

EFFECTS OF THREE CONFERENCING PROCEDURES
ON THE ACADEMIC PRODUCTIVITY OF LD
AND NLD ADOLESCENTS

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The University of Kansas Institute for Research in Learning Disabilities is supported by a contract (#300-77-0494) with the Bureau of Education for the Handicapped, Department of Health, Education, and Welfare, U. S. Office of Education, through Title VI-G of Public Law 91-230. The University of Kansas Institute, a joint research effort involving the Department of Special Education and the Bureau of Child Research, has specified the learning disabled adolescent and young adult as the target population. The major responsibility of the Institute is to develop effective means of identifying learning disabled populations at the secondary level and to construct interventions that will have an effect upon school performance and life adjustment. Many areas of research have been designed to study the problems of LD adolescents and young adults in both school and non-school settings (e.g., employment, juvenile justice, military, etc.)

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COOPERATING AGENCIES

Were it not for the cooperation of many agencies in the public and private sector, the research efforts of The University of Kansas Institute for Research in Learning Disabilities could not be conducted. The Institute has maintained an on-going dialogue with participating school districts and agencies to give focus to the research questions and issues that we address as an Institute. We see this dialogue as a means of reducing the gap between research and practice. This communication also allows us to design procedures that: (a) protect the LD adolescent or young adult, (b) disrupt the on-going program as little as possible, and (c) provide appropriate research data.

The majority of our research to this time has been conducted in public school settings in both Kansas and Missouri. School districts in Kansas which have or currently are participating in various studies include: Unified School District USD 384, Blue Valley; USD 500, Kansas City, Kansas; USD 469, Lansing; USD 497, Lawrence; USD 453, Leavenworth; USD 233, Olathe; USD 305, Salina; USD 450, Shawnee Heights; USD 512, Shawnee Mission; USD 464, Tonganoxie; USD 202, Turner; and USD 501, Topeka. Studies are also being conducted in several school districts in Missouri, including Center School District, Kansas City, Missouri; the New School for Human Education, Kansas City, Missouri; the Kansas City, Missouri School District; the Raytown, Missouri School District; and the School District of St. Joseph, St. Joseph, Missouri. Other participating districts include: Delta County, Colorado School District; Montrose County, Colorado School District; Elkhart Community Schools, Elkhart, Indiana; and Beaverton School District, Beaverton, Oregon. Many Child Service Demonstration Centers throughout the country have also contributed to our efforts.

Agencies currently participating in research in the juvenile justice system are the Overland Park, Kansas Youth Diversion Project, and the Douglas, Johnson, Leavenworth, and Sedgwick County, Kansas Juvenile Courts. Other agencies which have participated in out-of-school studies are: Penn House and Achievement Place of Lawrence, Kansas; Kansas State Industrial Reformatory, Hutchinson, Kansas; the U. S. Military; and Job Corps. Numerous employers in the public and private sector have also aided us with studies in employment.

While the agencies mentioned above allowed us to contact individuals and support our efforts, the cooperation of those individuals--LD adolescents and young adults; parents; professionals in education, the criminal justice system, the business community, and the military--have provided the valuable data for our research. This information will assist us in our research endeavors that have the potential of yielding greatest payoff for interventions with the LD adolescent and young adult.

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Abstract

A traditionally recommended teacher conference and two student-parent conference procedures were operationalized and employed in multiple-baseline designs (some with reversals) to assess the effects of conferencing procedures on lesson completion by LD and NLD adolescents in a learning center. Following the teacher conferences, students showed initial increases; however, these were not maintained. Following the parent conferences, student responses showed great variability. Most students showed increases; however, some students decreased their lesson completions after their parents were included in the conference. Overall, both procedures encouraged initial increases in lesson completion, but magnitude of change was minimal; neither produced generalization or maintenance effects.

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Motivating students to perform academic behaviors is a recurring issue in education (Adelman, 1978; Arbur, 1976). When adolescents constitute the target population, motivation can be an even more difficult task due to developmental issues and individual differences (DHEW, 1976; Eichorn, 1972; White, 1973). Finally, students who make up a special education population (e.g., learning disabled, resource room referrals, discipline problems) have even greater needs for sensitive and specialized motivation systems (Dyer, 1978; Homme, 1971).

