possible that language differences cause problems in social adjustment for Mexican-American children. Also, few high SES teachers taught very many black children at all, because of de facto segregation. Several high SES teachers mentioned that the few black children they had had were good students, worked well, and had no problems.

When asked how they would handle an emotional disturbance in their class, effective high SES teachers reported that they would get outside help rather than handle it themselves. This is another indication that these teachers were somewhat "spoiled," not used to dealing with much disruption.

These teachers defined a cooperative parent as one who could communicate well with the teacher. This referred to a relationship characterized by mutual respect and openness, rather than to poor communication due to language problems.

High SES Negative Correlations:

Relationships which correlated negatively with learning gains in high SES are discussed in the present section, grouped in the same manner as before. The first group includes teaching techniques. Less effective teachers in high SES classes reported that their typical method for conducting reading groups was to begin with new vocabulary words first and then move to work on skills as opposed to having children read orally, which show positive but not significant relationships with learning gains. They also reported beginning lessons with the use of a specific attention getter. High effective high SES teachers qualified their answers on how they began lessons by stating that their method depended upon the lesson and the child. Low effective high SES teachers also reported using a high percentage of questions with only one correct answer during class discussions.

In providing remedial help for slow readers, they reported helping by devoting more time or assigning a teacher substitute. The quality of this time was not specified, nor were any strategies for the improvement of reading. Less successful high SES teachers also reported that the chief use of discussion is to get childrens' input and their participation in group planning. These teachers did not report using "spelling bees," while effective teachers in this group did. The less effective high SES teachers also reported teaching writing by emphasizing letter formation. The alternative method mentioned was following the handbook, but this method showed no relationship with learning gains. It is not clear why this was not a successful technique.

These teachers also reported that the chief purpose of seatwork is diagnostic: seeing how much material children have retained or where they are having trouble. They also reported that they typically assigned material and then insure that the students do the work.

Less successful high SES teachers reported that they give exact directions on each task. They also reported that the class should be centered around student input, with a minimum of teacher presentation. High effective teachers, however, preferred lectures and demonstrations to get across content. Probably students at these grades are not yet capable of learning efficiently through discussion (as a primary method), even though they probably are more independent and more capable of leading discussions than their lower SES counterparts. Thus, at these grades, it appears that the teacher still needs to guide the lesson structure herself most of the time for most of the students.

Less successful high SES teachers reported that they ask another student to give the answer when a child answers incorrectly. If a child makes no response, they also ask another student for the answer. In neither case did they report staying with the student by attempting to elicit a response or attempting to help the child improve on his original response. In contrast, effective high SES teachers reported that they try to stay with students until they get the answer they seek.

Low effective high SES teachers also reported that they try to remind children to ask when they do not understand, and that, if a child makes a mistake in checking, they point out the mistake and recheck his work. On the surface these do not appear to be poor techniques for teaching children at this age level. Perhaps these self report data do not reflect the actual techniques the teachers use. This point will be discussed later.

These teachers reported that they use non-objective records of student performance to assess their students; they use their own diagnoses to plan their teaching; and they use teacher-made tests. It should be noted that these teacher-made tests were good for low SES students but not for high SES students.

They also reported the belief that the focus of behavior modification is good. This may have been yea-saying, since behavior modification now is a well known technique and the item is one that most teachers might feel obligated to agree with. They also reported keeping tests and samples of work of reading group performance and changing reading groups on the basis of new testing. This entire set of data on assessment techniques reported by high SES teachers tends to be conflicting. For example, if it is not effective to change reading groups on the basis of new testing, what is an effective basis for changing students within reading groups?

One of the possibilities for these conflicting findings is that testing may not be done systematically or often enough to give teachers a correct estimate of the students' abilities. Another possibility is that less effective teachers were more concerned with placing students "in the right groups" than with teaching them.

Less effective high SES teachers also disagreed with the statement that non-achievers should be failed. This was expected since teachers were selected on the criterion of producing student learning gains. The less effective high SES teachers were less concerned with achievement.

Measuring success through students' apparent understanding also showed several negative correlations for high SES. This measure was made up of such items as childrens' appearing to understand; fewer questions from the class; and seatwork assignments done correctly. Apparently low effective high SES teachers were satisfied with such criteria so that they did not use or rely on tests as much as other teachers.

In organizational matters, these teachers stated their need for more help from secretarial and clerical staff. Again, there is no apparent reason why needing more clerical or secretarial staff should separate high effective from low effective high SES teachers. However, teachers who reported this need were less successful. Ineffective high SES teachers also believed that rigid routine could adversely affect learning. No data appeared for low SES teachers on this variable, because all of these teachers disagreed with this statement. Thus, few teachers feared that rigid routines would impede learning, and those who did were generally less successful in producing learning. These perceptual data complement the process data showing that effective teachers tend to have standardized routines to see that classroom housekeeping is handled "automatically."

Less effective high SES teachers reported staying at their desks a high percentage of the time instead of circulating around the room. They also reported concern about having to work with too many students each day. This concern could be related to the ability to manage a large class effectively, preventing students from making too many demands at once and keeping pupils engaged in pre-planned activity.

Our less effective high SES teachers felt that there were academic advantages to IGE. They also felt that the chief disadvantages to team teaching were time problems. These time problems concern time to plan mostly. Teachers reporting that they do independent reading about education, including methods books, books on human relations, and self-concept, showed significant negative correlations in high SES and positive but not significant correlations in low SES.

The belief that subject matter is more important than social-emotional factors was heavily negatively correlated in high SES. In other words, less effective high SES teachers (but not low SES teachers) felt that subject matter was not more important than social-emotional factors. They also did not believe that pressure to achieve and emphasis on academic mastery is beneficial. Thus, less effective high SES teachers stressed social-personal objectives more than achievement. This is borne out in their process data, also.

Less successful high SES teachers stated that math word problems increased ability to reason and strengthened problem solving skills. They also reported believing that problem solving is one of the main purposes of school. These are difficult statements to disagree with, and at face value there is no reason to suspect that these would be ineffective techniques with high SES children if

operationalized in the classroom. However, it is possible that these teachers tried to move to higher level principles too early before their students had mastered basic tool skills. Less effective high SES teachers also believed that the only important thing to teach is a principle, and that it is unrealistic to expect that students can get along without teachers. Thus, they felt that teachers were essential, but not to teach basic facts and skills.

Less effective high SES teachers reported the following beliefs about students. They felt that learning was difficult and required effort; the causes of reading failure are attitudinal,motivational, and attentional; that without proper training, mental abilities remain undeveloped; that they encouraged pupils to believe that they could succeed; and that teaching techniques should be adapted to individual children. This group of variables suggests high but positive expectations for students, so that it is difficult to see why they were not associated with effective teaching. Perhaps the classroom behavior of these teachers did not reflect these beliefs. In particular, the first few items suggest that these teachers may have responded to failure with blame rather than with reteaching efforts.

These teachers clearly were unconcerned about dress codes; most had only minimal requirements such as warmth and cleanliness. They reported believing that understanding is more important than confidence in teaching a curriculum.

They reported no particular advantage or disadvantage to TV, looking upon it as a tool, neither good nor bad. They also reported using non-book materials to teach reading. These were such things as pictures, weekly readers, and other enrichment material. They reported that Mexican-American children did have specific needs in learning English, and this is a major problem. This is in sharp contrast

to effective low SES teachers who were more concerned with the social-emotional needs of Mexican-American children. Most of these teachers would refer an emotionally disturbed child for outside help, but would deal with the problem by themselves if necessary.

Overall, our search for sharp contrasts between the beliefs and attitudes of effective and ineffective high SES teachers was disappointing. These teachers merely reported different techniques. Usually, they were neither qualitatively better nor worse if taken at face value. However, it is apparent from our process data that the correlations between what teachers reported and what they actually did in the classroom are not always high or consistent. A systematic study of this problem, on variables where comparisons are possible, is presently underway and will be presented in a future report. Hopefully, these data will help clear up some of the existing enigmas in the self report data.

Low SES Positive Correlations:

The next set of relationships will deal with teaching techniques which proved effective for low SES teachers. In general, fewer positive relationships reached statistical significance for low SES classrooms.

Effective low SES teachers reported planning daily for each subject, indicating more time spent on job-related activities outside the classroom in comparison to less effective teachers who were content with weekly or unit planning. Daily planning probably is more effective in keeping school activities optimally matched to each student's progress.

Effective low SES teachers reported the use of patterned turns in reading groups. Patterned turns (the practice of going around the group and calling on students in some predictable order) have shown consistent positive correlations with gains in both years of the study on other measures, also. Possibly, methods which insure that all children have equal turns, even if they know when a turn is coming, forces pupil accountability and insures participation better than random turns, where whether or not she is aware of it the teacher may give many more response opportunities to a few eager responders. This possibility is being investigated in a follow-up study now underway.

It is also apparent in other low inference data that getting a response is especially important for low SES children. Effective low SES teachers also report having students react to other students' answers. The process data do not indicate that this happens very often, but we suspect that when these teachers do get their students to react to one anothers' answers, the technique is effective. It is also another method to use to get responses from the children, which as noted above, proved important in low SES.

These effective teachers reported acknowledging correct answers during discussions, but asking another student to respond when the first does not know an answer. They described using a specific approach in getting their response from a child who has failed to answer a question, such as rephrasing or giving a clue, but they also reported that they prefer to keep class momentum going rather than wait long for a response from a child who may have no idea of how to arrive at the answer.

Effective low SES teachers were less likely to reject drill and "excessive" problem solving as beneficial in teaching math. Other items which related to this factor were the beliefs that students should practice math at the blackboard; that math was taught best by drilling; that the blackboard should be used a great deal; and that math should be taught by demonstrating operations and assigning concrete problems. This again supports other findings that drill, repetition, and practice are important in teaching low SES children. Also, if a child had problems with math seatwork, the effective low SES teacher reported using peer tutors, although this was negatively related to gains in the process data. These teachers also reported giving written or verbal praise for correct seatwork. In general, the process data support praise as being an effective motivating device for low SES children.

They reported meeting the needs of Mexican-American children by specific approaches to teaching language skills. This is a more concrete strategy than those reported by effective high SES teachers. We suspect that this is because low SES teachers have had a great deal of experience with Mexican-American children and have become keenly aware of their needs for improved language skills and of how to meet those needs.

Effective low SES teachers reported that they take an active role in individualizing instruction and in reteaching. This pattern is repeated in other data, and it tends to support the idea that effective teaching for low SES children requires individualizing, reteaching, and drill as much as necessary. They also reported that, if a child uses incorrect grammar, they ignore it. This is another indication that getting responses from the children is more important than the form of these responses. When a child is confused and does not understand, they usually

ask another child to supply the answer. This was one place where getting a response was not crucial in low SES. We believe that it is more evidence that it is pointless to pump students who simply have no strategies for coming up with a correct answer.

Effective low SES teachers stressed both single letters and combinations or consonant blends in teaching word attack skills in reading. Their general reading group procedure was for children to read orally. This information, coupled with the data on patterned turns, suggests that low SES effective teachers spend a great deal of time stressing pronunciation and allowing all children to practice reading as much as necessary. There was also a negative relationship for having children read silently. We suspect that reading silently is counter-productive, because many children at this level require correction of their reading by the teacher, not just practice in reading aloud. Low SES effective teachers also reported believing that a teacher frequently should ask if students understand a lesson.

In assessing student progress, effective low SES teachers reported that they used their own judgment, based on the child's performance. They favored their own diagnosis of children's needs, aptitudes, and interests when planning their teaching, using more teacher-made tests. Effective high SES teachers did not report this, however. Relationships on this measure were significantly negative for them, as were those for the use of non-objective records and keeping lists of subjective comments and observations on each child.

Conflicting relationships in opinions about grading appeared for effective low SES teachers. They reported a favorable attitude toward conduct grades and felt that some of the advantages of such grades were to give feedback to parents, the child, and other teachers. But on another measure, they reported preferring conferences with parents to using conduct grades. Low SES effective teachers also reported using a high percentage of objective grading and allowing the unit or the situational need to dictate when they gave tests. However, they also stressed the importance

of IQ in teaching and evaluating students. This combined item included belief in the importance in IQ, in the influence of IQ or past achievement on grades, and in IQ tests in general. All together, the data on tests vs. informal testing and standardized tests vs. teacher-made tests are conflicting for low SES teachers. The effective ones wanted to qualify their responses rather than commit themselves to oversimplified positions.

Effective low SES teachers reported that they arrange student activities which did not require their direct supervision. This is what we might expect of these teachers if they spend maximum time individualizing and diagnosing individual student problems. These teachers also reported that they have had experience with team teaching and can name at least one advantage of IGE (Individually Guided Education). Surprisingly, most of the effective low SES teachers oppose and dislike Plan A (a state plan to incorporate emotionally disturbed and educable retarded children into mainstream education instead of placing them in resource rooms or special education classrooms). This probably interferes with their ability to individualize, because it increases the variance among their students, making it difficult for them to give maximal attention to each individual. Also, if the teacher-to-pupil ratio is high in low SES schools, effective instruction may become even more difficult. Even so, however, we were surprised to find that opposition to plan A was strongest among the most effective teachers, given other data showing that high expectations and "can do" attitudes are associated positively with effectiveness.

Effective low SES teachers reported dealing with discipline problems by isolating a show-off or attention-getter. General misbehavior considered punishable was breaking the classroom rules. No specificity is made as to what these classroom rules are. They also would punish a group for group misbehavior. However, if an

emotionally disturbed child caused a disturbance, they referred the child for outside help instead of dealing with it alone. The same statement was made by high effective high SES teachers. Thus, effective teachers feel competent to deal with children they see as "normal," but not children they see as "disturbed." Effective low SES teachers emphasize both discipline and academic work. They believe that drill, practice, self-discipline, and academic work will increase the cognitive skills necessary for their children to succeed.

Effective low SES teachers reported that they believe that IQ is important in teaching and evaluating students. These are somewhat at conflict with other statements made by these same teachers. While they feel that teacher-made tests and their own diagnoses are more important, they still rely, according to their reports, on IQ scores and "intrinsic" abilities in evaluating their students' performance.

These teachers believed that when their classes were restive or excitable, it was because the teacher's mood was bad. A serious teaching problem to them was the wide range of student achievement. Wide variance in student performance, of course, requires a larger amount of teacher individualization. Consequently, more time and effort are required. Low SES effective teachers reported that their primary job is explaining subject matter. They stated that math is as easy to learn as any other subject and they also assigned a relatively large amount of seatwork. In these respects, they resembled effective high SES teachers.

Effective teachers in low SES classrooms also reported that they changed their style and approach to teaching as a result of school district changes in the curriculum. This may indicate greater flexibility and capacity to adjust to new demands. They also kept library books available, and they mentioned that one disadvantage of using TV in the classroom is that children already see too much of it, so that they become too passive.

These teachers favored using parents as volunteers and in instructional roles in the classroom. Thus, they were more willing to use parents as instructional resources than high SES teachers.

In reporting attitudes about affective concerns, effective low SES teachers expressed the concern that each student was getting what he needed. They also saw disadvantages in busing to achieve racial balance, because they believed that it caused emotional harm to the children. It is reasonable that this attitude would be more prevalent among teachers of low SES children, because these children usually are bused (not high SES children). These teachers were familiar with the Magic Circle technique, and they named one advantage of social-emotional activities in their classrooms as changing student behavior. A disadvantage they named was that these activities sometimes caused embarrassment with peers. They saw such activities as generally good and effective in changing behavior, but they feel that certain reticent children needed to be brought along slowly, that they would only be embarrassed if pushed too fast.

While the previous positive correlations gave us some indication of what effective low SES teachers reported about their students, their classrooms, their teaching techniques and methods, there were many more measures which were negatively correlated in low SES.

Low SES Negative Correlations:

Less successful low SES teachers reported more frequent praise, competition in "bees," presenting new material during seatwork, giving directions for follow-up seatwork, and disliking the lecture method. They also reported that they made assignments by explaining rather than by some other method (writing the pages of the book on the board, for example). This makes sense if the alternative is simply

assigning pages without explaining the work. However, the more successful teachers apparently used questions and practice items in addition to explanations when assigning seatwork. This general data set suggests that making sure the students know what to do before they start is especially important in low SES.

These teachers recognize the importance of integrating subject matter for teaching a large class. However, this item was negatively related to gains in low SES classrooms. Apparently, more basic methods such as drill, practice, and individualization were effective for low SES teachers.

Less successful low SES teachers also reported that they avoid competition in front of the whole class. However, this does not coincide with their statements about competition in "bees." Another negative relationship for low SES was giving short explanations to retain student interest. It is possible that short explanations are not effective with these children because they leave out essential steps, procedures or information. One of the difficulties for many children in low SES is that they are not able to diagnose their own problems; therefore, they often are not able to ask the relevant questions needed to get themselves out of difficulties. Short explanations may leave the class confused.

High percentages of silent reading in reading groups was also negatively correlated for low SES. This is not surprising, since silent reading does not enable the teacher to diagnose problems with pronunciation, speed, or other oral reading skills. This finding complements the positive ones in low SES for high amount of oral reading, patterned turns, and drill.

Assignment of a large amount of homework also was negatively correlated, as expected. Excessive homework is infrequent at these grade levels, but teachers who do assign relatively large amounts are less successful. We see this as more

evidence that the low SES child needs the teacher to provide correction and feedback. A belief that lessons should be flexible and open to student input also was negatively correlated. The reason for this is not obvious, although other data suggest more teacher control of the subject matter and curriculum is desirable in low SES (but not high SES).

Effective low SES teachers believed that directive teaching produces more passivity in students. In the process data, student passivity was negatively correlated with student gains. Nevertheless, the effective low SES teachers taught rather directively. One other surprising relationship for low SES students concerned exposure to enriching community activities. Perhaps these activities were rated low because they were seen as less important than other strategies for teaching low SES children.

How long these teachers waited for a response from a student depended on the child and the situation. If a child did not understand the question, the less successful low SES teacher reported that she repeated or rephrased. She also modeled correct grammar when the child used it incorrectly, and felt that a good teacher never uses compulsion in requiring students to do their work. This last opinion seems to conflict with the previous ones. More effective teachers did not always try to get a child to answer (often giving the answer instead), but they were willing to use compulsion to force a student to work on assignments.

Remedial work for slow readers included special assignments. These were not specified, however. The patterns which reading groups took depended on the students and the lesson in progress at the time. Low effective low SES teachers reported beginning lessons by asking questions involving the students' experiences.

They also reported not assigning homework or, in special cases, only a limited amount of homework. When a child answered incorrectly, less successful low SES teachers stated that they emphasized the correct response; tried to find something right about the answer; and attempted not to embarrass or criticize a child. All of these techniques seem sensible, and many show positive correlations in the process data. Apparently, there was a difference between what these teachers professed and what they actually did in the classroom.

Advantages of audio-visual aids listed by these teachers were that they provided enrichment and variety of experience. More successful low SES teachers were less enthusiastic about audio-visual aids.

Less effective low SES teachers reported the following attitudes about assessing students. They felt that teaching should be evaluated independently of learning results. Since they did not feel that learning gains were a fair criterion, they may not have pushed for them.

They also felt that one should not do much oral evaluation of students' work, and they reported the practice of keeping test scores private. Apparently, they thought that students would suffer if given honest feedback about their performance. However, feedback allows students to monitor, correct, and improve test taking skills, as well as to familiarize themselves with content and to improve their responses. Thus, these teachers may have been "protecting" their students instead of teaching them. This is another indication of the importance of appropriate teacher role definitions and expectations.

They also believed that objective exams were not good because they did not force the production and organization of original ideas. Less successful low SES teachers agreed, however, that exams were good devices to help teachers evaluate student

learning. Apparently, these teachers believed that the best exams for evaluating student learning were not objective exams. Another negative relationship for low SES was for the use of subjective criteria for judging teaching success. Again, this related directly to our definition of effectiveness as production of gains on achievement tests. These teachers disliked all attempts to judge teacher effectiveness, whether the criteria were objective or subjective. They also reported believing that effort was weighted heavily in the assignment of grades (another indicant of resistance to objective measurement and feedback).

The reported belief that students will work on their own and will establish their own level was negatively correlated in low SES groups. Again, effective low SES teachers felt it necessary to establish goals for students, at least at this level, where they have not yet developed the responsibility to work on their own and establish their own individual level and pacing. Thus, the teachers must select the proper material to be covered and to see to it that students do cover it.

Less successful low SES teachers believed that they should talk to students as they would to an adult. As one might recall, this is positively related in high SES, as expected. We are puzzled by the negative relationship in low SES.

Low SES ineffective teachers believed that the cause for reading failure lies in some intrinsic limitation in the child, such as low IQ, learning disability, emotional trauma, lack of motivation, or laziness, and not in themselves, the school, the curriculum, or the materials. Here again is evidence of a cop-out from teaching responsibilities. These teachers also reported that any change in routine or special event makes a class restive. Thus, they suggest that even the mood of the class is outside of their control. In general, low effective teachers, especially in low SES, do not feel responsible for or capable of controlling student outcomes.

In regard to classroom organization, less effective low SES teachers reported that they were willing to use learning centers, and also that their advice to new teachers would be that learning centers should be introduced by discussion and involvement of children (as opposed to demonstration and supervised practice). The advantages of learning centers they reported were mostly non-academic (variety, enjoyment, etc.). They did not see learning centers as teaching vehicles.