One procedure traditionally used to motivate students in school is the conference. This model may incorporate any combination of teacher, student, and parent(s) as participants. In addition, behavior modification research methodology has provided the professional educator with the means to empirically validate these classroom interventions. Unfortunately, even though conferencing procedures have received much attention in the professional literature and in spite of the availability of means to empirically validate conferences, the effects of the conference on student behavior remains largely unassessed.

A popular version of the conference model is the parent-teacher conference. Many authors agree that parent-teacher communication is very important to a child's success (Cooke & Apolloni, 1975; Dinkmeyer, 1968; Hymes, 1974), as is parents' ability to deal with the school and their child (Kroth & Simpson, 1977). At the same time, such conferences are found to be stressful to many parents and teachers alike (Gardella, 1975; Hillman & Carlson, 1975; Long, 1976; Rabbitt, 1978; Rathburn, 1978).

In light of this situation, many suggestions have been made to help school personnel improve the parent-teacher conference. Among these are reports recommending particular conference situations (Carlson & Hillman, 1975; Paine, 1978), counseling formats, (McAller, 1978), and the child's presence in the setting (Aiken, 1978; Carberry, 1975; Hogan, 1975). None of these studies operationalize and validate their recommendations, however. Studies that do validate their recommendations, such as a teacher workshop on conferences (Prichard, 1977) and a lengthy teacher inservice implemented via programmed instruction (National Institute for Learning Disabilities, 1977), have measured teacher skill acquisition as the dependent variable while leaving student behavior unassessed. Some reports present criteria for teacher education (Schrank, 1976) and advice on clinical issues in counseling parents (Carkhuff, 1977; Chandler, 1979). In spite of the great number of reports on the conference situation, authors continue to recommend more efficient teacher training (Boger, Ritcher, Paducci & Whitmer, 1978). Until the commonly used procedures are empirically validated, more efficient teacher training will not be forthcoming. In fact, some authors have recommended more methodologically controlled studies to assess the validity of student conferencing to motivate behavior change (Anselmo, 1977; Carlson & Hillman, 1975; Redl & Wattenberg, 1959). Indeed, some research reports have measured effects of conferencing on parent expectations (Wray, 1976), repeat discipline referrals and student attitudes (Carnine, 1979; Duncan, 1969); however, these studies represent a minority; the majority reports on parent conferencing are descriptive and lacking in methodology sufficient to validate recommended procedures.

Similar to parent conferences, student conferences are regarded as an important technique for student motivation (Arbur, 1976). Unfortunately, the literature in this area remains suggestive and without a great deal of controlled

studies. Although writers have specified means for successful conferences in college writing classes (Cauertson, 1977; Fritts, 1976; Gere, 1978; Knapp, 1976), secondary English classes (Ernig, 1960; Hipple, 1973; Schiff, 1978), elementary reading classes (Blackwelder, 1976), and special education settings (Hook, 1965), such reports suffer shortcomings similar to those found in the parent conferencing literature. That is, the majority of the literature on the conference situation does not operationalize the conference procedures and reports that do usually measure the effects of training on the teacher or professional. Thus, the effects of the conference itself are not validated by measurement of changes in student behaviors. Such limitations are of particular importance for student populations demonstrating special educational needs or presenting confounding variables as in the case of adolescents.

The purpose of this study was to operationalize popular recommendations for conference situations and empirically validate their effectiveness in increasing students' academic performance in an adolescent population including learning disabled (LD) and non-learning disabled (NLD) students.

Methods

Subjects

Ten adolescents enrolled in an experimental high school in Kansas City, Missouri served as subjects. All students were enrolled because of their histories of noncompliance in the home and at school; subjects were described as nonfunctional in their previous academic settings. This group of ten students included seven LD and three NLD students (three females, seven males). Students ranged in age from 14.7 to 18.7 years and represented a broad range of socio-economic backgrounds.

The LD students were administered the Woodcock-Johnson Psycho-Educational Battery and the vocabulary and block design subtests of the WISC-R or WAIS¹

(depending on the student's age). Results from these tests plus information regarding the student's educational history, family history and any evidence of physical or sensory handicaps, or cultural, emotional, environmental or economic deprivation were given to a Validation Team. The Validation Team was composed of four members: two school psychologists and two certified LD teachers at the secondary level. After reviewing the data provided, team members independently voted on each student's case. In order to classify a student as learning disabled, three of the four members had to vote affirmatively that a student was learning disabled.² The LD students' prorated IQ scores ranged from 88 to 117 with a mean of 102. Their reading achievement percentile scores ranged from 18 to 96 with a mean of 40. Math achievement percentile scores ranged from 6 to 56 with a mean of 23; writing achievement percentile scores ranged from 8 to 46 with a mean of 20.

Prorated IQ scores of the NLD students ranged from 88 to 117 with a mean of 105. Their reading achievement percentile scores ranged from 41 to 75 with a mean of 60. Math achievement percentile scores ranged from 17 to 59 with a mean of 44, while writing achievement percentile scores ranged from 22 to 75 with a mean of 41.

Setting

The study took place at the New School for Human Education (NSHE), Kansas City, Missouri. The school is a non-profit organization established in 1975 to meet the special needs of adolescents who do not fit into "traditional" educational settings. The school is operated by a Master's level guidance counselor. The governing body is a 15-member Board of Directors comprised of lay persons from the community, NSHE students, parents, professional educators, and certified psychologists. A small staff of graduate students provide tutoring services on a rotation schedule. The curriculum combines an ongoing counseling program with systematic presentation of academic learning materials using a self-directed, individualized approach.

The study was conducted in an open classroom at the school. Students were allowed to enter or leave the classroom at their discretion at any time of the day. The large room was equipped with long tables, chairs, several couches, and separate writing cubicles. This informal and comfortable learning setting accommodated as many as 20 students and 5 staff members at one time.

Measurement Systems

Dependent variables. Programmed self-instructional materials in the basic skill areas, reading, writing, and math, were used to provide an educationally relevant dependent variable to assess the number of lessons completed by each student. Lessons were arranged in such a fashion that a student began at lesson 1A, and contingent on a score of 90% correct, the student proceeded to lesson 2A. If a student failed to achieve 90% correct on any lesson (1A), he/she had to then complete the following lesson (1B) in the same series. This self-instructional material allowed students to work at their own speed and eliminated competition with other students.

In order to assess the number of self-instructional lessons each student completed per day in the learning setting, a permanent-product system of data collection was employed. Upon completion of an assignment, the student self-graded the lesson, recorded it, and placed it in a pick-up basket to be reviewed and recorded by a staff member. The student then reviewed the graded work and placed it in his or her notebook. A student's lesson was considered completed when it passed through the above sequence and was secured in his/her notebook. On a weekly basis, an observer would count the number of completed lessons in the three academic areas of reading, writing, and math in each student's workbook. These data were recorded on a recording sheet and graph.

Reliability of permanent-product measurement was achieved by having a second observer count the number of lessons completed by each student in each

academic area each school day. The observers' records were compared for occurrence reliability only. An agreement was scored when the two observers scored the same number of lessons completed in a given academic area for a given day. Percent of agreement was calculated by dividing the number of agreements by the total number of days in which lessons were completed in the given academic area. The observers agreed on 200 instances out of 205 opportunities for agreement, for a total percentage of agreement of 98%.

Independent variables. To insure the systematic delivery of teacher-student conferences, a checklist was developed and followed by the staff member (See Appendix A for sample Teacher Checklist). A trained staff member observed at least 10% of each teacher's conferences and rated that conference on a checklist (See Appendix B for an Observer's Checklist). Observations revealed that staff members followed the prescribed conference protocol in 100% of the observed conferences.

To insure systematic delivery of parent-student-teacher conferences, a checklist was developed and followed by the staff members (See Appendix C for a sample Family Meeting Checklist). Due to dictates of confidentiality, these conferences were not observed by an outside observer. The primary investigator conducted all conferences and the checklist procedures were followed during all the conferences.

To insure that praise was delivered in the home in an appropriate fashion, parents were trained in the use of praise as a reward for school attendance and lessons completed (See Appendix D for a sample Praise Checklist). To measure their use of praise, parents were asked to indicate in writing on the Parent Feedback Sheet whether or not praise had been delivered (See Appendix E for sample Parent Feedback Sheet). The Student Feedback Sheet was used to communicate the student's attendance and lessons completed per day (See Appendix F for sample Student Feedback Sheet).