These teachers also reported the belief that the advantages of team teaching are a lighter academic or planning load and the chance for a teacher to teach her own specialty. As a result, she presumably can do better planning and teaching. They generally liked and supported the state's Plan A program. They also reported that they provided for individual differences by grouping. They reported having had open-classroom experience and believed that the advantage of the non-graded classroom is in procedural time and materials. These beliefs and attitudes seem more suited to high SES than to low SES classes. Perhaps these ineffective low SES teachers were trying to teach their children with methods and role definitions more suited to older or more advanced children.

Their complaints about their present classrooms were mostly storage needs (a fairly common problem in low SES classrooms). The monitors used were leader types, and they usually had six or eight specific ones named.

Less effective low SES teachers also reported belief in the importance of organizing and motivating. This included ability to control the class, ability to give clear instructional presentations, and ability to get students' respect. This is a somewhat surprising relationship. Perhaps organizing and motivating are not problems for effective teachers and, consequently,are not stressed by them.

Less successful teachers may see them as more important because they have not yet mastered them.

Less successful low SES teachers reported gearing their lessons to high achievers. This combined item includes teaching to high achievers; the belief that differences in IQ and achievement reflect the will to use intelligence; and expecting a low error rate in reading groups. This variable, as reported before, was positively related in high SES, but negatively in low SES. One possible reason for this is that low SES teachers simply are not gearing their instructional level appropriately for their classes and hence are missing many of the students. There also appears to be evidence in other data that the ideal error rate for these two groups is different. The ideal error rate for high SES children appears to be somewhat higher than the ideal error rate for low SES children, so that gearing lessons to high achievers appears more appropriate for high SES than for low SES classrooms.

Other beliefs reported by less successful low SES teachers were that correct word calling is important and they expect and emphasize it. This appears to be a common sense thing to expect of children in teaching reading. Perhaps these teachers overemphasize it or somehow teach it inappropriately. They also preferred teaching facts rather than global concepts, and reported that the purpose of homework is instructional, not just an extension of school time.

Regarding classroom materials, these teachers reported that they allow children a free choice of supplementary readers. They also reported little concern with physical limitations of time and materials within their schools. They also felt that the most effective learning came from a logically organized text. They

reported preferring lecturing or explanation to multi-media presentations. This suggests that multi-media presentations are more appropriate for low SES children, and that lecturing or explanation without such props is not as efficient in getting concepts across to them.

In regard to discipline, less effective low SES teachers reported using spanking when necessary and referring the offending student to parents or to the principal for punishment rather than dealing with him themselves. They also believed that frequent discipline problems are due to lack of interest in the subject matter. When the entire class misbehaves, they report discussing the situation and trying to find the cause.

If a child is sulking or defiant, they reported taking some definite action rather than talking, or else they simply ignored the child. It is difficult to see how they could do both; however, they reported both of these strategies. They also reported that one disadvantage of learning centers lies in the management-control problems attendant to them. They also reported lending a child supplies if he does not have them.

In summary, the less effective teachers seemed confused in their responses to classroom management items. They seemed to want to avoid dealing with problem children, and if this became necessary, to prefer to use punitive methods or to pass on the problem to someone else rather than to deal constructively with it themselves.

Personal preferences mentioned by teachers included the belief that the teacher's own personality is more important than any method she may use in getting across subject matter. Other personal beliefs: they would like more time to develop new programs; they gain personal satisfaction from working with people as opposed

to working with books and ideas (in contrast to high effective high SES teachers).

They gave no specific rules for effective teaching, and they believed that knowledge is without value without practical usefulness. They also preferred not to involve students in ugly or distressful aspects of subjects, and they received advice on reading from inservice workshops. These relationships again suggest that, although they sometimes profess laudable ideals, these teachers avoid the determined instruction in basic skills which seems so vital to the progress of low SES students at these grade levels.

In regard to affect, low SES ineffective teachers believed that one benefit of Plan A is the removal of social stigma from children. They reported being generally in favor of it and supporting it. They believed that children act out in class as a result of home and parental influences, although they were not specific as to what these parental influences were. They also reported feeling that they treat black children as they would any other child using no specific approaches. In contrast, the more successful low SES teachers had ideas about specific approaches to meet the specific needs of black children.

Less successful low SES teachers did mention concern with the social-emotional needs of Mexican-American children, however. Perhaps this is because Mexican-American children often have language problems; they come from bilingual backgrounds, and many cannot deal adequately with English. Finally, the less effective low SES teachers believed that the advantages of the non-graded classroom include emotional advantages such as freedom from restrictions and lessened fear of failure. They also reported using the Magic Circle technique.

One striking fact about what is reported by successful and unsuccessful low SES teachers is that their differences reflect merely different approaches rather than better or worse approaches, for the most part. We have interpreted some of their beliefs and attitudes, but until these are checked out with the process data, there is no way to know whether the teachers actually did what they said they did.

Total Group Positive Correlations

There were some techniques which all successful teachers reported using, and these will be described here. These included publicly praising a child frequently and using individual and group competition as motivation.

Effective teachers also reported that their methods of beginning a lesson vary depending on the lesson, the subject, and the child. They reported allowing students to call out answers, although call outs were negatively related to gains in the process data. They also reported finding discussion useful with specific subjects, but only in specific ones, and they saw it as a tailored technique to be used when it is most effective.

They make assignments by discussing, relating the assignments to the purpose of the lesson, and then probing students for understanding. In one of the groups, less effective teachers reported of making assignments by "explaining." At the moment, the difference between discussing, relating, and probing vs. explaining is not clear; nevertheless, these two relationships were different.

For their low achievers, successful teachers reported remediating by giving extra teacher time or parental help. We must suppose that the extra teacher time and parental help is used judiciously and effectively in order to enable low achievers to gain.

Successful teachers reported that their reactions to slang or dialect varied with the child, the type of slang used, and the situation. Hence, they did not either ignore it or disapprove it all of the time. Effective teachers in both groups reported that grades did much to encourage students. They also reported believing that grading is one of the most important functions of the teacher, and that they determined student involvement by verbal assessment. Thus, effective teachers checked student learning regularly and based grading primarily upon objective performance.

Regarding classroom organization, effective teachers in both groups reported that the disadvantages of the open classroom are basically disadvantages to the child, in some way, either socially or emotionally or academically as opposed to being a discipline or a noise problem or placing to many demands on teacher's time. They set up a rotating system of monitors, or classroom helpers, selected at random so that every child got a chance. They also believed that the advantage of learning centers is that they provide variety interest and enjoyment. In advising new teachers in the use of learning centers, they suggested procedural considerations in planning space and materials.

On discipline, they reported a higher frequency of severe disruptions. This was unexpected; perhaps effective teachers have more stringent criteria for judging disruption than less effective teachers do. Also, they simply may be more honest about the disruptions that occur in their classes. Effective teachers make classroom rules and discuss them with their students, but do not have student input into rule formation. This seems reasonable, because at this grade level most children are not capable of fully formulating the best and fairest rules. They need teacher guidance and monitoring to do this wisely.

Effective teachers in both groups reported that one disadvantage of the open classroom is discipline and noise. This coupled with the reporting of severe disruptions and the desire to stay on top of the classroom situation, fits with past findings.

They also reported that low achievers need more time and also may have ability limitations (again, this may reflect greater willingness to acknowledge real problems). They reported being conscious of their voice quality almost always, and felt that it was important to make rules about good teaching. They reported using direct activities to promote social-emotional growth, and stated that they viewed new developments or innovations in the curriculum, such as team teaching and IGE, in terms of how students were affected rather than how they themselves were affected.

Effective teachers in both groups reported that they ignore the sulking or defiant child and simply let him cool off, although they later talk to an upset child alone and try to discover the problem. They also reported that the best way for parents to help in aiding the children at school is to provide a warm home atmosphere.

Total Group Negative Correlations

A number of variables were negatively related in both groups, and these are listed below. One teaching technique which was less effective for the total group was teaching to subgroups rather than to individuals. In effect, this is a statement in favor of individualized instruction.

Using a high percentage of context, whole word approach in teaching reading was negatively related in both groups. This fits with the preponderance of data showing the importance of phonics and word attack skills in teaching beginning

reading. Normal reading group procedures reported by these teachers were that lessons were discussed first, followed by asking questions, and then reviewing main points. They also reported that the frequency of changes in their reading groups depends on the individual children (an unexpected finding).

Less successful teachers also believed that humor and interesting subject matter are important ingredients in teaching. By itself, this is hardly a statement with which one could argue. However, perhaps it indicates negative expectations about the interest value of the curriculum and/or the learning motivation of the children.

Of the set of variables naming typical methods of handling seatwork (presenting new material; summarizing new material; showing students their mistakes and having them correct them, practicing material; or giving directions for follow up work) none were positively correlated with gains. Only practicing the material was significantly negative for the total group of teachers. These teachers also reported giving some reward for correct seatwork and they reported that their response to a correct answer varied with the child and the question.

In assessment, gearing teaching to city-wide tests and preparing students for the Metropolitan and Stanford Achievement Tests was negatively related to learning gains. Thus, teachers who do not report being concerned with standardized tests were the most successful in preparing their students to do well on these tests!

Less effective teachers reported diagnosing student learning problems as important, and felt that promotion should be based on academic achievement rather than social or emotional reasons. They also reported that success or failure on assigned work was extremely important to grading. All three

of these reported statements lean heavily in the direction of emphasis on subject matter and academic success; nevertheless, the teachers who do not report these as being heavily emphasized in their teaching tend to have more success in accomplishing them.

Some organizational variables that less successful teachers reported were selecting their monitors by a point system based on earned rewards rather than by some method which gave each child equal chances. Their advice to new teachers would be to have lessons planned, to know their subject well, to keep students busy with academic work, and to start slowly and build their learning centers over a period of time. They also believed that the disadvantages of Magic Circle technique were procedural and managerial and that it tended to disrupt class. Thus, they were more "mechanized" and less personal in their treatment of individual students.

Disciplinary attitudes expressed by less successful teachers were that poor work was punished by having the students do it all over. They also reported using some behavior modification techniques. They reported that a few flexible rules are better than many rigid rules because situations change and rules seldom cover all situations. They also felt that if instructions are clear, few disciplinary problems will appear. In curriculum matters, they reported requiring a high percentage of errorless performance in general class discussions and engaging students in drama and music more than successful teachers. Less successful teachers also believed that knowledge of subject matter was necessary to good teaching. Again, with the exception of the puzzling finding concerning flexible rules, these teachers appear more concerned with the mechanics of teaching and with their own convenience than with the children's needs.

In terms of materials, they reported using learning centers without audio-visual aids, and being extremely concerned with the nature and the quality of instructional materials given them to use. Less successful teachers also reported high concern with student use of drugs and the belief that in most classes students should be ability grouped. They also believed that the teacher's main job was intellectual training for students. Likewise, effective teachers wished to be favorably evaluated for the work they were doing (doing well when a supervisor was present, getting favorable evaluations of their teaching, and increasing their proficiency in content areas). They also expressed concern about getting along with children and school personnel. Negative relationships were found in all groups for placing restrictions on parental involvement in the school. However, parents were not seen as playing as important a role in teacher-child rapport. Correlations with this variable were generally negative and near zero. These data also suggest that less effective teachers were more concerned with their own needs than with student needs.

Less successful teachers were concerned with emotional and social needs of their students, but this item showed significant negative correlations with learning gains. One important function of good teaching they reported was acquiring knowledge basic to a satisfying family life. They also reported using indirect activities to promote social and emotional growth. These may well be items which these teachers felt were extremely important and which they implemented in their teaching; however, success in social or emotional areas may not be reflected in gains in cognitive skills.

Also, other data question the validity of their expressed concerns. Less effective teachers, especially in low SES schools, appeared less concerned with student needs than with their own, despite occasional suggestions to the contrary.

DISCUSSION

As is typical in studies involving collection of behavioral data and self report data on the same subjects, the self report data of the teachers in our study reflected their observed classroom practices accurately on some variables but not on others. Along with the sources of possible and, in many cases, probable error in the self report data (to be discussed below), the known discrepancies between the self report data and behavioral data lead us to question the validity of the self report data and to caution readers to do likewise. However, before getting into the difficulties with these data, we will briefly review the major trends in the findings.

First, an important element of teaching at all types of schools which seems to separate the effective from the less effective teacher is the degree to which the teacher takes personal responsibility for the learning of her students. The more effective teachers see themselves as responsible for and, for the most part, capable of achieving learning outcomes, while the less successful teachers tend to minimize their degree of personal responsibility by stressing the importance of home influences, school limitations and problems beyond their personal control, and the like. A related set of findings concerns another aspect of the teachers' role definitions: the more effective teachers expect teaching to be a demanding job, but they are prepared to do it. They have complaints, but their complaints have to do with their effectiveness in getting the job done, and effectiveness in getting the job done is usually defined in terms of what is good for the students. In contrast, the less effective teachers appeared to have the implicit idea that teaching is supposed to be a relatively non-[illegible]ing occupation, and their complaints tended to concern

things which caused problems to themselves personally more so than things which interfered with their progress in maximizing the development of the children. There are also some indications in the data that the less effective teachers not only have more complaints of this kind but tend to react to them with passive aggressive behaviors and anger, while more effective teachers are more likely to take action and to focus their attention on changing conditions that are interfering with their abilities to teach the children optimally. Taken together, these data are a form of locus of control. The more effective teachers tend to feel in control of their situation, while the less effective teachers tend to feel in less control of the situation and less willing to take responsibility for what goes on.

Another major difference between the more effective and the less effective teachers was the degree of complexity and richness in the responses concerning how certain problematic situations could be solved (this was more evident in inspection of the raw data than in the data included in this report; it will be investigated systematically by recoding the raw data for complexity, and the results will be presented with appropriate statistics in a future report). Generally, effective teachers seemed to have more to say and more specific things to say about what to do in given situations. They also tended to qualify their responses more, in particular tending to reject extreme or overly simplistic statements in favor of statements that took into account individual differences and situational factors. Even though they felt more in control of their situation, they were less likely to think that they knew all the answers or to believe that adherence to some relatively simple set of principles would insure success.

A third major theme running throughout several measures concerned the combination of the teachers' role definitions for themselves and for the students. The more effective teachers had positive expectations in the sense that they

thought the children could and would learn, but these expectations were qualified in several important ways. First, they believed that the children could learn only a limited amount working on their own, and were in need of lecture, demonstration, guidance, feedback, and other assistance from the teacher. In general, they believed that it was up to the teacher to structure and control classroom events. They also stressed that learning required practice and effort, sometimes including considerable repetition and drill. Although there were some (apparently valid) differences by school SES in the nature of teacher perceptions of student motivation and abilities, effective teachers usually had realistic rather than romantic ideas about the children that they taught, being aware of and willing to note their limitations as well as their strengths. In contrast, the less effective teachers in both social class groups usually had somewhat romanticized notions of the motivations and abilities of the children, and these in turn were connected with less effective definitions of the teacher and student roles. They professed to believe that the children were capable of much more learning and in possession of much greater motivation than the facts seem to support, and consequently were more prone to define their own role as one of providing stimulation to students who would then take it and use it to (in effect) teach themselves, in contrast to defining their role as including responsibility for teaching the children personally.

It is tempting to combine these observations by suggesting that the less effective teachers were lazy and/or incompetent and were rationalizing their failures by externalizing the causes of problems and by maintaining unrealistic expectations and role definitions concerning the children which made it easy for them to rationalize failures as due to factors in the child rather than in them-

selves when failures occurred. In fact, this may be the case for some or even most of these teachers. However, it should be kept in mind that romanticized notions of children and of teacher-student relationships are virtually universal in teacher preparation programs and in the textbooks used in these programs, so that there is reason to postulate that the teachers were reporting ideas that they have been taught and led to believe, and which they maintain despite occasional or even overwhelming evidence to the contrary. This would not be particularly unusual or unique to teachers; members of virtually any profession have belief systems which are shared by all or most of the membership because they are taught in the textbooks and mutually reinforced in the profession, even though they are not necessarily correct. Usually these are corrected eventually, but a combination of cultural lag and group conformity pressures can maintain them for some time. This has happened in medicine, pediatrics, psychiatry, and clinical psychology, to name only a few professions, and there is no reason to believe that it isn't happening in teaching, too.

In this connection, it is worth noting that most of the teacher and student role perceptions that appeared inappropriate for teachers working at these grade levels and with the types of children with whom they were working might have been appropriate and even optimal had they been working with older and/or better motivated and prepared students. In short, the teachers were (or at least reported that they were) operationalizing approaches to teaching that reflect the ideas of Dewey, Bruner, Flanders, and others who agree with one another and mutually support the kinds of role definitions involved in approaches like discovery learning, pupil-to-pupil interaction, use of student ideas, self-paced instruction, minimizing teacher talk and maximizing student talk, and the like. Laboratory evidence and some field evidence does support these ideas

for older students, at least for certain purposes, but our data and that of others (cf. Soar, 1972) suggest that they are inappropriate for the first few grades of elementary school (as well as for preschool). One important implication of all this is that we may be making a serious mistake in dividing teacher preparation into primary vs. secondary.

Evidence of the kind found in this study, as well as findings from developmental psychology, suggest that the more important differences in the nature of the teacher-learning process occur before vs. after the child reaches the stage of concrete operations. In terms of the school curriculum, it would seem that the kinds of teaching that occur in the first three grades differ considerably from the kinds of teaching that occur starting around the fourth grade (in middle class schools; these figures would be correspondingly higher in lower class schools). Perhaps we should seriously consider separate and more specific training for teachers intending to work with students in the first few grades of elementary school, where the emphasis is on instruction and practice in fundamental tool skills, and where the children usually have not yet reached the stage of concrete operations (or, at least, have not yet moved securely into it to the point that all or most of the important limitations of preoperational functioning have disappeared). The evidence from this study, as well as considerations from numerous other empirical and theoretical sources, suggest that the notions concerning teaching propounded in typical teacher preparation textbooks are much more appropriate for older students than they are for students in the early elementary grades, and, in some respects, are not merely inappropriate but flatly and demonstrably wrong.

In view of the above, it is interesting to note the similarities as well as the differences in patterns of effective versus ineffective teaching in low versus high SES schools. In high SES schools, where the children were generally brighter, more developed cognitively, and more highly motivated for school, the more successful teachers generally taught to the high achievers, fostered competition, challenged the group, and kept coming up with a variety of ways to stimulate the children to new and better learning. Motivation was not usually a problem, nor was serious classroom misbehavior. Consequently, the teachers tended to concentrate on avoiding overly destructive competition by making sure that everyone got opportunities to respond and equal attention from them, and by fighting boredom through introducing a variety of learning media and curricula to supplement the basic books. These teachers tended to teach the basic curriculum to the point of over-learning, but still have much time left over for enrichment activities.

In contrast, in low SES schools the teachers often had to fight for motivation, to struggle to succeed in getting the children to master even the basic curriculum, and to work hard to overcome motivational and learning problems with individuals. They placed much less stress on variety of activities and on enrichment activities because they had little time for them; just teaching the children the basic curricula occupied almost all of their time. Furthermore, they had to cope with more serious problems, both problems in learning due to a combination of limited abilities and poor environmental backgrounds supporting the school, as well as severe and disruptive classroom behavior of the sort that was very rare (at these grade levels at least) in the high SES classrooms. The more successful

teachers responded to these demands with determination and apparent success, taking them as part of the job and as problems to be overcome rather than insurmountable difficulties beyond their control. In contrast, the less successful teachers apparently could not cope. These teachers verbalized concern with the students' affective development and other romanticized notions, but at the same time they were quick to resort to physical punishment or to seeking help from the principal or other outside sources when faced with a problem rather than trying to cope with it themselves. Many of the relatively less successful teachers working in low SES schools might have been much more successful if they were working in high SES schools, since their job definitions and reported behavior seemed to be more appropriate for high SES than low SES children.

Additional comments about these questionnaire and interview data, along with a discussion of non-linear relationships between these data and measures of student learning can be found in Brophy and Evertson (1974b). We will close the present report with some additional discussion of the nature of these self report data, stressing some of their limitations and some of the factors that must be kept in mind when evaluating them.

First, like any self report data, they are subject to response bias influences. These include social desirability, logical error, and various response sets. Social desirability in the usual sense (telling the interviewers what they want to hear) was not a direct problem in this study because the teachers knew that the study was concerned with developing hypotheses rather than testing them and that no particular kinds of teaching were expected to be better than others, but obviously they were affected by their own definitions of appropriate teaching. Often these came from their own experiences, but in varying degrees each teacher

probably was influenced by the ideas that had been presented to them in courses, in-service workshops, textbooks, journals, and other sources of information about "good" teaching. Thus, although we as researchers genlunely were not seeking or favoring any particular kind of response to our questionnaire and interview items, most of them involved issues which are considered important in educational circles and which could easily be perceived as having a particular "right" answer if the teacher had been exposed to a certain point of view systematically. This undoubtedly has been the case with many issues contained in our questionnaire and interview. Consequently, social desirability undoubtedly influenced the interview and questionnaire responses to some degree in all of our teachers.

Other forms of responses may have been involved also, and we will systematically investigate the extent and possible influence in these in future investigations and reports. Probably the most important ones are extreme response versus central tendency response sets, and "yea-saying" versus "nay-saying." It is possible, especially with items on which there was overwhelming agreement or disagreement, that some of the findings may be attributable to extreme versus central tendency response sets rather than to true differences in the opinions of the teachers. Conversely, on items where there was much disagreement and much ambiguity concerning a "correct" answer, the data may have been influenced to some degree by "yea-saying" versus "nay-saying" response sets. The likelihood that the latter influence could have seriously influenced results seems small, but it will be investigated nevertheless.

Other sources of influence on the findings that should be kept in mind include the amount and location of variance. Many items showed no variance at all because every teacher agreed with it or disagreed with it. Other items

showed variance, but the distributions were severely skewed because most of the teachers either agreed or disagreed with the item and the remaining teachers tended to cluster at the same end. Thus, the correlations for such items were produced by the responses of the subset of teachers who disagreed with the majority. The location of agreement or disagreement with the item is also important. For example, the interpretation of a positive correlation involving an item such as "tests are important for motivating children," would be very different depending on whether most of the teachers agreed with the item versus most of the teachers disagreed with the item. A positive relationship would indicate that teachers relatively more favorable towards the idea that tests are a good motivating device were more effective than teachers less favorable to this idea, but the full picture concerning this item would need to take into account the question of whether most teachers agreed with the item versus whether most teachers disagreed with it. The implications for the use of competition would differ considerably depending upon which of these two cases was in effect.

Analyses of these possible sources of error in the data will be investigated and discussed in future reports. Also, where parallel items exist making it possible, the question of the validity of teacher perceptions of their own behavior will be investigated systematically and discussed. In addition to gathering this information for its own sake, we will also analyze the relationship between validity of self report (or, in other words, the degree to which the teacher is accurate and honest in reporting what she

does in the classroom) and student learning gains, and will also analyze the relationship of richness and specificity of responses on the interview (and possibly also tendencies to qualify questionnaire responses) to student learning gains. We suspect that, in addition to the fundamental aspects of role definitions and acceptance of personal responsibility for outcomes, the degree to which teachers possess and articulate elaborated strategies for dealing with instructional problems is probably one of the fundamental aspects of effective teaching. One methodological implication of all of this is that open ended items such as those used in our interview are probably more useful as indicators of teaching effectiveness than forced choice items such as those used in our questionnaires. Not only are the questionnaires much more open to the various sources of response bias mentioned previously, but they also restrict teachers to choices that might not reflect their full thinking on the subject. Many of our teachers resisted answering questionnaire items because the answers were all over-simplified, so that they qualified their responses by writing on the margin or the back of the page. Usually these qualifications seemed quite sensible and appropriate, and they tended to relate to the teachers' awareness of student individual differences and the necessity for taking these into account (as opposed to defensive reactions involved in not wanting to answer a particular question for fear of saying something "wrong").

Another tricky consideration that will be addressed in future analyses of the self report data is the question of context effects on teachers. Depending upon the everyday conditions under which they must work, teachers have differing norms and expectations as to what they consider to be a serious versus a minor problem, an important versus unimportant resource, etc.

Consequently, teachers' answers to some of the questions about their concerns and about the relative importance of various techniques or resources must be interpreted with an eye toward what the teachers' consider "normal." As an extreme example, certain things were not correlated with student learning gains, not because the teachers did not think they were important, but instead because there was no variance on the item because every teacher agreed that it was very important. In addition, many teachers did not consider some things important simply because they do not encounter the problem in the context in which they teach. As an example, most teachers working in middle class schools did not consider serious disruptive behavior to be an important problem, apparently because it did not occur very often. This was not true for teachers working in low SES schools. Conversely, the problems of over-eagerness to respond and over-competitiveness were considered to be of some importance by teachers working in high SES schools, whereas these were not important considerations for teachers working in low SES schools, who instead were faced with the problem of attempting to increase motivation. Teacher responses concerning minority group children are another example of this same phenomenon. Most of the teachers working in high SES schools either had not taught minority group children at all because of de facto segregation, or had taught only a few who were from middle-class families and who did well in school and presented no particular problems. Thus, the responses of these teachers concerning the needs of minority group children were not very meaningful because they were not based on direct experience or were based on limited and atypical experience. In contrast, the responses of teachers who worked almost exclusively with minority group children were based on years of direct experience, and one of the loud and clear messages in these responses was

that attempts to characterize groups as such are mistaken and that such children need to be thought about and taught as individuals and not as representatives of minority groups.

In summary, there are a number of considerations which must be taken into account in evaluating the meaning of the teacher responses to our self report instruments. Obviously, the data cannot be taken at face value because of various response bias influence. Also, even data which are valid in the sense that they represent teachers' true perceptions must be interpreted with an eye toward context differences that make some teachers more credible than others on a particular issue. The problem of different norms for different teachers working in different kinds of situations will also have to be taken into account, as will the problems of the degree and location of variance in responses to a particular item. These and other considerations will be systematically investigated and discussed in future reports.

In closing, we probably should state first that, in general, our self report data contain numerous instances of inconsistency between self report and observed behavior, and are known to be subject to a host of biasing influences. Thus, one implication which is hardly new but which is probably worth stressing yet again is the importance of collecting behavioral data rather than self report data if understanding of the precursors of student outcomes is to be achieved. Self report data are much cheaper and easier to collect, but they contain so many ambiguity problems that they may cause more confusion than enlightenment. However, these statements should be qualified with the notion that certain kinds of self report data can be useful and probably should be collected. In particular, we would mention open-ended interview questions which allow

the teachers to state what it is that they are trying to do, how they are trying to do it, and why they are doing it the way that they are doing it. Purely behavioral data without information about the perceptions of the teacher and the general contextual factors influencing her behavior can be just as misleading as biased and invalid self report data. However, the self report data must be collected under conditions which would minimize the likelihood of social desirability or other influences on the teachers that would make them less than honest in their responses, and the data collection instruments should be open-ended rather than forced choice. Where forced choice items are used, they should come at the end of a "funnel" series of questions that began with a very open-ended question and proceeded by degrees to more specific questions. This way, the data will contain some internal checks on the validity of responses to forced choice items. In any case, our data seem to suppport once again the conclusion that behavioral data are more valuable than self report data, and that self report data in response to open-ended questions are more valid than self report data in response to forced choice instruments.

Finally, readers again are urged to consult the Brophy and Evertson (1974b) report which includes nonlinear as well as linear relationships and which includes behavioral data as well as self report data. Many relationships which did not appear in the linear analyses appeared in nonlinear analyses, and many of the linear relationships which did appear were elaborated and/or qualified by these nonlinear data. Therefore, readers interested in a complete, detailed report of the results should consult this source.

REFERENCES

Brophy, J. Stability of teacher effectiveness. American Educational Research Journal, 1973, 10, 245-252.

Brophy, J. and Evertson, C. Process product correlations in the Texas Teacher Effectiveness study: Final Report. Research Report No. 74-4. The Research and Development Center for Teacher Education, The University of Texas at Austin, 1974a.

Brophy, J. and Evertson, C. The Texas Teacher Effectiveness Project: Presentation of non-linear relationships and summary discussion. Research Report No. 74-6. The Research and Development Center for Teacher Education. The University of Texas at Austin, 1974b.

Soar, R. An empirical analysis of selected Follow Through programs: an example of a process approach to evaluation. In I. Gordon (Ed.). Early childhood education. (71st Yearbook of the National Society for the Study of Education). Chicago: NSSE, 1972.

Table 1. Composition of Combined Scores from Teacher Questionnaire Showing Factor Loadings and Directions of Loadings.

1. Motivate by using public rewards
   - +80 Motivate by public recognition
   - +72 Motivate by exemption from tests
   - +71 Motivate by contests, competitive games
   - +73 Motivate by individual prizes, rewards

2. Believe in good organization of materials and procedures
   - +75 Clarify attitudes, beliefs, problems
   - +77 Organize and arrange the classroom
   - +75 Have a system of classroom monitors & helpers
   - +74 Send papers home for parents to see
   - +66 Knowledge & use of behavior modification techniques

3. Focus on careful instructional organization and systematic teaching methods
   - +58 Explain, inform, show how
   - +61 Focus attention on student's work & ideas vs. teacher's
   - +65 After wrong answer, ask other
   - +59 Organize learning around teacher or text questions
   - +74 Rigidly follow planned schedule
   - +59 Neatness

4. Emphasis on good classroom control
   - +74 Require undivided attention
   - +63 Emphasize that students are here to study and learn
   - +81 Insist that students stay in place and work
   - +72 Ability to control the class
   - +80 Keep a quiet room

5. Believe in the importance of individualizing student learning
   - +80 Provide for individual differences
   - -84 Provide the same materials for each student in the class
   - +85 Keep individual files on students

6. Believe in the importance of organizing and motivating
   - +75 Ability to control the class
   - +94 Ability to give clear instructional presentations
   - +47 Ability to motivate students to enjoy classroom work
   - +81 Ability to get student respect
   - +83 Ability to do remedial work with slow learners

7. Believe in the importance of affective aspects of teaching
   - +72 Kindness
   - +51 Sense of humor
   - +71 Honesty
   - +77 Creativity
   - +90 Enthusiasm
   - +69 Warmth

Table 1, cont'd.

8. Gains satisfaction from working with people
   - +56 Working with other teachers
   - +81 Contact with children
   - +71 Working with principal and supervisors
   - +87 Working with parents
   - +75 Teaching the children
   - -22 Children who are discipline problems
   - +60 Respect from members of the community

9. Gains satisfaction from intellectual stimulation and public recognition
   - +87 Chance for promotion
   - +82 Chances for intellectual stimulation
   - +68 Planning lessons
   - +75 Promoting teachers' rights

10. Gain satisfaction from dedication to difficult teaching problems
   - +89 Teaching children who are not interested in learning
   - +89 Teaching non-English speaking students

11. Academic grades do much to encourage students
   - +55 High grades reinforce by making student work harder
   - +84 Use of report card grades preferred
   - -52 Low grades discourage and reinforce negatively
   - +71 Prefer a finely graded reporting system
   - -67 Best evaluation is a written description
   - +68 Grades should reflect local community standards
   - +85 Grades should produce competition
   - -60 Giving students failing grades does little to promote achievement

12. Gain satisfaction from constructing and marking homework and tests
   - +91 Constructing homework assignments and tests
   - +91 Marking homework assignments and tests

13. Exams are good devices to help the teacher evaluate student learning
   - +65 Reporting system: satisfactory/not satisfactory (preferred)
   - +52 Differences in IQ and achievement reflects will to use intelligence
   - +65 Exams help student evaluate his own learning
   - +82 Good tests call for recall of isolated and difficult bits of knowledge

14. IQ is important in teaching and evaluating students
   - -58 Eliminate IQ tests because of labeling and no useful information
   - +62 High influence of IQ or past achievement on grades
   - +66 IQ or general ability influences teacher grading
   - +64 Uses a curve in grading
   - +71 IQ tests are the most valuable in making decisions about a student

15. Tests should be used to improve teaching, not to evaluate students
   - +66 Reporting system: parent conferences without grades
   - -68 It's valid to set passing test score before scoring tests
   - +74 Tests should be basis for improving teaching, not grading students

Table 1, cont'd.

16. The school is not as responsive to student needs as it should be

+73	Too many students indifferent to school
+78	The mandated curriculum is not appropriate for students
+73	The psychological climate of the school
+88	Student health and nutrition problems that affect learning
+82	Chronic absence and dropping out of students
+75	Wide diversity of student ethnic and socioeconomic backgrounds
+76	Student use of drugs
+80	Adjust student grouping
+68	Change ways of evaluating
+77	Spend existing funds differently

17. Curriculum and academic materials are inappropriate but unavoidable

+73	Diagnosing student learning problems
+71	The lack of instructional materials
+76	The mandated curriculum is not appropriate for students
+73	Feeling under pressure too much of the time
+77	Frustrated by routine and inflexibility of the situation
+78	Lack of academic freedom
+73	Learn new content
+74	Revise content and materials
+71	Try new ways of teaching
+73	Spend existing funds differently
+87	Make curriculum decisions
+71	Change staffing patterns
+72	Develop inservice programs

18. Teachers need more help from others so they can have more time with students

+67	Measuring and reporting student achievement
+85	Specialized personnel
+81	Principals and administrators
+85	Teacher aides
+90	Community
+64	Subject-matter organization
+77	Work with students

19. Concerned with doing job well and being liked by students for it

+84	Lack of respect of some students
+72	Standards and regulations set for teachers
+80	Selecting and teaching content well
+67	The mandated curriculum is not appropriate for all students
+73	Whether students are learning what they should
+60	Whether the students really like me
+54	Increasing student's feelings of accomplishment

20. Concerned with getting along with children and school personnel

+83	Where I stand as a teacher
+88	Motivating students to study
+78	Working productively with other teachers
+78	Maintaining the appropriate degree of class control
+73	Acceptance as a friend by students

Table 1, cont'd.

+67 Understanding the principal's policies
+63 Meeting the needs of different kinds of students
+76 Being fair and impartial
+60 Students who disrupt classes

21. Concerned with providing individualized and reality-based instruction
+87 Challenging unmotivated students
+92 Adapting myself to the needs of different students
+81 Whether students can apply what they learn
+82 Instilling worthwhile concepts and values

22. Concerned with guiding students and providing stable emotional and intellectual climate
+69 How students feel about me
+69 Student health & nutrition problems that affect learning
+79 The psychological climate of the school
+56 Clarifying the limits of my authority and responsibility
+74 Assessing and reporting student progress
+69 Chronic absence and dropping out of students
+62 Feeling more adequate as a teacher
+78 Guiding students toward intellectual and emotional growth
+83 Adequately presenting all of the required material
+81 Slow progress of certain students
+57 My ability to present ideas to the class
+80 Helping students to value learning

23. Concerned with physical limitations in terms of time and materials
+77 Lack of instructional materials
+65 Rapid rate of curriculum and instructional change
+69 Feeling under pressure too much of the time
+69 Being asked personal questions by my students
+89 Lack of academic freedom
+83 Teaching required content to students of varied background

24. Concerned about being favorably evaluated for doing a good job
+86 Doing well when a supervisor is present
+85 Getting a favorable evaluation of my teaching
+79 Being accepted and respected by professional persons
+87 My ability to present ideas to the class
+65 Increasing my proficiency in content

25. Feels it is necessary to teach particular facts
+77 Better to ask questions, then call on student
+75 Textbooks should be primary focus
+76 Teacher should do considerable amount of sheer repetition
+75 Math is best taught by constant drilling

26. Class is centered around student input
-52 & direct presentation of material
-70 Material besides texts are unimportant
+73 Students will think for themselves if permitted
+69 Begin explanation with example of some everyday object or event
-71 Teaching for efficient learning is essentially directing and telling
+60 Ask frequent questions

Table I, cont'd.

27. Lessons are flexible and open to academic student input
- +70 Students' questions are usually quite thoughtful
- +70 Schools today develop all but kids' minds
- +79 Teacher should watch faces for signs of understanding
- -58 A good teacher will need review sessions only once or twice a semester
- -75 Lesson success is proportional to how free of dramatics it is

28. It is important to summarize and review lessons to make sure everyone understands
- +84 Summarize lesson content
- +84 Review yesterday's lesson
- -60 Its not fair to waste time on questions from a few when most understand

29. Teach facts rather than global concepts
- +85 Education should teach people what to think
- +85 Skill learning should move from "whole" to "parts"

30. Prefers lecture or explanation to multi-media presentation
- +72 A good teacher has little need for charts, maps, diagrams, etc.
- +83 The use of a variety of curricular materials very often leads to confusion
- -75 Even at risk of boring some, teacher should explain thoroughly

31. Students need guidance but not rigid structure
- -51 Students should be allowed to read just about anything
- +82 Better to help students to learn how and do than to show them
- +82 An active discussion is worthwhile, regardless of the subject

32. Involve parents directly in the classroom
- -65 Role of parents: at-home tutors
- +78 Role of parents: field trip help
- +77 Role of parents: volunteers for school duties
- -69 Role of parents: support teacher

33. Prefer to bring resources in to class rather than take children out of class
- +67 Teacher aides or assistants
- +79 Learning centers with audio-visual aides
- -82 Field trips
- +68 Supervisors, curriculum advisors, etc.

34. Uses A/V aids
- +84 Films
- +71 TV, video tapes
- +92 Filmstrips

35. Use of visitors from community
- +80 Parents or other volunteers
- +80 Classroom visitors who make presentations

36. Competition is desirable
- +85 Frequently use competition to stimulate motivation
- +55 Grades should produce competition
- +84 Competition should be emphasized since it provides for motivation

Table 1, cont'd.

37. Elaborate planning and preparation is not necessary
- +72 Preparation: general, over weekend
- +75 Preparation: all subjects within units
- -72 Preparation: Other
- +65 Teachers should plan less painstakingly and increase student initiative
- +65 It is often unnecessary to plan lessons

38. Plan daily for each subject
- +87 Preparation: each night
- +87 Preparation: within each subject, one at a time

39. Teaching to individuals rather than to subgroups
- +83 % of teaching devoted to individual
- -77 % of teaching devoted to sub-groups
- +71 Individual instruction is a sign of good teaching
- +60 Teacher should use variety of books so that all students will find subject interesting

40. Emphasis on class as a whole rather than individuals
- +85 Differentiation of work according to ability doesn't seem to work
- +83 Teacher would look more to the class as a whole when talking, rather than at individual student

41. Pressure to achieve and emphasis on academic mastery is beneficial
- +74 Subjects are easy and anyone can learn them with ease
- +65 Student should be told they can get their school work if they really try
- +66 Require more of abler students
- +76 A teacher should continue to urge a student to do better work
- +74 Key to learning is high standard and pressure
- +55 Teacher's primary concern should be subject matter mastery

42. Lessons should not be flexible
- +78 % mastery of curriculum
- +72 Teacher should teach the prescribed course without deviation
- +74 The more difficult the task the better for the students

43. Learning is not difficult but it requires effort
- -55 Learning is difficult and tiring to both teacher and student
- +56 Not necessary to spend much time with bright kids
- +81 A good teacher must be a determined person
- +75 Ideal error rate for seatwork and homework

44. Humor and interesting subject matter are important ingredients of teaching
- +71 A sense of humor is an important teacher quality
- +79 Laughter is an important ingredient of schoolwork
- +64 Material must be interesting for the kids to learn
- +66 One must like kids to be an effective teacher
- -65 Students can be taught important and valuable things without arousing their interest

Table 1, cont'd.

45. Believe students will work on their own and establish their individual level
- +80 Students will think for themselves if permitted
- +73 Students should not all be encouraged to attack school work in same way
- -57 It's waste of time and energy to try to teach some kids

46. Personal and social growth is more important than academic growth
- +63 Schooling objective: train students to cope with social adjustment
- +80 Teacher personality more important than pedagogical qualifications
- +83 Attention should be maintained by being interesting vs. asking for it

47. Emphasis on discipline and academic work
- +66 Stricter rules would eliminate discipline problems
- -79 Schools today develop all but kids' minds
- +75 A teacher shouldn't acknowledge her ignorance of topic to kids
- -70 School work should never be assigned as a punishment
- +68 Teachers lose effectiveness because they are so energetic

48. Teachers should make lessons interesting
- +84 A student should expect school work to be interesting
- -83 In dramatic lesson, kids may miss the point
- +80 A good teacher must be a determined person

49. Learning is more important than attitudes and happiness of students
- +76 Teachers should teach subjects rather than attitudes
- +76 Happiness in class is less important than learning

50. Learning should be interesting, not laborious
- +71 Teaching should be interesting, even at expense of 100% accuracy
- -82 Achievement of knowledge & understanding unavoidably unpleasant and laborious

51. Measure success by class work habits and success in teaching slower children
- +79 Measure of success: children get right down to work
- +79 Measure of success: slower children also appear to understand

52. Measure success through student's understanding
- +69 Measure of success: children appear to understand
- +73 Measure of success: fewer questions from the class
- +73 Measure of success: seatwork assignments are done correctly

53. Drill and excessive problem-solving is beneficial in teaching math well
- +84 Students should practice math at the blackboard
- +72 Math is best taught by constant drilling
- +70 Use the blackboard a great deal
- +67 Teach math by demonstrating operations & assigning concrete problems

54. Teaching strategies should be teacher-centered and well structured
- +59 Assume students think logically
- +58 Teacher should set the tasks & make decisions
- +70 Teachers should teach subjects rather than attitudes
- +83 Textbooks should be primary focus
- +74 Teacher must be the authority in knowledge & discipline
- +55 Usually it is the difficult & uninteresting subjects that do good

Table 1, cont'd.

55. Believe subject matter is more important than social-emotional factors
- +84 Correct English errors immediately
- +72 Failure is most often due to laziness
- -76 Knowledge is frequently emphasized beyond relevance & usefulness

56. Believe teacher's job includes helping child to teach himself along with some parent duties
- +84 A good teacher is like a good parent
- +84 Best teacher is one who teaches learner how to teach himself
- -62 It is necessary to teach many unrelated facts

57. Recognizes importance of integration of subject matter for teaching large class
- +84 Last 3-4 days (summary & integration) make semester succeed or fail
- +84 Teaching a large class can be done as effectively as a small class

58. Preference for and orientation to high achievers
- +68 Teach to high achievers
- +75 Differences in IQ & achievement reflects will to use intelligence
- +79 One should expect student to forget much that is told him

59. Instruction time is low because of control problems and too few personnel
- +66 Too many non-instructional duties
- +73 Working with too many students each day
- +58 Students who disrupt classes are a very serious problem
- +79 Principals & administrators are needed
- +84 Teacher aides are needed

60. Feel problems stem from children themselves and their environment
- +86 Too many students indifferent to school
- +90 The values & attitudes of the current generation
- +86 Student health & nutrition problems that affect learning

61. Interest in out-of-classroom aspects of teaching
- +78 Teacher organizations
- +75 Colleges & universities
- +79 Work with parents
- +77 Learn new ways to teach

62. Use of student conduct and personal qualities in assigning academic grades
- +76 School motivation and obedience to classroom rules
- +76 Personal qualities of the student are important

Table 1, cont'd.