Experimental Procedures

The effectiveness of the three procedures designed to increase the number of lessons completed per day was studied. The three procedures were: teacher-student conferences; parent-student-teacher conferences combined with weekly feedback; and parent-student-teacher conferences combined with feedback and backup reinforcers.

Teacher-Student Conferences. The first procedure studied was a teacher-student conference (hereafter teacher conference). This procedure was implemented with all subjects in the study. By necessity of the setting, some students received teacher conferences on a regularly scheduled basis ranging from every 5 to every 11 days. Other students received teacher conferences on a random, unscheduled basis. Thus, the intent was to closely approximate circumstances for teacher conferences in regular classrooms and to allow for some comparisons to be made of any possible differences between conference sequences. To control for the possibility of a particular staff member being more effective in teacher conferencing than others, teacher conferences were conducted by five staff members paired with students on a random basis.

Each conference was held in the same manner: a staff teacher either initiated the conference or, while engaged in a conversation with the student, asked the student to share his/her work. The Teacher Conference Checklist was followed during each meeting. Upon perusal of the student's work, the staff member: a) recorded the student's name, the date and time; b) determined if the student's personal recording was current; c) provided corrective feedback (on any lessons completed); d) praised the student for completed lessons; e) encouraged the student to do more work; and f) completed the Teacher Checklist. Randomly selected teachers were instructed to encourage students to work in a particular academic area while other students were encouraged to work in all

academic areas. All conferences, which took place in the learning setting, were somewhat public in nature due to the "open" setting.

Parent-Student-Teacher Conferences. This type of conference was scheduled in the same manner as the teacher conferences. That is, some conferences were held regularly, with the interval between meetings ranging from 5 to 12 days. Other meetings occurred randomly as the need arose.

Parent-student-teacher meetings (hereafter parent conferences) were conducted by one staff member. All parent conferences took place in a separate counseling room to ensure confidentiality. During these meetings, the staff member followed a checklist that operationalized recommended and accepted practices of parent conferencing (Bailard & Strang, 1964; Bond, 1973; Bradley, 1971; and Heffernan & Todd, 1969). That is, the teacher greeted the participants; made a positive statement about the student; discussed the participants' concerns; discussed the student's strengths and weaknesses; discussed and showed his/her work; invited and listened to feedback from the participants; discussed areas for improvement; summarized the conference; and invited the participants to make future contacts.

Two procedures were used in combination with parent conferences: feedback and feedback-plus-backups. For the feedback procedure, the staff member recommended a feedback system to inform parents of a student's continued success. This procedure took the form of a standardized letter that included the amount of time a student spent in the learning setting, and the numbers of assignments the student had completed during a particular reporting period. Feedback sheets were sent home with the on a students weekly basis. Parents were asked to praise their son/daughter when they received each feedback sheet. During the initial conferences, parents were instructed in the use of praise as a reinforcer for academic work. A checklist was completed by the staff member to insure systematic presentation of the parent training.

A second procedure incorporating feedback and backup reinforcers was used in conjunction with parent conferences for selected students. For this procedure, weekly feedback and parental praise were continued. In addition, points were awarded for attendance and lesson completion; points were redeemable for special privileges or rewards provided by the parents (e.g., money, pizza, record albums, use of the family car). Privileges available in the home were delivered by the parents contingent on feedback from school. Some students received money (provided by the parents) delivered by a staff member in the school setting.

Experimental Design-Overview

Four designs were used to assess the effectiveness of the treatment procedures. At the beginning of baseline for all four designs, all students were, as a group, taught the use of the self-instructional packages in writing, math, and reading. The following training sequence was employed: a model was presented for the use of the materials, students were allowed practice in lesson completion and the self-grading aspects of the packages, and corrective feedback was provided. The students were encouraged to work at their own speed. Students were provided no other encouragement to complete work during baseline. A description of the four designs employed and the results obtained from each follow.