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Table 2. Correlations between Teacher Questionnaire Uncombined Scores and Student Residual Gain Scores (averaged across four years) on the Metropolitan Achievement Tests (decimal points omitted).[1]

Number	Process Variable	Word Knowledge	Word Discrimination	Reading	Arithmetic Computation	Arithmetic Reasoning	Mode[2]
1.	High % of Objective Grading	11 13 23	26 46 13	24 27 30	26 36 26	12 31 25	
2.	Frequent Discipline Problems Due to Lack of Interest in Subject Matter	-20 04 -30	00 -02 04	-23 -37 -20	-53 -78 -33	-46 -70 -37	
3.	Teacher Stays at Her Desk High % of Time	-24 08 -38	-34 06 -57	-27 31 -54	-14 29 -43	-24 21 -35	
4.	High % of Lectures and Demonstrations	-02 -03 03	-09 -06 -14	-02 00 -04	-13 03 -21	-19 -11 -21	
5.	High % of Questions with One Correct Answer	-25 -20 -28	-31 02 -62	-28 -19 -40	-21 -12 -29	-41 -29 -53	
6.	High % of Errorless Performance Required for General Class Discussion	-14 -20 -14	-08 13 -27	-37 -39 -40	-35 -19 -51	-25 -35 -25	
7.	Ideal Errorless Rate in Reading Groups	-08 31 -43	12 45 -21	-24 -31 -36	-35 -28 -45	-29 -33 -30	
8.	High % of Context, Whole Word Approach	-22 -22 -19	-23 -28 -14	-13 -27 -09	-25 01 -52	-37 -31 -38	
9.	High % of Silent Reading in Reading Groups	-26 -52 07	-11 -32 25	04 -21 22	-08 00 -09	-21 -12 -18	
10.	High % of Individual Reading in Reading Group	13 -13 28	15 -17 36	20 35 16	15 08 19	23 19 25	

Table 2, cont'd

Number	Process Variable	Word Knowledge	Word Discrimination	Reading	Arithmetic Computation	Arithmetic Reasoning	Mode	
11.	Allow Students to Call Out Comments	16 09 --	05 18 --	32 33 --	31 37 --	23 29 --		A
12.	Does Favor Social Promotion	-- -- --	-- -- --	-- -- --	-- -- --	-- -- --	D	D
13.	Does Take Neatness Into Account for Grading Purposes	20 -- --	07 -- --	12 -- --	01 -- --	09 -- --	D	A
14.	Washroom Located Outside Classroom	-32 -- --	-34 -- --	-37 -- --	-55 -- --	-48 -- --	D	D
15.	Achievement Test Scores are More Valuable than Grades for Information About Students	-09 05 -26	-10 -13 -15	-18 -16 -20	-01 08 -14	-02 -03 -18		
16.	Mark Only Absentees Instead of Calling Roll all Year	05 -- --	00 -- --	17 -- --	-26 -- --	03 -- --	D	D
17.	"Dresses Up" Lesson to Make It More Interesting	-- -- --	-- -- --	-- -- --	-- -- --	-- -- --	A	A
18.	Assigns Large Amount of Seatwork	15 42 -12	24 60 -19	-22 -24 -31	09 -23 12	-08 -24 10		
19.	Assigns Large Amount of Homework	07 14 --	27 39 --	-15 42 --	-21 -27 --	-37 -69 --		D
	Believes Success is Indicated by:							
20.	Class is Well Behaved	-28 -21 -30	-15 -27 -03	-24 04 -39	-18 -02 -29	-23 -33 -17		

Table 2, cont'd.

Number	Process Variable	Word Knowledge	Word Discrimination	Reading	Arithmetic Computation	Arithmetic Reasoning	Mode
21.	Children Enjoy School	--	--	--	--	--	A
		-- --	-- --	-- --	-- --	-- --	A A
22.	Children Work on Their Own	--	--	--	--	--	A
		-- --	-- --	-- --	-- --	-- --	A A
	Correct Seatwork by:						
23.	Having Teacher Aide Do It	--	--	--	--	--	D
		-- --	-- --	-- --	-- --	-- --	D D
24.	Doing It Yourself	-02	03	-12	10	07	
		-- --	-- --	-- --	-- --	-- --	D D
25.	Having High Achievers Correct It	--	--	--	--	--	D
		-- --	-- --	-- --	-- --	-- --	D D
26.	Having the Children Trade Papers	-09	14	-15	05	01	
		06 --	27 --	-33 --	-05 --	26 --	D
27.	Going Over It Orally	-08	09	-28	-14	-06	
		06 -18	06 08	-22 -30	-31 -06	-- -16	
28.	Other Methods (Not Specified)	03	-10	-12	-20	-26	
		21 -11	30 -43	-02 -18	-09 -32	-08 -43	
	Preparation						
29.	Use Both Unit and Lesson Plans	--	--	--	--	--	A
		-- --	-- --	-- --	-- --	-- --	A A
30.	Aim Instruction to Middle Achievers	--	--	--	--	--	A
		-- --	-- --	-- --	-- --	-- --	A A

Table 2, cont'd.

Number	Process Variable	Word Knowledge	Word Discrimination	Reading	Arithmetic Computation	Arithmetic Reasoning	Mode	
31.	Aim Instruction to Low Achievers	-- / --	-- / --	-- / --	-- / --	-- / --	D / D	D
32.	Require Students to Stay on Lines Only for Printing and Writing Assignments	11 / --	05 / --	21 / --	19 / --	23 / --	D	D
	Best Way to Include Parents is:							
33.	In PTA and Projects	-20 / --	-05 / --	-14 / --	-01 / --	05 / --	A	A
34.	To Cooperate with School by Disciplining Child at Home	-15 / 08 --	-05 / -03 --	-24 / -34 --	-26 / -43 --	-02 / -16 --		A
35.	To Provide Warm Positive Home Environment	32 / --	13 / --	10 / --	20 / --	38 / --	A	A
36.	To Provide Enriching Materials at Home	-14 / 15 --	-09 / 39 --	08 / 39 --	07 / 19 --	03 / 36 --		A
37.	Conscious of Voice Quality Almost Always	46 / --	35 / --	33 / --	27 / --	54 / --	A	A
38.	High Frequency of Severe Disruptions	17 / 01 28	31 / 10 49	19 / 26 21	34 / 41 24	27 / 33 19		
39.	Publicly Praises a Child Frequently as Motivation of Others	21 / 21 24	03 / 04 03	41 / 49 45	36 / 40 34	23 / 39 16		
40.	Found Satisfactory Rapport with students This Year	-19 / -10 --	00 / -08 --	-18 / -21 --	-24 / -27 --	-12 / -10 --		A

Table 2, cont'd.

Number	Process Variable	Word Knowledge	Word Discrimination	Reading	Arithmetic Computation	Arithmetic Reasoning	Mode	
41.	Use Individual and Group Competition as Motivation	32 -- --	44 -- --	20 -- --	18 -- --	30 -- --	A	A
42.	High Number of Different Assignment on Any Given Day	-02 -03 -03	-11 -08 -13	-03 01 -04	11 -02 15	25 22 29		
43.	Frequently Has Students React to Other Students' Answers	13 28 15	32 52 31	14 -17 36	-17 -13 -14	-16 -07 -13		
44.	High # of Children Referred for Testing	07 00 05	-04 -18 -14	02 11 -01	21 18 15	07 -18 -09		
	Regularly Uses the Following as Motivational Techniques:							
45.	Praise	24 -17 --	05 -01 --	33 00 --	36 03 --	43 25 --		A
46.	Smiling faces, Gold Stars	-31 -32 -28	-02 03 01	-09 -15 -15	-03 02 -07	-19 02 -18		
47.	Special Privileges	30 36 23	11 16 05	25 04 33	12 -24 27	20 -30 30		
48.	Notes to Parents	14 26 -02	19 26 08	12 28 11	19 20 14	06 -15 09		
49.	Written Comments On Papers	06 42 -07	16 35 18	06 09 02	-13 08 -30	-22 16 -30		
	Believes the Following Are Necessary for Good Teaching							
50.	Initiate, Direct, Administer	-04 31 -32	14 21 09	02 32 -13	-12 00 -26	-08 32 -30		

Table 2, cont'd.

Number	Process Variable	Word Knowledge	Word Discrimination	Reading	Arithmetic Computation	Arithmetic Reasoning	Mode
51.	Unify the Group	10 35 -06	05 06 02	09 24 05	09 11 04	03 15 -12	
52.	Give Security	-10 -05 -11	-14 -09 -17	08 12 07	-13 -09 -13	-20 -03 -20	
53.	Diagnose Learning Problems	-04 -- -12	-21 -- -37	01 -- 03	05 -- 02	05 -- -08	A
54.	Make Curriculum Materials	02 -25 17	-07 -23 02	22 07 33	10 05 09	07 29 -02	
55.	Evaluate, Record, and Report	04 -- -18	09 -- 01	13 -- 02	-14 -- -29	-12 -- -19	A
56.	Expose Children to Enriching Community Activity	-06 13 -05	06 -10 13	-02 -56 17	-23 -72 09	-08 -66 02	
57.	Participate in School Activities	00 -09 08	06 -11 21	27 13 33	12 30 03	03 42 -09	
58.	Participate in Professional and Civic Life	-06 -43 12	05 -33 27	17 -32 34	04 09 -02	-09 -10 -10	
59.	Develop Curiosity and Creativity	02 07 07	-09 04 -17	15 10 21	03 03 11	11 24 13	
60.	Involve Students in Ugly or Distressful Aspects of Subject	-26 -58 -12	-01 -28 16	-25 -36 -25	-12 -12 -20	00 -18 00	

Table 2, cont'd.

Number	Process Variable	Word Knowledge	Word Discrimination	Reading	Arithmetic Computation	Arithmetic Reasoning	Mode	
61.	Quickly Tell Students Whether Answers are Correct or Incorrect	-09 -02 -16	-13 -05 -20	-22 -20 -22	-26 -44 -10	-11 -33 -10		
62.	Encourage Tackling Hard Problems	00 -21 26	31 28 45	00 -38 17	09 01 26	21 03 48		
63.	Give Exact Instructions on Each Task	-05 15 -14	-19 11 -45	10 14 07	03 14 01	-04 20 -03		
64.	Provide Exact Model for Student's Work	05 -03 06	08 03 08	03 -21 24	-10 -31 06	-07 -54 12		
65.	Engage Students In Drama and Music	-37 -31 -36	-22 -20 -15	-24 -26 -32	-32 -37 -21	-11 -04 -05		
66.	Engage in Peer Tutoring	-14 -41 --	-08 -19 --	17 -28 --	09 -02 --	-08 -44 --		A
67.	Patience	08 -- --	-11 -- --	-06 -- --	-20 -- --	-12 -- --	A	A
68.	Knowledge of Subject Matter	-18 -- --	-40 -- --	-05 -- --	-22 -- --	-21 -- --	A	A
69.	Frequent Praise	-09 -29 15	-24 -29 -15	-11 -71 15	-43 -67 -13	-23 -63 04		
70.	Prepare Students for Metropolitan and Stanford Tests	-57 -65 -53	-23 -44 -09	-33 -45 -32	-39 -33 -42	-51 -28 -58		

Table 2, cont'd.

Number	Process Variable	Word Knowledge	Word Discrimination	Reading	Arithmetic Computation	Arithmetic Reasoning	Mode
71.	Use Slang with Students	-18 -18 -34	16 23 03	-19 -30 -18	10 11 01	-01 14 -02	
72.	Arrange Attractive Bulletin Boards	-28 -42 -25	-10 -38 05	-08 -34 01	-17 -16 -21	-16 -06 -20	
73.	Develop Good Rapport with Children	-30 -31 -28	-26 -38 -15	-17 -34 -13	-25 -33 -16	-21 -51 -09	
74.	Be Involved in Out-of-School Problems	18 -08 34	16 05 22	13 -19 32	16 00 25	10 -47 36	
75.	See that Students Have Supplies at Desk	-11 -08 -10	-03 01 -03	-03 05 -10	14 24 08	11 38 10	
	Gain High Satisfaction From:						
76.	Vacations and Free Time	03 05 04	09 28 -08	12 19 11	02 00 08	-07 -16 04	
77.	Working with Books and Ideas	14 -- 34	11 -- 16	<u>34</u> -- <u>49</u>	<u>35</u> -- <u>48</u>	<u>53</u> -- <u>62</u>	A
78.	Working with Other Teachers	-03 -16 16	07 07 15	26 09 39	04 14 01	07 33 07	
79.	Non-teaching Duties	17 -27 32	-05 -44 08	16 -08 31	14 -21 33	32 -40 <u>47</u>	
80.	Salary and Benefits	10 -- -06	09 -- 06	05 -- 12	-04 -- 12	-05 -- 00	A

Table 2, cont'd.

Number	Process Variable	Word Knowledge	Word Discrimination	Reading	Arithmetic Computation	Arithmetic Reasoning	Mode
	Always Do the Following When Presenting Seatwork:						
81.	Present New Material	12 -16 18	06 -40 24	07 -26 21	-09 -40 02	07 -58 19	
82.	Summarize New Material	-02 19 -18	03 21 -11	00 -19 11	-17 -27 -06	-08 -09 -08	
83.	Practice	-09 -16 -03	07 -11 22	01 -41 20	-31 -34 -27	-27 -58 -15	
84.	Show Students Mistakes and Have Them Correct Them	-06 01 -11	06 -12 11	28 25 29	-13 -25 -10	-04 -24 00	
85.	Give Directions for Follow-up Seatwork	00 -36 24	06 -32 36	07 -45 39	-10 -40 18	15 -57 35	
86.	Allow Independent Seatwork	-03 -33 18	18 -01 33	2i -08 33	07 -02 18	14 -12 34	
87.	High Number of Times Whole Class Lines Up	04 03 -10	-11 -12 -28	-12 09 -25	-17 -14 -32	-13 -53 -09	
	Following Items Are Most Important for Assigning Grades:						
88.	Effort	07 -14 07	00 16 -15	-07 -51 07	06 -04 05	15 -15 11	
89.	Success or Failure in Assigned Work	-14 04 -26	-18 -23 -15	-19 -19 -20	-35 -45 -29	-26 -51 -22	
	Importance for Deciding About Student:						
90.	Standardized Achievement Tests	-07 01 -01	-03 06 03	06 -21 14	06 -12 29	06 28 04	

Table 2, cont'd.

Number	Process Variable	Word Knowledge	Word Discrimination	Reading	Arithmetic Computation	Arithmetic Reasoning	Mode
91.	Teacher-Made Tests	-13 -- -15	06 -- 00	-33 -- -41	-22 -- -48	-12 -- -35	A
92.	Seatwork and Homework	-05 29 -16	03 09 03	-07 29 -17	-20 -07 -26	-14 -30 -02	
93.	Observations About Student	-- -- --	-- -- --	-- -- --	-- -- --	-- -- --	A A A
	Frequent Use of Following Teacher Resources						
94.	Learning Centers without A/V Aids	-11 -13 -11	-32 -28 -36	-18 03 -28	-32 -23 -40	-39 -32 -45	
95.	Student Teachers	-01 -36 19	13 -12 30	20 10 28	11 -02 17	19 -11 34	
	Consider Following Serious Teacher Problems						
96.	Wide range of Student Achievement	17 35 --	08 -10 --	24 65 --	00 -03 --	-02 -01 --	D
97.	Nature & Quality of Instructional Materials	-12 -21 -10	-09 -08 -13	08 10 08	06 -01 11	-07 -27 -01	
98.	Rapid Rate of Curriculum Change	09 03 17	18 27 12	08 08 09	-04 -17 13	00 -03 11	
	Require More Help From:						
99.	Secretarial or Clerical Staff	-24 -05 -43	-15 05 -35	-29 -11 -38	-02 27 -31	-27 15 -46	
	Need More Time to:						
100.	Develop New Programs	-15 -51 08	00 -17 11	05 -01 10	16 20 08	17 11 24	

Table 2, cont'd.

Number	Process Variable	Word Knowledge	Word Discrimination	Reading	Arithmetic Computation	Arithmetic Reasoning	Mode	
101.	Plan Daily Activities	15 -09 29	-14 -22 -13	16 -27 41	06 -22 29	11 -50 33		
102.	Work with Fellow Teachers	08 07 12	-12 -06 -13	00 -16 06	08 07 11	-06 -28 06		
103.	Relax and Think	14 -- 34	-03 -- 09	29 -- 45	26 -- 47	29 -- 39	A	
	Concerning Opinions About Teaching and Its Methods and Goals: Teachers Identify the Following as Important:							
104.	Best to Use Pointer w/ Blackboard	03 -- --	-03 -- --	-08 -- --	-12 -- --	-21 -- --	A	A
105.	Grading is One of Most Important Functions of Teacher	26 -- --	32 -- --	16 -- --	-01 -- --	01 -- --	D	D
106.	School Learning Should be Acquisition of Specified Content	-06 13 -10	10 04 22	02 34 -13	-07 01 -08	-11 02 -03		
107.	Avoid Competition in Front of Whole Class	-12 -22 -04	-28 -50 -12	-06 -31 05	-17 -59 21	-16 -60 00		
108.	Facts Come Before Generalizations	00 -- -04	-04 -- 05	-04 -- -06	04 -- 11	-12 -- 00	A	
109.	Good Teacher Admits Ignorance Openly	32 -- 54	19 -- 19	37 -- 54	62 -- 75	59 -- 59	A	
110.	Do Not Enter Grades While Kids Recite	12 04 14	03 -04 06	09 -08 16	11 -14 28	18 -42 37		

Table 2, cont'd.

Number	Process Variable	Word Knowledge	Word Discrimination	Reading	Arithmetic Computation	Arithmetic Reasoning	Mode	
111.	Math is as Easy to Learn as any Other Subject	06 45 -14	25 53 12	00 -20 08	-09 -07 -05	-11 00 -11		
112.	Use Difficult Words to Help Students Learn Them	04 -- --	-01 -- --	-06 -- --	00 -- --	03 -- --	A	A
113.	Punishment for Poor Work is Repetition	-39 -30 -41	-25 -25 -23	-35 -49 -32	-34 -56 -21	-19 -49 -12		
114.	Authority Can Be an Obstacle to Those Who Want to Learn	-07 -37 08	-12 -28 -04	-24 -41 -19	-11 -36 06	-06 -20 01		
115.	Gear Teaching to City-Wide Tests	-36 -38 -28	-18 -09 -18	-14 -29 -12	-16 -23 -04	-32 -08 -32		
116.	Teacher's Personality is More Important than Methods Used	00 -48 19	-02 -39 14	12 -25 34	29 -04 50	26 -31 40		
117.	Not Necessary to Repeat or Rephrase When Introducing New Concept	-08 -- --	06 -- --	08 -- --	11 -- --	07 -- --	D	D
118.	Learning by Memorizing, or Copying May Deter Problem Solving Ability	-27 -23 --	-28 -20 --	-06 17 --	-10 -04 --	-13 06 --		A
119.	Effective Teaching Requires Teacher to Know Background of Student	24 -30 63	08 -19 28	42 04 65	42 05 17	51 12 77		
120.	Giving Right Answers Is Less Effective Than Guidance in Problem Solving	29 -- --	12 -- --	26 -- --	13 -- --	34 -- --	A	A

Table 2, cont'd.

Number	Process Variable	Word Knowledge	Word Discrimination	Reading	Arithmetic Computation	Arithmetic Reasoning	Mode	
121.	Without Proper Training, Mental Abilities Remain Undeveloped	-26 01 -41	-09 -17 03	-15 -03 -25	-30 -01 **-54**	-44 -11 **-51**		
122.	Encourage Student to Disagree with Teachers' Statements	-19 -- --	04 -- --	-02 -- --	07 -- --	-03 -- --	A	A
123.	Teacher's Main Job is Intellectual Training for Students	**-31** -17 -41	-03 08 -09	-24 -26 -28	**-35** **-45** -24	**-35** -39 -33		
124.	Some Students Ask Too Many Questions	-06 -28 05	-10 -21 -06	-05 -05 -04	-03 -19 08	-05 -21 01		
125.	Small Group Discussions Are Important	-05 -- 00	-12 -- 01	02 -- 08	-03 -- 00	02 -- 09	A	
126.	Problem Solving is One of Main Purpose of Schooling	**-31** -- **-55**	-10 -- -34	-08 -- -35	01 -- -37	-25 -- **-51**	A	A
127.	Good Teacher Avoids Doing Student's Work for Him	-09 -- --	-08 -- --	18 -- --	-20 -- --	-05 -- --	A	A
128.	Natural & Healthy for Kid to Resist Teacher	11 -39 **44**	19 -03 32	22 05 42	**42** 28 **54**	**50** 35 **57**		
129.	Teacher Should Talk to Kid as to Adult	05 -29 17	13 06 17	13 **-44** 40	28 -09 **61**	26 -12 43		
130.	Waste of Time for Kids to Discuss Work Among Themselves	-19 -- --	-29 -- --	06 -- --	09 -- --	09 -- --	D	D

Table 2, cont'd.

Number	Process Variable	Word Knowledge	Word Discrimination	Reading	Arithmetic Computation	Arithmetic Reasoning	Mode	
131.	Good Teacher Lets Kids Do the Work	-03 -05 -01	12 -02 21	-14 -16 -13	-9 17 04	14 04 17		
132.	Only Important Thing to Teach is Principle	-45 -- -55	-17 -- -16	-14 -- -21	-18 -- -25	-39 -- -38	D	
133.	Promotion Should be Based on Academic Achievement	-50 -- --	-23 -- --	-34 -- --	-11 -- --	-14 -- --	D	D
134.	Explanation Should be Short to Retain Interest	-35 -40 --	-19 -45 --	-29 -15 --	-15 04 --	-26 -08 --		A
135.	Peer Tutoring is Good	-17 02 -26	-13 -04 -13	-08 -14 -11	10 41 -16	-17 20 -24		
136.	Tell or Explain Nothing That Students Can Get Alone	-20 -- -04	-13 -- 02	24 -- 23	01 -- -02	-01 -- 00	A	
137.	Assign Material Then Insure Students' Work	-33 -- -49	-23 -- -29	-19 -- -34	-23 -- -22	-25 -- -30	D	
138.	Kids Should Master Material Whether or Not Interesting	-24 -- -09	-06 -- -02	03 -- -01	00 -- -11	-05 -- -02	D	
139.	Strong Emphasis on Subject Matter and Memorization of Facts	10 -08 -49	00 -02 -01	10 16 09	22 06 33	18 -18 31		
140.	Important Function is to Acquire Knowledge Basic to Satisfying Family Life	-39 -07 -50	-15 26 -27	-40 -24 -44	-24 -09 -31	-35 -22 -38		

Table 2, cont'd.

Number	Process Variable	Word Knowledge	Word Discrimination	Reading	Arithmetic Computation	Arithmetic Reasoning	Mode
141.	Advance Organizers Are Important	20 -- 19	-05 -- -15	09 -- 14	01 -- -05	03 -- -10	A
142.	Teacher Should Ask Frequently If Students Understand	-06 19 --	01 20 --	23 61 --	23 48 --	-03 41 --	A
143.	Some Review Is Good Everyday	-- -- --	-- -- --	-- -- --	-- -- --	-- -- --	A A A
144.	Allow Students to Choose Assignments Instead of Making One Assignment for All	12 -- -10	23 -- 19	-07 -- -09	-08 -- -05	03 -- 06	A
145.	A Teacher Should Discourage Students from Moving Around Room Freely	03 64 -17	01 19 -05	-02 02 -03	17 -15 35	11 -30 21	
146.	Directive Teaching Produces More Passive Student	-25 -39 --	-16 -37 --	20 09 --	-13 05 --	-41 -56 --	A
147.	Ignore Mistakes to Avoid Interruption	-25 -- -12	-18 -- -04	03 -- 19	03 -- 18	-15 -- 06	D
148.	Encourage Kids to Believe They Can Succeed	-25 -- -37	-45 -- -46	-38 -- -45	-35 -- -22	-38 -- -35	A
149.	Memory Assignments Should be Frequent	05 09 00	18 29 09	07 15 05	19 09 25	07 27 -05	
150.	Often Ignore Students Who Continually Raise Their Hands	27 -05 58	-08 -32 16	49 33 60	36 04 73	42 04 68	

Table 2, cont'd.

Number	Process Variable	Word Knowledge	Word Discrimination	Reading	Arithmetic Computation	Arithmetic Reasoning	Mode		
151.	Show Students Purpose of Work	-10 -- -01	-02 -- 26	21 -- 27	-15 -- 07	-09 -- 15	A		
152.	"Practice Makes Perfect" Sums up Learning	-24 01 -36	-10 -02 -12	-25 -43 -20	-23 -34 -11	-27 -42 -23			
153.	Praise in Some Way All Kids' Work	13 -- 07	25 -- 32	11 -- 19	-06 -- -13	-17 -- -21	A		
154.	Require Same Amount of Work From All Students	-- -- --	-- -- --	-- -- --	-- -- --	-- -- --	D	D	D
155.	Don't Allow Deviation From Instruction	09 -- --	18 -- --	27 -- --	25 -- --	-10 -- --	D		D
156.	Good Text Is Storehouse of Facts	-04 -- -21	14 -- 04	04 -- 07	-05 -- -10	-05 -- -15	A		
157.	Teach Students How to Learn Effectively	10 -- --	10 -- --	10 -- --	-08 -- --	-25 -- --	A		A
158.	Good Teacher Needs to Spend Little Time on Clarification	-- -- --	-- -- --	-- -- --	-- -- --	-- -- --	D	D	D
159.	Students Should Stand While Reciting	-10 -- --	-04 -- --	-27 -- --	-19 -- --	-16 -- --	D		D
160.	Most Visual Aids Are Not as Good as Printed Word	17 -- 20	06 -- -01	-08 -- -11	11 -- 19	19 -- 23	D		

Table 2, cont'd.

Number	Process Variable	Word Knowledge	Word Discrimination	Reading	Arithmetic Computation	Arithmetic Reasoning	Mode
161.	Effective Learning Comes From Logically Organized Text	-15 -13 --	-01 12 --	-18 -50 --	-20 -30 --	-13 -36 --	D
162.	Teachers Who Rely Heavily on Texts Are Not as Effective	-02 04 -15	-03 -08 -06	02 18 -05	-10 -21 -07	-06 -12 -11	
163.	Teachers Should Be Wrong Sometimes	19 -05 41	05 -04 14	32 42 31	25 37 16	22 45 13	
164.	Teacher's Primary Job Is Explaining Subject Matter	22 54 04	31 75 -10	03 10 -01	18 20 17	07 32 -12	
165.	Remind Kids to Ask When They Don't Understand	-10 -- -36	-11 -- -20	-03 -- -26	-26 -- -51	-57 -- -58	A
166.	No Specific Rules for Effective Teaching	11 -02 11	00 -57 34	05 28 -03	22 -07 42	25 -32 34	
167.	Routine Can Adversely Affect Learning	-25 -- -53	-08 -- -16	-31 -- -50	-02 -- -22	01 -- -12	D
168.	Teaching Should be Evaluated Independently of Learning Results	-15 -55 --	05 -42 --	-10 -39 --	-07 -24 --	17 01 --	D
169.	Without Practical Usefulness, Knowledge Is Without Value	-34 -58 -16	-20 -40 -03	01 03 -01	-18 -02 -27	-13 -08 -07	
170.	Teaching Techniques Must Be Adapted to Individual Students	-05 12 -22	01 02 -03	-13 -05 -17	-13 27 -55	-22 01 -41	

Table 2, cont'd.

Number	Process Variable	Word Knowledge	Word Discrimination	Reading	Arithmetic Computation	Arithmetic Reasoning	Mode	
171.	Impact of Teacher is Far More Important Than Rest of School Environment	-35 -- --	-35 -- --	-04 -- --	-12 -- --	-23 -- --	A	A
172.	In Most Classes, Students Should be Ability Grouped	-44 -35 --	-38 -38 --	-17 01 --	-28 -27 --	-47 -47 --		A
173.	Teachers Should Use Some of the Students' Lingo	-06 -09 -10	-11 11 -33	-05 -41 14	06 -07 14	-01 -22 03		
174.	Good Teaching and General Affection Are Separate	08 -- 20	22 -- 29	-16 -- -15	-15 -- -07	01 -- 13	D	
175.	Teacher Should Reward Effort and Penalize Lack of It Regardless of Mastery Achieved	19 06 28	21 04 36	09 32 -02	06 35 -21	09 29 -04		
176.	Teacher Should Avoid Use of Slang	-13 05 --	-13 -33 --	08 12 --	-21 -12 --	-18 -37 --		A
177.	Good Teacher Never Uses Compulsion	-35 -51 -22	-34 -48 -22	-08 -02 -15	-18 -19 -16	-20 -60 -12		
178.	In Average Classroom of 20+, it is Unnecessary to Know Individual Students Well	11 -- 05	00 -- -04	07 -- 15	38 -- 53	31 -- 46	D	
179.	Objective Exams are Not Good; No Original Ideas	25 -14 52	10 -33 59	22 -57 56	03 -36 35	26 -49 48		
180.	Student Should Repeat Grammer Construction Until Correct	-06 -- -15	15 -- 26	-11 -- -02	-11 -- -05	-03 -- 03	D	

Table 2, cont'd.

Number	Process Variable	Word Knowledge	Word Discrimination	Reading	Arithmetic Computation	Arithmetic Reasoning	Mode	
181.	Relevancy Will Not Help Disinterested Student	-19 -- --	-03 -- --	-20 -- --	-29 -- --	-20 -- --	D	D
182.	Important to Make Definite Rules About Good Teaching	12 -04 17	-04 -18 00	17 20 20	37 20 48	50 51 48		
183.	Teacher Should be Expected to Spend Some Free Time with Students if It Will Help Them Learn	10 -- 07	28 -- 33	-03 -- 08	-10 -- -07	-04 -- 11	A	
184.	Unrealistic That Student Get Along Without Teachers	-26 13 -52	05 17 -03	-33 02 -51	-23 -21 -25	-01 17 -04		
185.	Good Teaching Implies Much Teacher Talk	31 -- --	21 -- --	14 -- --	28 -- --	21 -- --	D	D
186.	Teaching Should Proceed on Principle That Intellectual Learning Is Pleasurable	07 -- --	12 -- --	04 -- --	-14 -- --	-22 -- --	A	A
187.	Usually Teacher's Fault When Student Does Not Understand Assignment	23 17 17	13 12 -04	-09 -22 03	05 -11 09	01 -50 10		
188.	One Should Not Do a Lot of Oral Evaluation of a Student's Work	08 -09 --	-14 -18 --	03 -52 --	-18 -52 --	04 -50 --		D
189.	Insight Into Nature of Our Number System Will Not Reduce Amount of Drill Necessary	-25 -51 -14	-09 -36 05	-18 04 -27	-03 08 -13	07 25 02		
190.	All Except Exceptional Student Should Acquire Same Knowledge and Skills at Same Time	-15 -- --	-22 -- --	11 -- --	05 -- --	-04 -- --	D	D

Table 2, cont'd.

Number	Process Variable	Word Knowledge	Word Discrimination	Reading	Arithmetic Computation	Arithmetic Reasoning	Mode	
191.	Praising Others Does Little to Stimulate Achievement	29 -- 25	06 -- 13	19 -- 09	-04 -- -08	15 -- 03	D	
192.	Teaching is an Art, Not a Science	33 -- 50	10 -- 20	42 -- 57	27 -- 27	49 -- 46	A	
193.	Teacher Should Check to see if Explanation Has Left Some Students Puzzled	-21 -- --	-08 -- --	13 -- --	-05 -- --	-03 -- --	A	A
194.	Agree that if Instruction is Clear Few Discipline Problems Occur	-14 01 -28	-12 05 -27	-19 -13 -26	-27 -16 -40	-37 -54 -31		
195.	Disagree That Nonachievers Should be Failed	-31 -- -48	-21 -- -34	-19 -- -50	-03 -- -20	-17 -- -28	A	
196.	Lecture Method is Seldom Desirable	03 26 --	-05 -01 --	09 -38 --	-15 -35 --	-24 -66 --		A
197.	Competition in "Bees" Are Desirable Learning Activity	25 06 28	27 -06 40	15 -28 32	20 -46 55	30 -69 48		
198.	Maximum Learning Occurs When Both Teacher and Student Have a Definite Idea of What is to Be Done	15 -- --	-11 -- --	10 -- --	00 -- --	10 -- --	A	A
199.	Better to Err in Underexplaining than Overexplaining	-15 -35 --	09 -14 --	-07 -25 --	-07 00 --	-05 -14 --		D
	Extremely Concerned With:							
200.	The Nature and Quality of Instructional Materials	-35 -31 -41	-21 02 -40	-36 -57 -30	-24 -10 -36	-21 25 -36		

Table 2, cont'd.

Number	Process Variable	Word Knowledge	Word Discrimination	Reading	Arithmetic Computation	Arithmetic Reasoning	Mode
201.	Frustration with Routine and Inflexibility of Situation	16 -28 64	14 -24 54	40 30 55	37 27 56	48 07 73	
202.	Becoming Too Personally Involved with Students	00 08 -06	09 13 06	-04 22 -18	08 21 -08	15 17 12	
203.	The Wide Range of Student Achievement	-15 09 -32	-07 -35 01	-29 -04 -37	-16 -06 -28	-24 -37 -31	
204.	Diagnosing Student Learning Problems	-28 00 -40	-31 03 -50	-37 -20 -51	-33 -25 -35	-31 05 -41	
205.	Too Many Noninstructional Duties	05 06 00	14 09 14	12 01 22	-15 07 -41	-21 10 -34	
206.	Insuring That Students Grasp Subject Matter Fundamentals	00 33 -27	07 34 -16	-18 05 -28	-21 -12 -34	-14 15 -35	
207.	Working With Too Many Students Each Day	-23 -21 -24	-18 -11 -22	-17 -10 -22	-28 -04 -47	-30 01 -40	
208.	The Values and Attitudes of Current Generation	02 18 00	03 -07 17	29 14 35	12 10 20	15 17 22	
209.	Understanding the Philosophy of the School	-07 01 -08	-14 -30 00	06 -02 09	-15 -36 06	05 -34 16	
210.	Students Who Disrupt Class	05 29 -14	-04 -12 01	-05 08 -12	06 03 07	11 16 -01	

Table 2, cont'd.

Number	Process Variable	Word Knowledge	Word Discrimination	Reading	Arithmetic Computation	Arithmetic Reasoning	Mode
211.	Student Use of Drugs	-31 -07 -52	-26 -50 -09	-24 -40 -17	-43 -74 -04	-32 -79 -15	
212.	Whether Each Student Is Getting What He Needs	03 46 -17	09 27 -01	-09 05 -13	-13 -12 -14	04 -06 01	
213.	Emotional and Social Needs of Student	-21 20 -41	-17 -12 -21	-31 -07 -39	-32 -43 -28	-20 -65 -22	
214.	The Wide Diversity of Student Ethnic and Socioeconomic Background	-17 -40 -01	-06 -42 20	-01 -14 04	00 -14 15	05 -35 13	

[1] For each set of three coefficients, the top (centered) coefficient is for the entire sample, the coefficient at the lower left is for teachers of low SES students, and the coefficient at the lower right is for teachers of high SES students.

Probability values are indicated by underlining. $p > .10$ where no line appears; $.10 \geq p > .05$ where one line appears; and $p < .05$ where two lines appear.

[2] Where dashes appear instead of correlation coefficients, variance on the item was too low to permit analyses for one or both subgroups or for the total group. In these cases subjects tended to be nearly unanimous in agreeing or disagreeing with the item. A (agree) or D (disagree) are typed in the mode column to indicate the reason for low variance.

Table 3. Correlations between Teacher Questionnaire Combined Scores and Student Residual Gain Scores (averaged across four years) on the Metropolitan Achievement Tests (decimal points omitted).[1]

		WK	WD	R	AC	AR
1.	Motivate by using public rewards	17 -12 29	47 25 52	32 27 35	44 40 45	39 43 41
2.	Believe in good organization of materials & procedures	-27 -22 -33	-12 -20 -07	-07 -12 -05	-27 -21 -34	-36 -23 -40
3.	Focus on careful instructional organization and systematic teaching methods	-12 -04 -13	04 08 00	-04 -03 -04	-06 06 -15	-20 -11 -17
4.	Emphasis on good classroom control	08 37 -17	01 05 -07	-16 02 -30	-18 -23 -14	-07 -42 03
5.	Belief in importance of individualizing student learning	12 16 07	-09 -25 [illegible]	28 16 39	-04 -35 24	05 -40 26
6.	Belief in importance of organizing and motivating	00 07 -02	-24 -38 -14	02 -11 06	-31 -47 -20	-11 -05 07
7.	Belief in importance of affective aspects of teaching	06 01 12	-13 -15 -10	10 -23 24	-16 -25 -06	-06 -24 04
8.	Gains satisfaction from working with people	-11 -30 01	-03 -02 -08	-01 -21 13	-05 02 -18	-09 06 -18
9.	Gains satisfaction from intellectual stimulation and public recognition	-27 -31 -20	02 -02 06	11 -01 17	07 -13 -03	-10 -11 -04
10.	Gain satisfaction from dedication to difficult teaching problems	17 -23 31	15 -25 33	35 22 47	26 20 25	47 16 50
11.	Academic grades do much to encourage students	16 04 24	31 38 22	04 17 -03	28 34 15	33 44 30

Table 3, cont'd.

		WR	WD	B	AC	AR
12.	Gain satisfaction from constructing and marking homework and tests	05 12 -04	14 -24 30	16 38 11	-20 -16 -20	14 -37 -15
13.	Exams are good devices to help teacher evaluate student learning	-36 -56 -22	-16 -44 00	-13 -27 -08	-03 -32 15	-05 -38 00
14.	IQ is important in teaching & evaluating students	17 27 11	-01 11 -08	25 75 07	46 68 26	13 37 07
15.	Tests should be used to improve teaching, not to evaluate students	20 04 39	07 -13 28	12 -26 30	01 -29 34	30 -10 58
16.	The school is not as responsive to students' [illegible]s as it should be	-01 -25 -01	01 -14 -01	-11 -05 -16	02 -23 17	00 -53 20
17.	Curriculum and academic materials are inappropriate but unavoidable	00 -37 19	-02 -22 03	02 00 05	14 -03 25	15 -39 36
18.	Teachers need more help from others so they can have more time with students	16 07 08	07 09 -12	-08 -24 04	02 -11 02	-07 -46 -08
19.	Concerned w/doing job well and being liked by students for it	05 07 04	07 08 06	02 -31 18	-07 -29 11	16 -11 23
20.	Concerned w/getting along w/ children & school personnel	-14 11 -28	-10 -06 -08	-19 -25 -21	-31 -31 -26	-14 -08 -17
21.	Concern w/providing individualized and reality-based instruction	-14 -07 -12	02 11 03	-17 -32 -15	-21 -16 -20	08 21 12
22.	Concern w/guiding students & providing stable emotional & intellectual climate	02 19 -07	17 09 20	-07 -21 -02	-21 -39 -10	02 -35 00
23.	Concerned w/physical limits in terms of time & materials	-24 -46 -15	-05 -30 15	-01 -02 00	19 23 12	15 22 03
24.	Concerned about being favorably evaluated for doing a good job	-40 -43 -30	-26 -32 -13	-20 -25 -27	-22 -11 -22	-21 00 -21

Table 3, cont'd.

		WK	WD	R	AC	AR
25.	Feels it isnecessary to teach particular facts	01 21 -14	22 23 19	-09 -26 -02	01 -21 14	12 -03 07
26.	Class is centered around student input	-44 -40 -49	-27 -30 -19	-24 -05 -51	-36 -21 -51	-35 -08 -51
27.	Lessons are flexible & open to academic student input	-14 -09 -10	-13 -06 -11	-11 -58 10	-31 -45 -11	-32 -42 -20
28.	It's important to summarize & review lessons to make sure everyone understands	-07 23 -27	07 30 -08	00 00 -01	-20 -08 -43	-27 22 -47
29.	Teach facts rather than global concepts	11 00 13	34 03 50	-01 -43 10	-04 -51 24	13 -36 34
30.	Prefers lecture or explanation to multi-media presentation	08 -56 34	-05 -55 16	18 -19 40	21 -21 45	20 -20 33
31.	Students need guidance but not rigid structure	-06 -21 01	-01 -17 08	-14 -15 -15	-05 21 -25	02 03 -02
32.	Involve parents directly in the classroom	-13 34 -36	-03 44 -28	-12 13 -20	15 31 05	08 28 00
33.	Prefer to bring resources into class rather than take children out of class	01 -10 36	03 -01 25	03 -13 33	-17 -30 14	-03 -03 05
34.	Use of A-V aids	01 -05 06	03 -18 24	-09 -20 -05	-10 -06 -18	-19 -27 -15
35.	Use of visitors from community	07 40 04	-11 29 -34	16 23 15	-16 -10 -08	-12 -24 14
36.	Competition is desirable	-03 -02 -15	17 08 15	-11 14 -22	08 30 -21	07 19 -09
37.	Elaborate planning and preparation is not necessary	17 03 29	24 -13 56	24 37 20	25 09 42	22 -12 35

Table 3, cont'd.

	WK	WD	R	AC	AR
38. Plan daily for each subject	20 59 -19	38 51 25	-08 -02 -13	-19 -15 -30	-04 -16 -07
39. Teaching to individuals rather than to subgroups	-10 10 -18	05 17 02	-02 04 -06	-31 -23 -28	-33 -33 -25
40. Emphasis on class as a whole rather than individuals	13 12 06	14 00 17	-11 25 -26	10 05 06	14 -21 17
41. Pressure to achieve and emphasis on academic mastery is beneficial.	-21 23 -47	-12 -06 -16	-22 -14 -27	-15 -14 -16	-27 -29 -27
42. Lessons should not be flexible	-22 -13 -20	-05 -33 27	-14 01 -27	-22 -09 -27	-02 37 -10
43. Learning is not difficult but it requires effort	-18 28 -53	-13 40 -59	-34 -27 -52	-23 12 -59	-34 -02 -49
44. Humor and interesting subject matter are important ingredients of teaching	-29 -14 -35	-38 -31 -41	-00 -21 -06	-19 -01 -30	-27 -21 -28
45. Believe students will work on their own and establish their individual level	-45 -60 -35	-15 -18 -09	-23 -30 -21	-22 00 -32	-11 31 -27
46. Personal and social growth is more important than academic growth	-18 04 -34	-11 -11 -17	01 02 02	02 10 -07	-03 -03 -00
47. Emphasis on discipline and academic work	17 21 04	21 21 13	03 32 -14	20 39 04	10 33 00
48. Teachers should make lessons interesting	00 39 -17	03 33 -10	-12 -23 -13	-10 03 -19	-14 -20 -01
49 Learning is more important than attitudes & happiness of students	-20 -27 -24	-12 -31 03	-11 -22 -00	-16 -25 -06	-10 -37 -01
50. Learning should be interesting not laborious	06 03 08	25 12 34	-07 -27 04	-07 19 -23	-09 17 -16

Table 3, cont'd.