Study I

Experimental Design

A reversal design was employed to assess the effects of teacher conferences and parent conferences with feedback on the total number of lessons completed per school day by one non-LD student, Mike. During baseline, Mike's total number of lessons completed each day was monitored without intervention. Following a stable baseline, the teacher conference condition was introduced. In this condition, a sequence of teacher conferences was held with the student

on a regular basis. No attempts were made to target specific academic areas. Following a period of stable behavior, the teacher announced to the student that the conferences were going to be discontinued. A reversal to baseline was then in effect. Following a period of stable return to baseline levels, a second treatment sequence of parent conferences was implemented. This conference sequence, which employed a feedback component, was delivered on a regular basis. Following a period of stable behaviors, the teacher announced to the student that the parent conferences with feedback were to be discontinued. Thus, a second return to baseline was in effect.

Results

Figure 1 shows the effects of teacher conferences and parent conferences (with home feedback) on the total number of lessons completed per day by Mike. Teacher conferences produced a slight increase in the number of math lessons completed over baseline data; however, the behavior was not maintained. During the last six days of this condition, the student did not complete any lessons. When the conferences were terminated, this trend continued. Following the first reversal, parent conferences with feedback produced a slight increase in the number of lessons completed in all three academic areas per school day. Similar to the teacher conference, the parent conference produced a slight change in productivity; however, the increase was not as great as the increase produced by the teacher conference. The discontinuation of parent conferences resulted in a period in which no lessons were completed.

Study II

Experimental Design

A multiple-baseline design across two pairs of students was used to assess the effects of the three conference procedures: teacher conferences, parent conferences with feedback, and parent conferences combining feedback and backup

contingencies. Both pairs of students received teacher conferences and parent conferences with feedback, but only the second pair (Don and Dick) received a backup contingency of home-based reinforcers.

During baseline, all subjects' academic productivity was monitored without intervention. Bill, an LD student in Pair 1, received teacher conferences while Gail (a NLD student) remained in baseline. Following a period of stable data, a sequence of teacher conferences was initiated with Gail. Bill received parent conferences (feedback only) while Gail remained in the teacher conference condition. Finally, Gail received parent conferences. Thus, a multiple-baseline design was used to assess the effects of teacher conferences and parent teacher conferences (with feedback) on these two students.

A second pair of students, Don and Dick (both LD students in Pair 2), received the same treatment conditions as above in a multiple-baseline design. One additional condition, parent conference with feedback and backups, was also delivered at the end, first to Don and then to Dick. Thus, comparisons could be made between the two pairs of students and the three treatment conditions.

Results

Figure 2 shows the effects of teacher and parent conferences on the first pair of students, Bill and Gail. Teacher conferences had an immediate but slight effect on the number of lessons completed by Bill and Gail. Three out of four conferences produced immediate but not lasting increases in Bill's behavior. All three conferences produced initial increases in Gail, but similar to Bill, these increases did not maintain. During the parent conference condition (feedback only), Bill's productivity remained close to zero; he completed only three lessons during that condition. During the parent conference condition, Gail's productivity increased to an average of one lesson per day.

Figure 3 shows the effects of teacher conferences and two parent conference conditions (feedback and backup contingencies) on Don and Dick. Following delivery of the teacher conference condition, both students showed an initial change with gradual increases. As the conference sequence progressed, however, their lesson completion declined to zero. The parent conference condition with feedback for Don produced no change; however, when backup contingencies were implemented, Don showed stable lesson completion averaging two lessons per day for 15 days. Dick showed initial and increasing productivity during parent conferences with feedback. When backup contingencies were delivered, Dick stopped working for one week. Even though he began working again after a subsequent parent conference, he failed to meet the criterion for receiving the backup reinforcers each day.

Study III

Experimental Design

In Study III, a multiple-baseline design across academic areas with a reversal condition was employed to assess the effects of teacher conferences on the number of lessons completed by a student, Sue (an LD student), each day in teacher-specified academic areas: writing, math, and reading. No parent figures were available to participate in parent conferences with Sue.