		WK	WD	R	AC	AR
51.	Measure success by class work habits and success in teaching slower children	-09 -07 -18	10 01 13	-26 -19 -38	-08 05 -27	-08 -11 -11
52.	Measure success through students' understanding	-17 24 -47	-19 24 -52	-36 -20 -46	-09 05 -23	-30 -03 -53
53.	Drill & excessive problem-solving is beneficial in teaching math well	22 55 06	36 52 29	-05 -11 -03	17 16 21	17 01 26
54.	Teaching strategies should be teacher-centered and well structured	03 37 -11	11 21 09	-01 -14 02	05 -05 13	00 -03 -01
55.	Believe subject matter is more important than social-emotional factors	-53 -23 -63	-22 -36 -14	-27 22 -41	-41 -14 -54	-52 -09 -56
56.	Believe teacher's job includes helping child to teach himself along with some parent duties	-19 -38 -02	-04 -16 10	-15 -31 -09	-10 06 -23	-06 12 -05
57.	Recognizes importance of integration of subject matter for teaching large class	-10 -42 11	-01 -25 16	-15 -28 03	-05 -39 30	18 -42 41
58.	Preference for and orientation to high achievers	22 16 30	25 05 42	24 03 38	08 -44 57	24 -32 52
59.	Actual instruction time is low because of control problems and too few personnel	16 13 09	04 05 -09	-03 -25 14	-01 -10 -01	-10 -34 -15
60.	Feel problems stem from children themselves and their environment	10 -17 21	-01 -15 -01	07 -05 20	09 -35 49	20 -51 43
61.	Interest in out-of-classroom aspects of teaching	-13 -38 09	-08 -11 -06	10 -07 25	23 33 11	-01 02 03
62.	Use of student conduct and personal qualities in assigning academic grades	09 -36 37	28 -01 49	19 06 25	14 -02 27	25 05 39

[1] For each set of three coefficients, the top (centered) coefficient is for the entire sample, the coefficient at the lower left is for teachers of low SES students, and the coefficient at the lower right is for teachers of high SES students.

Probability values are indicated by underlining. $p > .10$ where no line appears; $.10 > p > .05$ where one line appears; and $p < .05$ where two lines appear.

Table 4. Composition of Combined Scores from Teacher Interview Showing Factor Loadings and Directions of Loadings

1. Teacher places some restrictions on involvement with parents or on parental involvement in school
   - -80 No reservations about contacting parents about a normally stable child who shows up upset (as opposed to doing so only if teacher thought it necessary)
   - -68 Parents as well as school personnel should have a say in determining school curriculum
   - +72 Parental involvement in determining school curriculum should be restricted

2. Parents play an important role in teacher-child rapport
   - +58 Parent-home problems are a factor in barriers to rapport
   - +53 Teacher can establish better rapport with child by working with parents

3. Parental cooperation-uncooperation is defined by interest in child and not by behavior to teacher
   - +66 An ideally cooperative parent is interested in child and willing to help him/her
   - -29 An ideally cooperative parent is one who supports, helps, and empathizes with the teacher
   - -50 An uncooperative parent is one who is critical, defensive, blames teacher and is non-supportive of her

4. The school and classroom is open to parents' visits without restrictions at anytime
   - +59 Parents are always welcome, anytime, without restrictions
   - -66 Parents should give advance notice of their visits or be limited to periodic visits (some limitations)

5. Teacher names disadvantages of busing in terms of children's emotional harm.
   - +62 Busing causes loss of neighborhood concept and school ID, after school activities
   - +54 Busing leads to racial or emotional adjustment problems

6. Black students' needs: language-instructional but no social-emotional
   - +48 Black children have language-instructional needs
   - -88 Black children have social-emotional needs

7. Teacher does independent reading about education (books)
   - +52 Teacher has read some books on education in last year
   - +53 Teacher has read instructional, methods books in last year
   - +51 Teacher read books on human relations, self-concept in last year

8. Teacher subscribes to magazines
   - +59 Teacher subscribes to some magazines
   - +70 Teacher subscribes to 3 or more magazines

Table 4, cont'd.

9. Teacher relies on school personnel for advice about teaching
   - +57 Uses advisors for "curriculum and teaching advice"
   - +49 Uses supervisors, curriculum specialist, and other resources in school

10. Teacher relies on psychological services
   - +74 Uses advisors for "problems referrals and testing"
   - +43 Uses psychologists and testers
   - +58 Uses counselors

11. Teacher implies she takes an active role in individualizing, reteaching
   - +49 To provide for individual differences, teacher gives individual assignments with different success levels (not just extra work, special mention of different expectations)
   - +66 If child is not ready for a subject, teacher mentions reteaching, and other special efforts and not just giving easier work
   - +49 If child can't do math seatwork, gives remedial work and special assignment, mentions some specific extra effort

12. Response to motivation problems: teacher makes a direct effort and does not refer to outside help
   - +76 To motivate under-achiever, uses "tricks", finds particular interests, emphasizes strengths
   - -43 To motivate under-achiever, teacher consults others

13. Teacher exhibits favorable attitude toward conduct grades
   - +59 For report card grades in conduct areas
   - -64 Against report card grades in conduct areas
   - +64 Advantages of conduct grades: feedback to parents, child, teachers
   - -51 Disadvantages of conduct grades: stigmatize child

14. Teacher uses own diagnosis to plan teaching
   - +47 To provide for individual differences, diagnoses individual aptitudes and interests
   - +77 Uses 50% or more teacher-made tests (not ready-made tests)
   - -79 Uses less than 50% teacher-made tests
   - +48 When child doesn't understand something, determine if problem stems from more general source (hearing, etc.)

15. Teacher's use of non-objective records also
   - +67 Keeps non-academic records
   - +57 Keeps subjective comments, observations

16. Teacher uses her own judgement based on performance (non-testing)
   - +54 Determines readiness at beginning of year by observations and judgement
   - +47 Forms and changes reading groups on basis of teacher's judgement of performance

17. Use of only subjective criterion to judge success
   - +74 Measures teaching success by affective means only
   - -44 Measures teaching success by subjective and non-subjective means

Table 4, cont'd.

18. Teacher bases response to a mistake on child's explanation
+49 When child makes mistake while checking, teacher questions child
+51 When a child doesn't understand something, teacher analyzes student's response to material in order to diagnose problem

19. Teacher indicates that keeping up the pace of the class is more important than waiting on child, sustaining, correcting
-57 Waits on response longer than 30 seconds
+58 If child is confused and doesn't understand the question, teacher asks another child
+49 Ignore, do nothing for slang and dialect
-47 Discourage, correct, or model correct for slang or dialect

20. Teacher describes a specific approach to no response as opposed to non-specific waiting
+62 To no response, rephrase, new question, repeat
-59 Urge response, wait, but no mention of specific strategy
-50 Waits "not too long" on response
+65 Waits less than 30 seconds

21. Response to not paying attention: sustaining with child
-58 If not paying attention, teacher or someone repeats with same child
-43 When child is stuck on work in reading group, emphasize physical structure, clues

22. Teacher sustains for incorrect responses
+40 Sustains for incorrect response
+70 When child is stuck on word in reading group, emphasize physical structure, clues

23. Teacher mentions using special techniques and "tricks" to interest students when teaching L.A.
+69 Uses bookclub books, children's books as supplementary readers
+52 Uses topical, special interest books as supplementary readers
-68 Uses less than 3 types of extra readers
+57 Uses general introduction to stories in reading group to create interest
+42 Teacher spelling by word use

24. Limits use of kids at board in some way
+40 Always does the first board example or all examples herself
-54 Uses kids for board work 50% or more of the time

25. Use of game-type activities to teach L.A.
+55 Uses pictures, AV aids
+55 Uses non-book exercises to teach spelling: games, look-say, drill

26. Cause for reading failure lies in child and not in the school
+58 Poor background results in lack of readiness skills which causes reading problems
-49 Teaching and program limitations lead to reading failure

Table 4, cont'd.

27. Use of non-book materials as supplements
- -40 Keeps available supplementary readers and old textbooks
- +50 To help slow readers, uses special material-audio visual aids, flash cards

28. Teacher arranges student activities which do not require direct teacher time
- +39 Use of learning centers
- +42 Gives extra class responsibilities to high achievers (peer tutoring, clerical)

29. Use of TV shows
- +60 Uses music-art shows
- +53 Uses science health shows
- +35 Uses general TV shows (e.g. Sesame Street)

30. Use of some patterned-turns in reading group
- -55 Uses only random reading order
- +63 Uses both random and ordered reading

31. High use of spelling bees
- +32 Four or more spelling bees a year
- -33 1 to 3 occasional spelling bees

32. Teacher bases judgement of innovations on their social-emotional effects
- +74 Advantages of social-emotional activities: self knowledge and pride
- +80 Advantage of magic circle: self-expression and understanding
- +68 Advantage of magic circle: understanding of others
- +65 Advantage of learning centers is variety, interest, enjoyment of children
- +48 Advantage of team-teaching is increased variety in T-child and child-child relationships

33. Problems with rapport stem from the child
- +40 Something in the child causes barrier to rapport
- +74 Can establish better rapport by specific effort with kid

34. Teacher mentions concern with social-emotional needs of Mexican-Americans in classroom
- +40 Mexican-Americans have special needs for social-emotional-cultural adjustment
- +39 The best way to teach Mexican-American children is to accept, understand their culture, have an open attitude

35. Positive attitudes toward TV
- +53 Advantages of TV: instructional
- +48 Advantages of TV: fun, interesting

36. Judges disadvantages of innovations in terms of how kids are affected and not how teacher is affected.
- -59 Disadvantage of team teaching is that planning takes more time and work
- +68 Disadvantage of team teaching is that kids suffer from lack of 1:1 contact
- +46 Disadvantage of IGE is that it is not good for the kids
- +49 Disadvantage of Plan A is that the kids need a special environment

Table 4, cont'd.

37. Reaction to AISD curricular changes was teacher change
- +30 AISD curricular changes have affected teaching
- +50 AISD curricular changes have led to changes in instructional approach in some way

38. Ways in which teacher can prepare lessons
- +58 Prepare by subject
- +66 Prepare by unit
- +57 Prepare by combination of content and time

39. Teacher keeps test scores private and does not publicize
- +41 Keeps test scores private to all
- -46 Publicizes some scores and keep others private

40. Understanding is more important than confidence in teaching
- +44 Understanding is more necessary
- -42 Confidence is more necessary

41. Humanistic, understanding approach to discipline, "try to see child's side"
- +50 If child is cheating when checking, discuss it privately, use non-punitive, rational approach
- +49 Advice on management to new teachers: be human, involve kids, be fair, warm, kind
- +48 Children act out as outlet for internal tensions--justification in terms of something outside of child's control
- +64 Privately talk to sulking or defiant child
- -52 Redo sloppy assignment (absolute, no qualifications)
- +48 May or may not redo sloppy assignment, depending on child and situation

42. Punishment: use of non-punitive techniques instead of isolation or loss of privilege
- -43 Use of isolation
- +46 As punishment, talk to child, send to counselor
- -65 Most effective punishment is removing privilege or isolation
- +54 Most effective punishment is talking to child
- +50 For a disruptive showoff, talk to alone
- +43 For a disruptive, emotionally disturbed child, give an alternative behavior to do

43. Teacher involves kids in determining classroom rules
- +43 Teach children to follow rules by involving them in planning
- -43 Teacher makes rules, tells kids, but does not discuss at all

44. Most common discipline problem is noise and not children's disrespect for each other (Teacher's priorities for classroom order: authoritarian vs. more humanistic interests)
- +59 Most common discipline problem is noise
- -42 Most common discipline problem is disrespect for other children

Table 5. Correlations between Teacher Interview Uncombined Scores and Student Residual Gain Scores (averaged across four years) on the Metropolitan Achievement Tests (decimal points omitted).[1]

Number	Process Variable	Word Knowledge	Word Discrimination	Reading	Arithmetic Computation	Arithmetic Reasoning	Mode[2]
Preparation of Lessons:							
1.	Daily	12 16 05	04 -20 16	-10 -27 -02	-17 -43 -01	-14 **-73** 05	
2.	Weekly	-02 -19 09	-20 -07 -30	13 -25 32	18 -02 36	06 14 02	
3.	At School	13 **54** --	24 **57** --	02 18 --	03 33 --	06 51 --	A
4.	At Home	18 31 19	17 19 24	-03 04 -09	-04 -06 05	15 -28 **51**	
Begin Lesson With:							
5.	Specific Attention Getter	-29 -- -39	09 -- 08	**-41** -- **-46**	-03 -- -21	02 -- -13	A
6.	Advance Organizers	01 -27 20	-07 -06 -09	08 -08 17	07 04 11	13 29 08	
7.	Asks Questions Involving Kids' Experience	-20 -32 -05	-14 **-48** 20	-10 -05 -16	-22 -21 -18	-21 -34 -13	
8.	Have Lessons Prepared, Materials Ready	05 11 --	**32** **66** --	00 04 --	24 36 --	18 **73** --	D
9.	Method of Beginning a Lesson Depends on Lesson, Subject, Child	30 03 **53**	08 03 14	30 00 **46**	**36** 20 **52**	**37** 34 **48**	
Class Discussion:							
10.	High Use of Class Discussion	07 -18 --	-11 -35 --	-09 -38 --	-06 -37 --	23 -25 --	D

Table 5, cont'd.

Number	Process Variable	Word Knowledge	Word Discrimination	Reading	Arithmetic Computation	Arithmetic Reasoning	Mode
11.	Discussion Used to Get Child Input & Participation, Group Planning	-10 -33 -14	-17 00 -46	-05 -08 -01	10 -02 07	20 28 02	
12.	Discussion Used as Teacher Tool, to Share Information Check Knowledge	-06 00 -06	-23 -08 -43	-19 -30 -16	00 -01 04	-07 07 01	
13.	Discussion Used to Introduce a New Topic	-04 02 --	-21 -11 --	-10 06 --	01 00 --	07 08 --	D
14.	Discussion Useful With Specific Topic	18 -01 37	13 14 17	10 14 08	27 38 23	34 45 41	
15.	No Homework or Limited Homework Assigned	-16 -33 -03	-04 -07 01	-21 -53 -08	-13 -14 -11	01 16 -05	
	Purposes of Seatwork:						
16.	Diagnostic	07 26 -08	-19 10 -44	07 -09 17	14 -34 02	-12 -24 -15	
17.	Management-Related	-21 -43 -12	-06 -28 06	-28 -39 -25	-24 -20 -33	-07 -21 -03	
	Purposes of Homework:						
18.	Extension of School Time	-20 -36 --	-13 07 --	-34 -52 --	-18 -30 --	-17 -28 --	D
19.	Instructional	27 -14 53	11 -35 42	28 21 36	06 -20 26	03 -62 25	
	Make Homework Assignments by:						
20.	"Explaining"	09 31 33	-07 -21 -01	-10 -56 13	07 -07 17	25 -08 31	

Table 5, cont'd.

Number	Process Variable	Word Knowledge	Word Discrimination	Reading	Arithmetic Computation	Arithmetic Reasoning	Mode
21.	Demonstrating, Giving Examples	-05 -10 00	01 19 -11	-07 -42 09	06 -15 29	-14 -33 00	
22.	Discussing, Relating to Material & Purpose, Probe for Understanding	31 -06 55	23 06 34	34 29 43	22 01 39	29 -08 45	
	Audio-Visual Aids:						
23.	Uses Overhead Projector	-05 -32 00	-02 -02 -16	09 02 14	15 31 -11	12 42 -15	
	Advantages of A-V aids:						
24.	Instructional, Supplement Teacher	05 -19 19	21 23 19	08 -20 24	27 24 28	25 28 30	
25.	Motivating, Interesting, Kids Like Them	-12 04 -24	00 14 -12	-17 -14 -21	-21 04 -43	-11 11 -22	
26.	Enrichment, Variety of Experience	-05 -29 16	-06 -08 -01	-16 -46 -04	09 19 04	00 15 12	
27.	Management-Related	-06 14 --	-11 05 --	-26 00 --	-21 -29 --	-14 -12 --	D
	TV:						
28.	Use of TV	-06 -- -21	21 -- 23	-04 -- -12	05 -- 08	14 -- 05	A
	Which TV Programs:						
29.	Language Arts or Spanish	-32 -- -22	-24 -- -32	-01 -- 02	05 -- 03	-06 -- -07	D
	Advantages of TV:						
30.	Variety, Enrichment	08 -19 29	08 22 00	06 -02 10	20 -26 17	25 35 24	

Table 5, cont'd.

Number	Process Variable	Word Knowledge	Word Discrimination	Reading	Arithmetic Computation	Arithmetic Reasoning	Mode
	Disadvantages of TV:						
31.	Kids Are too Passive, See Too Much	13 54 -10	13 49 -07	03 10 00	06 -02 -08	-16 -01 -22	
32.	Must Fit It into Curriculum and Schedule	-02 -29 18	-05 08 -13	00 -12 05	-08 -10 -05	-01 11 06	
33.	No Disadvantages or No Intrinsic Disadvantages	-42 -07 -62	-41 -19 -54	-39 16 -00	-15 -20 -40	-36 24 -61	
	Uses Activities to Promote Social-Emotional Development:						
34.	Direct Activities	49 50 49	52 32 68	34 21 44	30 13 44	38 22 49	
35.	Indirect Activities	-48 -45 -48	-47 -46 -45	-23 -05 -40	-28 -17 -34	-44 -40 -42	
	Advantages of Social-Emotional Development Activities:						
36.	Children Gain Knowledge of Others, Improved Relationships	10 -09 36	12 07 28	12 -19 24	14 29 15	03 11 21	
37.	Changes in Overt Behavior	23 62 01	18 54 -06	11 18 08	08 14 05	-18 09 -19	
	Disadvantages of Social-Emotional Activities:						
38.	Produces Embarassment to Some Children	09 33 --	-13 07 --	02 53 --	11 14 --	-12 -16 --	D
39.	Some Disadvantages Noted	10 20 -03	-06 -11 -09	04 73 -27	21 37 02	14 38 -04	

Table 5, cont'd.

Number	Process Variable	Word Knowledge	Word Discrimination	Reading	Arithmetic Computation	Arithmetic Reasoning	Mode
	Magic Circle Technique:						
40.	Familiar With It	13 -- 33	24 -- 30	27 -- 50	34 -- 26	12 -- -01	A
41.	Use It	32 -52 -14	-16 -38 03	-11 -40 -02	-18 -23 -06	-37 -39 -36	
	Advantages of Magic Circle:						
42.	Skill Learning	-08 03 --	15 00 --	-07 09 --	18 12 --	18 28 --	D
	Disadvantages of Magic Circle:						
43.	Some Disadvantages Noted	-22 -04 --	06 15 --	-19 05 --	-03 27 --	-35 17 --	A
44.	Procedural/Management Problems	-27 -02 --	-22 -12 --	-32 -03 --	-27 18 --	-48 13 --	A
	How Children Are Given Choice Regarding Assignment:						
45.	Structured Choice	-04 21 --	14 22 --	-09 20 --	-17 -05 --	-14 12 --	A
	Results of Children Choosing Assignment:						
46.	Other Positive Results	-03 -07 -09	-06 -13 -07	04 13 01	-09 -17 -10	-13 -19 -16	
	Types of Records Kept:						
47.	Test Scores	-10 -12 -07	-01 03 -02	05 -12 13	-08 -07 -08	-21 -06 -24	
48.	Health Data	08 06 --	-30 -39 --	03 04 --	-12 -33 --	-18 -52 --	D

Table 5, cont'd.

Number	Process Variable	Word Knowledge	Word Discrimination	Reading	Arithmetic Computation	Arithmetic Reasoning	Mode
Advantages of Learning Centers:							
49.	Academic Gains & Instructional Uses	-01 / -04	16 / 25 11	07 / -29 26	-02 / -10 08	-07 / -24 00	
50.	Non-academic Gains	-15 / -46 05	07 / -13 23	-14 / -44 00	-15 / -36 03	-29 / -65 -13	
Disadvantages of Learning Centers:							
51.	Procedural (Time, Space, Organization)	13 / -14 32	21 / 02 37	11 / -36 36	00 / 02 -04	21 / 04 20	
52.	Management/Control/ Discipline Hard to Maintain	-06 / 01 -07	-15 / -08 -20	-05 / -21 00	-12 / -47 26	-20 / -56 -03	
Willing to Use Learning Centers:							
53.	Unqualified Yes	-15 / -52 05	-04 / -11 -01	-04 / -11 00	-02 / -03 -04	-13 / 19 -29	
Advice to New Teachers Regarding Learning Centers:							
54.	Systematic Approach	12 / 00 21	13 / 23 06	-11 / -40 01	08 / -15 29	05 / -16 18	
55.	Procedural Consideration	16 / -21 34	18 / -08 31	33 / 45 35	58 / 47 65	41 / 31 43	
56.	Introduce by Discussion, Explain Rules, Involve Kids in Planning	-11 / -53 16	-43 / -56 -36	-07 / -32 04	-02 / -12 07	-12 / -21 -11	
57.	Start Slowly with Few LC's and Build Over Time	-20 / -- -32	-24 / -- -40	-24 / -- -26	-50 / -- -36	-49 / -- -39	D

Table 5, cont'd.

Number	Process Variable	Word Knowledge	Word Discrimination	Reading	Arithmetic Computation	Arithmetic Reasoning	Mode
Provide for Individual Differences by:							
58.	Grouping	-19 -55 02	-28 -46 -18	-16 -42 -05	04 -02 08	08 -02 01	
59.	Individualized Assignments	29 -- 12	21 -- 15	-15 -- -15	-10 -- -19	06 -- -01	A
60.	Supplementary Materials & Teaching Time	04 -- 00	-09 -- -14	16 -- 33	18 -- 34	07 -- 12	A
Do Especially for High Achievers:							
61.	Creative Activities	-02 -02 --	09 05 --	04 00 --	05 25 --	02 18 --	A
Do Especially for Low Achievers:							
62.	Peer Tutors	22 34 12	26 40 14	11 07 15	29 28 29	28 45 21	
63.	Extra Teacher Time or Parental Help	36 31 45	07 21 00	39 51 38	24 35 18	29 31 35	
64.	Encouragement, Efforts to Build Self-Confidence	05 22 -16	09 40 -22	-13 -08 -17	-14 -10 -27	-15 -05 -26	
Open Classroom:							
65.	Some Open Classroom Experience or Exposure	-17 -19 -22	-16 -31 -10	03 07 02	00 -22 15	-12 -62 06	
Advantages of Open Classroom:							
66.	Academic Advantages & Teaching Opportunities	-08 02 --	-11 11 --	00 24 --	-04 06 --	-16 12 --	D
67.	Named at Least One Advantage	-02 -27 14	-04 -22 07	32 01 50	17 -14 46	10 -30 33	

Table 5, cont'd.

Number	Process Variable	Word Knowledge	Word Discrimination	Reading	Arithmetic Computation	Arithmetic Reasoning	Mode
Disadvantage of Open Classroom:							
68.	Disadvantage to Child in Some Way	17 05 23	38 47 33	38 24 48	49 46 51	43 59 39	
69.	Discipline/Noise Problem	31 63 12	23 69 -05	30 45 26	31 58 08	13 50 -01	
70.	Too Many Demands on Teacher's Time	20 16 --	17 25 --	02 01 --	02 -17 --	08 -20 --	D
Team Teaching:							
71.	Has Had Experience with Team Teaching	00 45 --	04 35 --	-10 -20 --	-08 02 --	-22 -15 --	A
Advantages of Team Teaching:							
72.	Children Benefit Academically, Easier to Individualize	03 07 11	23 08 46	-03 -01 -07	-15 -19 -04	-14 -33 02	
73.	Teachers Share Knowledge, Work, Suggestions	-12 -19 -03	-19 -22 -14	03 02 03	-06 -09 00	-17 09 -21	
74.	Teacher Has Lighter Load, Can Teach Her Specialty	04 -08 07	07 -29 28	-03 -14 03	-19 -28 -17	-30 -71 -22	
Disadvantages of Team Teaching:							
75.	Time Problems with Class Limits & Transitions	-29 -22 -42	-08 14 -31	-28 02 -46	-04 23 -33	-19 15 -32	
76.	Must Have Teacher Cooperation & Flexibility	-17 -40 -03	-07 -14 -02	-02 -15 04	11 11 11	00 18 -06	

Table 5, cont'd.

Number	Process Variable	Word Knowledge	Word Discrimination	Reading	Arithmetic Computation	Arithmetic Reasoning	Mode
77.	Has Had Experience with or Exposure to IGE	19 25 06	17 34 -04	01 -03 05	-04 -21 02	15 -29 24	
	Advantages of IGE:						
78.	Academic Advantages	-11 05 -15	-15 -15 -16	-21 33 **-51**	-09 40 -45	-29 14 -39	
79.	At Least One Advantage Named	-06 23 --	-05 07 --	-06 **69** --	01 42 --	-17 38 --	A
	Disadvantages Of IGE:						
80.	Procedural and Management	-01 -- -07	28 -- 36	19 -- 10	-02 -- -13	-20 -- -29	A
	Willingness to Use IGE:						
81.	Would Use or Maybe Would Use IGE	04 13 -10	04 05 -03	24 37 23	26 35 12	-06 15 -27	
	Non-Graded Classroom:						
82.	Experience or Exposure to Non-Graded Classroom	05 26 -10	-04 00 -08	00 04 -01	-23 -31 -17	-15 -31 -18	
	Advantages of Non-Graded Classrooms:						
83.	Academic Advantages, Individualized, Self-paced	-04 -05 -05	-06 07 -17	08 15 06	08 17 -01	03 40 -04	
84.	Emotional Advantages	-24 **-44** -21	-31 **-56** -18	-06 -18 03	07 -06 14	-13 -17 -23	
	Disadvantages of Non-Graded:						
85.	Procedural-Time, Material	-05 -04 --	-13 00 --	-28 -35 --	-21 **-45** --	-31 **-68** --	D
86.	Disadvantage to Kids, Including Age-Grouping	24 38 08	30 15 38	-03 07 -05	-17 02 -41	-18 -18 -23	

Table 5, cont'd.

Number	Process Variable	Word Knowledge	Word Discrimination	Reading	Arithmetic Computation	Arithmetic Reasoning	Mode
87.	Lack of Feedback to Parents, Kids, Schools	-09 -- -05	-07 -- -08	-08 -- -17	-02 -- -09	03 -- 03	D
88.	At Least One Disadvantage	18 -- 06	06 -- 03	-21 -- -21	-28 -- -35	-15 -- -21	A
	Willingness to Use Non-Graded Classroom:						
89.	Would Use Non-Graded Classroom	-07 -33 08	-26 -32 -25	26 -13 46	14 -19 39	13 -03 13	
	If Child Answers Question Correctly:						
90.	Acknowledge Correctness (No Praise)	18 15 22	29 42 20	04 -10 11	34 40 31	29 61 14	
91.	Response to Answers depends on Child and Question	-20 -- -11	-30 -- -31	12 -- 12	-04 -- -03	-15 -- -07	D
	If Child Gives Incorrect Answer:						
92.	Ask another	-28 -16 -39	-29 -05 -48	-36 -24 -46	-22 05 -46	-36 -10 -45	
93.	Emphasize Some Positive Aspect of Response	-06 -54 23	-02 -40 24	-03 -58 22	00 -26 21	07 -36 28	
	If Child Doesn't Know Answer:						
94.	Ask Another	00 14 -06	-04 05 -09	-06 39 -30	14 55 -22	-06 29 -19	
95.	Stay with Child, Sustain	33 -18 64	36 10 52	22 -44 54	33 -20 75	48 -04 69	
	If Child Gives No Response:						
96.	Ask Another	-17 24 -39	-21 03 -35	-22 04 -36	-27 06 -51	-54 -34 -57	

Table 5, cont'd.

Number	Process Variable	Word Knowledge	Word Discrimination	Reading	Arithmetic Computation	Arithmetic Reasoning	Mode
97.	Return to Child Later	14 33 --	20 43 --	18 42 --	26 34 --	-08 54 --	D
98.	How Long Teacher Awaits Response Depends on Child and Situation	05 14 -06	-04 10 -20	-12 -19 -09	-11 -30 02	-13 -59 02	
	If Child Wasn't Paying Attention:						
99.	Remind Child to Listen, Get Attention - A Neutral Response	31 -15 55	16 -17 31	38 24 59	25 16 24	41 26 41	
100.	Criticism, Scolding - A Negative Response	-09 22 -07	-04 06 04	-12 -42 -10	-25 -10 -25	-37 -13 -34	
	If Child Doesn't Understand Question:						
101.	Repeat, Rephrase	05 -17 28	-22 -45 01	21 42 12	04 -12 26	08 -08 21	
102.	Uses Occation as Indication of Need to Reteach or Additional Work	07 12 09	29 21 41	14 -27 33	-13 -21 -01	-09 -19 05	
	If Seatwork is Correct:						
103.	Verbal or Written Praise	11 20 10	-14 51 -09	23 02 34	11 24 03	01 16 01	
104.	Reward	-33 -23 -45	04 19 -08	-35 -38 -37	-19 -12 -27	-17 06 -37	
	If Seatwork is Incorrect Because Child Misunderstands:						
105.	Reteach or Additional Instructional Effort	-05 -40 --	-10 -40 --	04 -19 --	-18 -31 --	08 -17 --	A
106.	Give Easier Assignment, More Practice	15 -- 25	-03 -- 03	14 -- 07	08 -- -11	-20 -- -18	D

Table 5, cont'd.

Number	Process Variable	Word Knowledge	Word Discrimination	Reading	Arithmetic Computation	Arithmetic Reasoning	Mode
	If Seatwork is Incorrect Because Sloppy & Done Too Quickly:						
107.	Redo It (No Qualifications)	-04 11 -30	-03 -16 -05	-07 -18 00	-17 -42 -08	-12 -45 -21	
108.	Redo, If (Depends on Child)	-04 -- 05	01 -- -02	-20 -- -28	-05 -- -11	-14 -- -09	D
	Determine Readiness By:						
109.	Old Records	-11 -11 -02	-06 29 -25	02 -03 02	06 18 04	-12 29 -20	
110.	New Testing	26 02 43	16 -05 33	50 14 72	20 -19 55	30 -13 43	
	Tests Given By:						
111.	Unit or Situational Need	-15 04 --	08 27 --	-01 33 --	07 33 --	00 66 --	A
112.	Time Intervals	-05 -- -19	-02 -- -24	-15 -- -08	03 -- -04	-26 -- -31	A
	Use of Tests:						
113.	Tests are Useful But Must Be Supplemented With Teacher's Judgement	12 -- 05	09 -- -16	-15 -- -19	-02 -- 13	21 -- 32	D
114.	Show Tests Only to Child and Parent	11 11 15	05 -15 21	09 07 10	11 -02 25	23 14 23	
	Parts of Speech:						
115.	It is Important to Know Names of Parts of Speech	-21 -22 -14	-04 -05 03	-01 -04 -01	-14 09 -26	-18 09 -21	

Table 5, cont'd.

Number	Process Variable	Word Knowledge	Word Discrimination	Reading	Arithmetic Computation	Arithmetic Reasoning	Mode
If A Child Uses Incorrect Grammer:							
116.	Ignore It	20 21 —	35 39 --	25 28 --	36 43 --	32 57 --	D
117.	Correct It	-15 04 --	04 19 --	08 -07 --	-14 -01 --	-23 19 --	A
118.	Model Correct Use	-07 -11 --	-16 -08 --	-31 -45 --	-21 -40 --	-23 -61 --	D
119.	Reaction to Slang and Dialect Depends on Child, Situation, Slang	14 -07 27	15 05 21	15 09 22	30 28 30	41 35 41	
Main Cause of Reading Failure:							
120.	Attitudinal, Motivational, Attentional	05 41 -19	-11 40 -50	-04 12 -13	01 -08 08	-02 -16 00	
121.	Child's Intrinsic Limitations	07 02 07	-06 -17 01	12 51 -05	18 49 -13	12 56 -04	
Reading Helps:							
122.	It is Important to Read Silently Before Reading Aloud	-19 -02 --	-12 -06 --	00 37 --	01 31 --	-08 40 --	A
123.	Correct Word Calling is Important, Expect & Emphasize It	15 15 22	08 -19 34	22 09 30	-13 -41 17	-16 -66 08	
124.	Use of Marker in Reading Depends on If Child Needs It	08 09 07	-03 02 -06	02 12 -02	20 06 34	16 26 09	
Get Advice On Reading Instruction From:							
125.	Inservice Workshops	-11 -45 02	02 -22 13	01 -07 07	01 01 -06	02 06 -07	

Table 5, cont'd.

Number	Process Variable	Word Knowledge	Word Discrimination	Reading	Arithmetic Computation	Arithmetic Reasoning	Mode
126.	Other People	27 -- 44	23 -- 39	33 -- 59	27 -- 36	29 -- 31	A
127.	Named More than One Source	25 07 36	21 -06 40	44 25 57	44 37 49	50 31 62	
	Kinds of Records Kept on Reading Group Performance:						
128.	Skills Checklist	05 -13 34	-03 -21 24	07 -31 25	-04 -03 06	08 24 12	
129.	Tests/Samples of Work	-46 -17 -65	-45 -17 -64	-31 -06 -50	-39 -31 -43	-47 -45 -51	
	Basis for Forming & Changing Reading Groups:						
130.	Now Testing	-25 05 -45	-20 06 -39	-14 09 -29	-06 -09 02	-06 -02 -04	
131.	Past Performance	16 -02 --	-02 00 --	01 -11 --	01 -17 --	09 -35 --	D
132.	Frequency of Reading Group Change Depends on Child	-23 -25 -10	01 04 16	05 -05 06	-22 01 -31	-37 -04 -36	
	Kinds of Readers Kept Available:						
133.	Library Books	16 -03 --	21 05 --	10 -01 --	16 35 --	32 69 --	A
134.	Magazines	14 -- 43	16 -- 41	27 -- 54	12 -- 37	14 -- 26	D
135.	Reference Books	18 -- 45	06 -- 21	12 -- 29	04 -- 16	10 -- 27	D

Table 5, cont'd

Number	Process Variable	Word Knowledge	Word Discrimination	Reading	Arithmetic Computation	Arithmetic Reasoning	Mode
136.	Children Have Free Choice of Supplementary Readers	-08 / -43 24	19 / -06 48	-07 / -65 20	-20 / -32 -04	-13 / -40 05	
	What Typical Reading Group is Like:						
137.	New Vocabulary & Skills At Beginning	-35 / -20 -44	-47 / -21 -67	-28 / -11 -42	-36 / -31 -39	-48 / -22 -55	
138.	Read Silently	-34 / -28 -35	-28 / -46 -09	-24 / -03 -40	-24 / -22 -20	-38 / -22 -41	
139.	Discuss Lesson	-28 / -28 -33	-08 / -12 -08	-34 / -17 -43	-20 / -35 -10	-20 / -22 -23	
140.	Read Orally	33 / 54 37	07 / 35 -03	25 / 14 31	08 / 14 16	-02 / 29 -04	
141.	Written Assignment	-25 / -29 --	-03 / 02 --	-08 / -10 --	-19 / -08 --	00 / 34 --	A
142.	Pattern Depends on Students Group, Lesson	-12 / -47 --	-03 / -24 --	-19 / -45 --	00 / -14 --	07 / -24 --	D
	Purpose of Reading Order:						
143.	Flexibility (Random)	-18 / -32 --	-24 / -22 --	-12 / -24 --	09 / -02 --	-14 / -17 --	D
144.	Keeps Attention (Random)	01 / -01 08	-13 / -08 -13	-10 / 13 -22	-07 / 04 -13	-04 / 11 -01	
	Word Attack Skills:						
145.	Stresses Both Single Letter and Combinations in Teaching Word Attack	23 / 17 26	28 / 52 09	15 / 10 19	30 / 40 20	40 / 51 42	

Table 5, cont'd.

Number	Process Variable	Word Knowledge	Word Discrimination	Reading	Arithmetic Computation	Arithmetic Reasoning	Mode
	Help for Slow Reader:						
146.	Remedial Work, Special Assignments	18 -31 <u>49</u>	-10 -17 -07	11 <u>-47</u> 36	20 -11 <u>45</u>	20 -05 37	
147.	Extra Teacher Time or Teacher Substitute	01 -- -37	-09 -- <u>-46</u>	-03 -- -14	-19 -- -22	-28 -- -22	D
148.	Encouragement & Incentive	23 -05 <u>45</u>	12 36 00	15 -26 32	21 00 42	<u>44</u> 27 <u>55</u>	
	Teaches Writing By:						
149.	Following Handbook	-05 -03 -07	-12 -33 03	-01 -09 03	-01 -34 27	-01 -45 02	
150.	Emphasizing Letter Formation	-27 -21 -38	01 24 -21	-23 -03 -33	-16 18 <u>-51</u>	-13 29 -27	
	Teach Spelling By:						
151.	No Spelling Bees	<u>-31</u> -19 -39	-29 -13 -40	-12 01 -20	-23 11 <u>-49</u>	-33 10 -36	
152.	Use Handbook or Textbook	<u>33</u> 15 <u>48</u>	15 -10 34	23 18 28	31 28 34	<u>43</u> 30 44	
153.	Word Structure	16 -18 --	24 13 --	10 27 --	30 41 --	33 43 --	D
	Teaches Writing By:						
154.	No Special Teaching Methods for Left Handed Children	-30 -- -07	-23 -- 01	-14 -- -05	-28 -- -05	-34 -- -22	D
	Teaches Math By:						
155.	Stresses Principles Primarily in Mathematics	15 -- 03	12 -- -05	10 -- 30	22 -- <u>51</u>	17 -- 32	A

Table 5, cont'd.

Number	Process Variable	Word Knowledge	Word Discrimination	Reading	Arithmetic Computation	Arithmetic Reasoning	Mode
156.	Has Some Type of Math Groups	01 -09 05	-04 -14 01	25 05 36	18 04 27	04 -22 00	
	Advantages in Word Problems:						
157.	Reasoning & Problem Solving Skills Strengthened	-23 13 -48	-16 15 -38	-28 40 -64	-26 -04 -44	-32 31 -56	
158.	Practical Application	-05 -- 09	08 -- 21	10 -- 08	13 -- 16	19 -- 34	D
159.	Reading Practice	06 -20 --	12 03 --	14 40 --	24 38 --	10 44 --	D
	If Child Has Problems with Math Seatwork:						
160.	Uses Peer Tutors	11 52 --	00 37 --	-17 02 --	-11 03 --	-28 -03 --	D
	General Classroom Rules:						
161.	Emphasizes Behavior To Other Children	-17 -34 --	-13 -08 --	-12 -17 --	-19 -11 --	-20 -17 --	A
162.	Named 4 or Less Specific Behavioral Rules	-13 -05 -11	-08 06 -13	-24 -37 -23	-28 -17 -33	-20 -17 -20	
	Teach Kids to Follow Rules by:						
163.	Teacher Makes Rules, But Discusses with Kids	05 -41 --	23 -27 --	30 11 --	18 04 --	24 09 --	D
	Use of Washroom:						
164.	No Restrictions About Use of Washroom Except Number at Any One Time	07 -12 26	06 -33 40	04 -03 07	-02 -24 23	20 -17 39	

Table 5, cont'd.

Number	Process Variable	Word Knowledge	Word Discrimination	Reading	Arithmetic Computation	Arithmetic Reasoning	Mode
Kinds of Monitors or Helpers Used:							
165.	Leader Type	-10 15 -22	02 05 05	-13 -46 -01	-24 -50 00	-29 -58 -18	
166.	Messenger, Errands, Office Work	-15 -05 -15	-05 31 -25	-03 12 -12	17 31 12	04 45 05	
167.	Activities Directly Related to Introduction	-11 -40 12	09 00 18	-11 -38 01	10 04 19	19 35 20	
168.	Six to Ten Specific Types of Monitors Named	-13 -34 03	-08 11 -21	-28 -58 -17	-04 -10 04	-02 -12 12	
Monitors Are Selected:							
169.	Random Rotation	52 44 52	36 23 39	38 33 51	30 30 22	42 10 48	
170.	Selected, Volunteer, Point System	-40 -03 --	-33 06 --	-29 -16 --	-30 -25 --	-36 -07 --	A
Handling of Money:							
171.	Collect Lunch Fees or Other Money	34 02 58	08 13 05	21 -01 34	09 -09 25	11 -41 26	
If Child Doesn't Have Item He is Supposed to Have:							
172.	Lend It to Him	-09 -36 09	-11 -49 17	11 -06 19	06 06 06	-03 -03 -13	
173.	Give It to Him	-09 -15 -09	-03 13 -17	-24 -38 -19	-13 -24 -06	-03 -33 13	

Table 5, cont'd.

Number	Process Variable	Word Knowledge	Word Discrimination	Reading	Arithmetic Computation	Arithmetic Reasoning	Mode
174.	Child Checks Work at Least Some of the Time Without Restriction	-18 / -- -10	-19 / -- -23	-05 / -- -12	-11 / -- -22	-13 / -- -33	A
	Disadvantages of Self-Checking:						
175.	Cheating	17 / 11 20	23 / 43 07	-10 / -34 01	22 / 06 35	29 / 19 31	
176.	Children Make Mistakes and Aren't Accurate	-08 / -06 -10	00 / -13 10	04 / 14 00	-09 / 02 -18	-01 / 22 -12	
	If Child is Cheating:						
177.	Call Attention to It and Sometimes Punish Without Discussion	09 / 03 11	13 / -23 40	-07 / -22 00	-21 / -32 -12	-02 / -32 03	
	If Child Makes a Mistake in Checking:						
178.	Teacher Rechecks, Points out Mistake	-35 / -- -39	-07 / -- 13	-28 / -- -42	-49 / -- -53	-46 / -- -50	D
179.	This is No Problem	07 / 03 --	16 / 33 --	12 / 19 --	24 / 22 --	22 / 25 --	D
	Rules Should Be:						
180.	Few and Flexible	-03 / -36 17	-09 / -32 06	19 / 12 25	21 / 04 34	15 / 03 21	
181.	Few and Flexible Because Most Effective	-04 / -41 25	03 / -47 43	-10 / -06 -14	-13 / -08 -14	00 / -41 25	
182.	Few and Flexible Because Situations Change	-37 / -17 -53	04 / 19 -06	-52 / -57 -55	-32 / -24 -40	-33 / -16 -41	

Table 5, cont'd.

Number	Process Variable	Word Knowledge	Word Discrimination	Reading	Arithmetic Computation	Arithmetic Reasoning	Mode
Advice to New Teachers on Management:							
183.	Be Strict at First	11 14 10	-02 -21 12	12 -02 19	12 -09 30	-06 -19 -05	
184.	Have Lessons Planned, Know Subject, Keep Kids Busy	-34 -38 -33	-20 -18 -22	-13 08 -25	02 24 -18	14 53 -01	
Whole Class Sometimes Restive Because:							
185.	Change in Routine or Special Event	08 -05 --	-16 07 --	-04 -50 --	00 -17 --	06 -22 --	A
186.	Weather	48 38 59	17 41 -01	23 10 32	28 28 28	32 02 42	
187.	Children Bored, Ill, Tired	26 11 35	30 -11 61	26 30 31	11 -01 16	06 -27 19	
188.	Teacher's Mood is Bad	13 72 --	02 39 --	-36 08 --	-24 06 --	-31 -06 --	D
189.	Children Act Out as a Result of Home and Parental Influence	-08 19 -20	01 08 02	-26 -50 -19	-30 -32 -23	-38 -54 -31	
Barriers to Rapport:							
190.	Something in the School Environment	13 -- 30	-17 -- -16	18 -- 17	13 -- 36	08 -- 34	D
Can Establish Rapport By:							
191.	Non-Specific; Effort at Better Understanding	18 36 --	07 18 --	-11 27 --	09 07 --	18 01 --	D

Table 5, cont'd.

Number	Process Variable	Word Knowledge	Word Discrimination	Reading	Arithmetic Computation	Arithmetic Reasoning	Mode
	Behaviors Serious Enough to Punish:						
192.	General Misbehavior (Breaking Rules)	40 **37** 44	46 19 04	14 25 31	19 26 37	**58** **37** 32	
193.	Moral Misbehavior (Lying, Stealing, Cheating)	10 28 --	00 22 --	14 22 --	-07 03 --	-21 05 --	D
	Punishment Methods Used:						
194.	Spanking	-19 17 35	08 06 -01	**-54** -07 14	-27 -08 00	-20 01 05	
195.	Removing Privileges	39 16 -06	37 11 -14	-01 -03 -02	-26 -05 06	-13 08 10	
196.	Referral to Principal or Parent	**-58** **-34** -12	**-47** **-35** -21	22 09 02	36 29 35	39 11 14	
197.	Application of Punishment Other Than Spanking or Principal	-12 -20 -38	-11 -14 -25	-21 -27 -33	-10 -18 -35	-28 -25 -44	
	Most Effective Punishment:						
198.	Aversive Punishment	-16 -03 08	18 10 06	-25 01 12	-03 19 41	11 19 31	
	If Child is Sulking or Defiant:						
199.	Ignore	16 20 22	39 32 26	-07 -05 -04	-20 -16 -15	-13 -02 -06	
200.	Take Some Definite Action Other Than Talking	-36 -23 -15	**-52** -24 -03	-38 -10 02	-24 -08 07	-36 -16 -03	

Table 5, cont'd.

Number	Process Variable	Word Knowledge	Word Discrimination	Reading	Arithmetic Computation	Arithmetic Reasoning	Mode
If Assignment Undone, Incomplete, Sloppy:							
201.	Refer to Parents	-13 -24 --	00 -18 --	-05 -04 --	-21 -37 --	-20 -02 --	D
If Show-Off Causing Disruption:							
202.	Focus on Problem and Take Action	-25 -28 -27	-23 -37 -16	-14 -29 -08	-03 -18 -08	-16 -09 -32	
203.	Isolate	-34 48 32	11 -12 31	11 14 10	-19 -26 -10	09 -26 27	
204.	Ignore	07 -14 --	18 19 --	-14 -44 --	05 -11 --	08 -07 --	D
If Disruptive Due to Emotional Disturbance:							
205.	Referral for Outside Help	-02 52 -28	-26 29 -61	04 44 -16	01 33 -19	-30 -08 -31	
206.	Talk to Alone, Try to Uncover Problem	02 -13 11	30 19 39	19 01 32	39 29 47	48 56 48	
If Ordinarily Stable Child is Upset:							
207.	Teacher Not Only Talks But Takes Action	-10 -27 --	-09 -20 --	-13 -01 --	03 -09 --	-05 -24 --	D
208.	Would Handle By Self	-19 -27 --	02 29 --	-05 -14 --	16 27 --	00 33 --	D
209.	Would Get Help	21 09 34	33 -17 72	11 16 10	01 08 -03	15 24 14	

Table 5, cont'd.

Number	Process Variable	Word Knowledge	Word Discrimination	Reading	Arithmetic Computation	Arithmetic Reasoning	Mode
210.	Depending on Situation Would Deal With By Self Or Get Help	-03 -- -09	-37 -- -45	-06 -- -10	-17 -- 08	-16 -- 07	D
	With Group Misbehaviors:						
211.	Discuss and Find Cause	-10 02 -15	05 -17 24	-31 -52 -25	-28 -42 -14	-19 -58 -09	
212.	Punish Group	10 17 -04	11 13 02	11 47 -02	30 16 36	28 08 33	
213.	Divert Attention to Something Else	-15 -- -11	-12 -- -16	-05 -- -02	00 -- 08	-12 -- -01	D
214.	Has Plan A Children In Class	27 34 19	22 26 15	26 15 36	28 13 40	27 17 24	
	What Do You Think of Plan A:						
215.	Generally Like and Support It	-19 -49 -02	-14 -49 14	-07 -43 12	-02 -22 15	04 05 -03	
216.	Dislike and Against It	13 46 --	13 44 --	-05 22 --	-08 -01 --	-27 -22 --	D
217.	Don't Know, Neutral no Response	03 -- 20	-06 -- -01	06 -- -04	03 -- -01	05 -- 25	D
	Advantages of Plan A:						
218.	Exposure to Many People	-12 -16 -13	-22 -13 -32	-09 -18 -04	-01 -03 -04	-05 08 -16	
219.	Removal of Social Stigma For Plan A Kids	-25 -50 --	-17 -32 --	-14 -22 --	-08 -11 --	-03 -10 --	D

Table 5, cont'd.

Number	Process Variable	Word Knowledge	Word Discrimination	Reading	Arithmetic Computation	Arithmetic Reasoning	Mode
220.	At Least One Advantage Named	-24 -- -14	-18 -- -08	-02 -- 08	09 -- 13	06 -- -13	A
	Disadvantages of Plan A:						
221.	Disruptive Influences in Class	-12 25 -38	-08 28 -38	06 18 00	-01 -08 09	-10 17 -27	
	Behavior Modification:						
222.	Some Use of Behavior Modification Techniques	-33 -51 -19	-44 -29 -53	-14 -36 -06	-13 -04 -17	-33 -26 -38	
223.	Focus of Behavior Modification is Good	-23 -- -31	-37 -- -67	03 -- 03	01 -- -02	-31 -- -35	D
224.	Behavior Modification Has Some Disadvantages	03 -- 09	10 -- 20	-04 -- 14	-04 -- 18	-11 -- 05	LoN
	Try to Motivate Under-Achievers By:						
225.	Individual Help	03 29 -05	12 59 -13	-20 -50 -12	-02 -03 06	-01 13 07	
	Conduct Grades:						
226.	Conferences Preferable	43 44 --	40 17 --	47 56 --	38 30 --	34 13 --	D
	Role of Parents in School Affairs Other Than PTA:						
227.	Parent-volunteers Used in Instructional Roles	21 25 18	12 -24 38	14 47 -01	-16 05 -38	-14 -12 -18	
228.	Parent-volunteers Used in Non-Instructional Roles	06 -- -11	18 -- 18	-04 -- -08	-03 -- -21	-03 -- -28	A

Table 5, cont'd.

Number	Process Variable	Word Knowledge	Word Discrimination	Reading	Arithmetic Computation	Arithmetic Reasoning	Mode
	Parent is Cooperative if:						
229.	Can Communicate With Teacher	18 -34 53	28 08 43	35 -14 62	24 13 33	15 17 15	
	Parent is Uncooperative if:						
230.	Uncommunicative, Uninterested, Unavailable	02 06 -03	03 25 -15	-20 -39 -12	-18 -23 -17	03 -17 05	
	Teacher Involvement:						
231.	Teacher Would Involve Self in Possible Child Abuse Problem	-09 10 -22	-18 -02 -32	02 04 02	01 -01 03	-10 -10 -07	
	Determines Student Involvement By:						
232.	Facial Expression	12 -07 23	-06 16 -24	05 -21 18	08 16 -01	-10 09 -19	
233.	Restlessness and General Response	07 29 -04	-11 -05 -14	05 07 05	-16 -10 -20	-06 -09 -03	
234.	Verbal Assessment	27 44 10	64 66 60	14 28 12	43 48 16	37 35 39	
	How Do You Diagnose Problems:						
235.	Analyze Material Step by Step, Back Track	02 -19 19	-10 -04 -10	-11 -43 01	-11 -36 13	00 -08 09	
	Why Don't Low Achievers Do Better:						
236.	Either Need More Time or Have Ability Limitations	02 -04 --	04 -15 --	04 22 --	33 25 --	30 40 --	D
237.	Need More Time and Have Ability Limitations	07 -13 25	16 10 23	-01 -36 15	-27 -32 -21	-15 -40 -04	

Table 5, cont'd.

Number	Process Variable	Word Knowledge	Word Discrimination	Reading	Arithmetic Computation	Arithmetic Reasoning	Mode
IGE:							
238.	Retards Social Development	02 11 --	11 18 --	-06 -21 --	-05 -09 --	01 -27 --	D
239.	Helps Social Development	17 28 07	20 07 30	08 -16 22	04 -10 14	-19 -34 -20	
240.	Don't Know or No Response	-13 -25 00	-30 -25 -29	-04 -10 -04	-08 02 -10	09 31 04	
Dress Codes:							
241.	Clearly Unconcerned	-19 -07 -28	-04 18 -21	-31 -09 -45	-08 26 -39	-03 41 -14	
Advantages of Busing:							
242.	Gave at Least One Advantage	12 34 -10	25 34 15	-01 23 -09	10 24 -10	16 05 21	
Disadvantages of Busing:							
243.	Wastes Time, Traffic Danger, Expensive	14 18 11	29 34 26	11 -04 21	05 04 05	-19 -29 -16	
Extra-Classroom Professional Activities:							
244.	Always Participates in PTA Activities	10 21 12	15 22 18	-06 -24 01	-04 -21 19	-04 -40 20	
245.	Read 3 or More Specific Magazines in Past Year	07 -09 18	-06 23 -29	00 04 -02	07 -12 25	11 -13 23	
Effects of Weather:							
246.	Some Weather Makes Children Sluggish, Listless and Depressed	-12 -25 -09	-21 -22 -26	-29 -24 -35	-07 -13 -07	-22 -21 -25	

Table 5, cont'd.

Number	Process Variable	Word Knowledge	Word Discrimination	Reading	Arithmetic Computation	Arithmetic Reasoning	Code
	Minority Students:						
247.	Teaches Or Has Taught Mexican-American Children	-41 -49 -38	-24 -23 -26	-13 -19 -11	-04 -08 -01	-08 01 -08	
248.	Mexican-American Children Have Specific Needs With English Problems	-06 -08 -05	-17 27 -50	-14 -24 -11	12 05 18	08 12 08	
249.	Meet Needs of Mexican-American Children by Specific Approach to Language Skills	07 20 --	11 48 --	-13 13 --	06 11 --	08 41 --	D
250.	Lists at Least One Suggestion for Special Approach to Mexican-American Children	11 -07 18	26 19 28	00 -07 05	03 -07 07	04 02 05	
251.	IGE is Good for Mexican-American Children	08 -- -15	33 -- 50	-01 -- -19	-12 -- -23	-15 -- -07	D
252.	IGE is Not Good for Mexican-American Children	04 13 --	08 32 --	04 26 --	05 03 --	-11 04 --	D
253.	Don't Know if IGE is Good for Mexican-American Children	01 -29 29	-31 -36 -24	01 -43 20	02 -17 25	21 05 36	
254.	Teaches or Has Taught Black Children	-34 13 -73	-27 15 -63	-47 -34 -57	-28 -19 -42	-48 -50 -60	
255.	Black Children Have No Special Needs	15 -- 27	34 -- 49	10 -- 12	03 -- 05	12 -- 23	D
256.	Treats Black Children Like Any Other Child - No Special Approach	-26 -51 -09	-30 -37 -25	-04 -38 10	-04 -44 30	06 -34 23	

Table 5, cont'd.

Number	Process Variable	Word Knowledge	Word Discrimination	Reading	Arithmetic Computation	Arithmetic Reasoning	Mode
257.	Social-Emotional Suggestions for Meeting Black Children's Needs	-18 -13 --	-02 21 --	-34 -35 --	-33 -17 --	-35 -24 --	D
	Limitations of Physical Facilities:						
258.	Present Classroom Presents Problems	02 -- 10	-20 -- -05	06 -- 10	-06 -- 02	03 -- 03	A
259.	Present Classroom Has Space and Storage Needs	-07 -31 02	-19 -50 -03	07 22 02	-05 -16 -01	-03 -13 -07	
260.	Present Classroom Needs More Materials, Equipment, Facilities	-15 -19 --	-22 -29 --	-07 05 --	-16 -25 --	-08 -17 --	D

[1] For each set of three coefficients, the top (centered) coefficient is for the entire sample, the coefficient at the lower left is for teachers of low SES students, and the coefficient at the lower right is for teachers of high SES students.

Probability values are indicated by underlining. p .10 where no line appears; .10 p .05 where one line appears; and p .05 where two lines appear.

[2] Where dashes appear instead of correlation coefficients, variance on the item was too low to permit analyses for one or both subgroups or for the total group. In these cases subjects tended to be nearly unanimous in agreeing or disagreeing with the item. A (agree) and D (disagree) are typed in the mode column to indicate the reason for low variance. In one case LoN is typed in to indicate that there were not enough data to analyze.

Table 6. Correlations between Teacher Interview Combined Scores and Student Residual Gain Scores (averaged across four years) on the Metropolitan Achievement Tests (decimal points omitted).[1]

		T L	T H	T L	T H	T L	T H	T L	T H	T L	T H
		WK		WD		R		AC		AR	
1.	Teacher places restrictions on parental involvement	-19	-24 -21	-17	-36 -46	-28	-22 -25	-48	-29 -08	-42	-38 -32
2.	Parents play an important role in teacher-child rapport	-11	-06 -10	03	-01 -11	-31	-10 01	-14	-06 -04	-11	-16 -31
3.	Teacher defines parental cooperation by interest in child, not teacher	18	-05 -15	22	-10 -28	10	-13 -25	07	-08 -17	05	-07 -08
4.	School open to parent's visits without restrictions	-25	00 08	-41	-07 08	-25	11 27	-08	16 29	00	25 26
5.	Teacher names disadvantage of busing in terms of children's emotional harm	15	-01 -14	54	32 14	04	-08 -16	35	19 02	64	12 01
6.	Teacher names black students' needs as instructional, not social-emotional	01	17 27	-33	10 40	-17	05 14	-42	-09 15	-45	14 38
7.	Teacher does individual reading about education	38	-07 -46	-4	-05 -43	14	-07 -26	31	14 -03	10	-18 -33
8.	Teacher subscribes to magazines	-21	-18 -24	-14	04 11	23	04 -02	-12	-03 -01	-18	-17 -25
9.	Teacher relies on school personnel for advice about teaching	-08	-04 -01	-08	-16 -25	20	04 -08	30	07 -16	25	09 -04
10.	Teacher uses psychological services	12	13 09	34	11 -15	07	15 24	00	25 40	18	16 08
11.	Teacher implies she takes active role in individual re-teaching.	43	37 28	57	27 00	14	08 09	20	16 08	01	25 25

Table 6, cont'd.

	WK	WD	R	AC	AR
12. Teacher makes direct effort to respond to motivation problems	12 -25 28	32 -19 62	09 -31 27	17 -14 37	50 27 47
13. Teacher exhibits favorable attitude toward conduct grades	13 23 11	26 53 11	-09 08 -18	-05 26 -29	11 26 12
14. Teacher uses own diagnosis to plan teaching	-21 -30 -23	-16 -10 -28	01 47 -25	07 44 -39	-15 32 -46
15. Teacher uses non-objective records	-03 11 -14	-23 22 -58	-11 15 -24	12 21 05	13 40 00
16. Teacher uses her own judgment based on child's performance (non-testing)	02 07 -03	05 20 -07	-02 16 -10	11 34 -09	00 66 -23
17. Teacher used only subjective criterion to judge her success	-05 -43 15	-16 -57 07	20 -11 39	09 -23 32	13 -22 20
18. Teacher bases her response to a mistake on the child's explanation	08 -11 16	08 -20 24	13 27 09	18 29 06	22 02 23
19. Teacher keeps up pace by not waiting, sustaining, or correcting	37 38 28	33 68 -02	00 14 08	18 21 06	22 12 15
20. Teacher has a specific approach to non-responders, instead of simply waiting	-07 23 -26	04 30 -13	17 42 05	27 52 07	07 36 -03
21. Teacher sustains with child who is not paying attention	07 03 12	15 16 17	02 09 -02	-07 06 -19	-02 48 -24
22. Teacher sustains student if she gets an incorrect response	18 26 15	05 35 -17	08 24 02	19 04 35	30 42 24
23. Teacher uses special techniques to teach language arts	19 -18 44	15 -13 36	14 -26 37	10 -13 29	05 -34 18
24. Limits use of kids at board in some way	-02 10 -13	00 28 -26	-09 -07 -12	-04 12 -21	-05 26 -29
25. Use of game type activities to teach L.A.	-17 -26 -11	-16 -19 -14	-16 -41 -05	-30 -31 -30	-31 -41 -33

Table 6, cont'd.

		WK	WD	R	AC	AR
26.	Belief that cause for reading failure lies in child	-23 -52 -05	-23 -40 -11	-25 03 -38	-11 00 -18	-05 -15 -05
27.	Use of non-book materials to teach reading	-31 -32 -33	-26 -26 -28	-05 29 -32	-12 24 -60	-33 27 -53
28.	Teacher arranges student activities which do not require direct supervision	14 -29 41	31 32 32	25 -04 37	27 28 29	31 65 26
29.	Use of TV shows	-03 12 -26	09 26 -13	-12 17 -27	-07 16 -40	02 47 -30
30.	Use of patterned turns in reading group	04 18 -10	26 52 02	-22 04 -38	-06 20 -35	09 55 -13
31.	High use of spelling bees	13 -13 34	10 16 06	27 16 34	03 14 -06	-11 06 -12
32.	Teacher bases judgment of innovations on their social-emotional effects on students	27 03 54	34 25 52	31 10 42	11 13 18	01 -11 18
33.	Problems with rapport stem from child	25 13 42	10 08 18	45 33 55	14 25 11	-09 09 -09
34.	Teacher mentions concern with social-emotional needs of Mexican-American children	-20 -52 02	06 -42 47	-07 -24 02	02 -13 17	03 -36 22
35.	Positive attitudes toward TV	15 13 -02	47 31 55	05 38 -02	-05 14 -42	12 36 -19
36.	Judges disadvantages of innovations by their effects on students rather than herself	16 04 13	20 19 12	27 41 33	39 38 34	41 27 42
37.	Reaction to AISD curriculum changes was change in teaching	12 38 -06	33 49 23	16 33 16	38 49 30	11 20 16
38.	Teacher names different ways to plan lessons (subject, unit, time)	17 -22 44	06 -26 26	27 -10 47	09 -10 26	18 20 16

Table 6, cont'd.

	WK	WD	R	AC	AR
39. Does not publicize test scores	-09 27 -33	-03 -08 -02	-28 -21 -33	-33 -51 -20	-25 -71 -12
40. Believes that understanding is more important than confidence in teaching a curriculum	-15 15 -43	-06 -01 -16	-32 15 -57	-08 18 -36	-07 31 -34
41. Uses a humanistic approach; tries to see child's side	-05 -25 10	-13 04 -22	-03 -27 06	00 -09 11	09 -22 27
42. Punishment: use of nonpunitive techniques instead of isolation or loss of privilege	-11 -33 16	00 -13 30	10 -10 16	03 15 06	-02 -06 12
43. Teacher involves kids in determining classroom rules	08 -26 24	02 -16 09	04 -10 16	23 09 32	12 -31 24
44. Most common discipline problem is noise, not children's disrespect	20 -01 31	30 04 46	46 30 57	19 12 22	10 -02 19

For each set of three coefficients, the top (centered) coefficient is for the entire sample, the coefficient at the lower left is for teachers of low SES students, and the coefficient at the lower right is for teachers of high SES students.

Probability values are indicated by underlining. $p > .10$ where no line appears; $.10 > p > .05$ where one line appears; and $p < .05$ where two lines appear.