During baseline, the number of lessons completed each day were monitored without intervention. During the first teacher conference, the academic area targeted for change was math. At this conference, the student was encouraged by the conferencing teacher to complete math lessons. Following stabilized behavior, the teacher targeted writing as the subject of intervention. Once the student stabilized in this area, writing and math were combined as the targets for the conference intervention. After stabilization of behavior in this condition, the teacher added reading to the other academic areas as the targets for

intervention. A reversal to baseline was affected by the teacher's announcement to the student that the conferences were to be discontinued.

Results

Figure 4 shows the effects of teacher conferences across three academic areas combined with a reversal condition. During baseline, the number of lessons completed each day by Sue was zero. During the teacher conference condition specifying math, each conference was directly followed by a slight increase in the number of lessons completed in math. In spite of these initial increases in lesson completion, the number dropped to zero just prior to the next conference. After the math conference condition had stabilized, writing was targeted during a teacher conference; only one writing lesson was completed. In the writing and math condition slight increases were noted in both academic areas, however, they were not maintained. A third conference intervention targeting writing, math, and reading was implemented to encourage increases in all three academic areas prior to the end of the semester. On the day of this conference, a sharp increase in lesson completion was noted; however, no lessons were completed the following day. A reversal-to-baseline condition was affected by the discontinuation of the teacher conference, and lesson completion gradually decreased to zero.

Study IV

Experimental Design

Four single-subject multiple-baseline designs across academic areas were employed to assess the impact of teacher conferences and parent conferences on the number of lessons completed by four students in specified academic areas.

For the first LD student, Larry, the number of lessons completed was monitored without intervention during baseline. Following a stable baseline, Larry received a sequence of teacher conferences to increase academic productivity. No attempts were made to specify academic areas. Following a

period of no change, a parent conference sequence (feedback only) was instituted; the conference topic was writing. The other academic areas remained in baseline. Following a period of stable behaviors in the writing area, the emphasis of the next parent conference was on a second academic area, math. The final academic area remained in baseline. After the student's behavior stabilized in the second targeted area, the final academic area (reading) was specified. Thus, a multiple-baseline design across academic areas was employed to assess the effects of parent conference (feedback only) to increase lesson completion in particular academic areas.

A second multiple-baseline design, similar to that used with Larry, was used with Jason (LD student). In this design, specific academic areas were targeted in teacher conferences rather than parent conferences. A third multiple-baseline design was used with Dan (also an LD student). Particular academic areas were specified during both types of parent conference conditions: feedback and feedback-plus-backup contingencies. Finally, a fourth multiple-baseline design was used with Laura (a NLD student), in which specific academic areas were targeted during teacher conferences only.

Results

Figures 5, 6, 7, and 8 show the effects of the various treatment conditions. During the teacher conference condition, no increases were noted in either Larry (Figure 5) or Dan's (Figure 6) lesson completion. Jason (Figure 6) and Laura (Figure 8) both responded to teacher conferences, and when different academic areas were targeted, they completed lessons in those areas. For Jason, the effects appeared to be fleeting, however, more stable effects resulted with Laura.

During parent conferences, Larry, Jason, and Dan all exhibited some lesson completion corresponding to parent conferences. Dan and Larry both responded to targeted academic areas as well.

Results/Overview

The total average number of lessons completed daily during each condition for LD and NLD subjects was calculated by adding the number of lessons completed by all students during a particular condition and dividing it by the number of days and the number of students in the condition. The data are shown in Table 1. During baseline, students in both groups (LD and NLD) were completing an average of .1 lessons per school day. During the teacher conference condition, LD students completed an average of .5 lessons per day while their NLD peers completed an average of one lesson per school day. During the parent conference conditions, the LD students completed an average of .6 lessons per day, while their NLD peers completed an average of one lesson per school day.

Discussion

This study attempted to operationalize two traditionally used conference situations and to validate their effectiveness was made with LD and NLD adolescent populations. Recommendations from Arbur (1976), Bailard and Strang (1964), Fritts (1976), Heffernan and Todd (1969), and Schiff (1978) were incorporated in a teacher conference protocol. The parent conference sequence included traditional procedures recommended (Bond, 1973; Bradley, 1971) as well as more recent suggestions made by advocates of behavior modification (Schumaker, Hovell, & Sherman, 1977). Although a great many articles report the desirability of using such procedures, few have empirically substantiated their claims with an LD adolescent population.

The results demonstrated that both conference situations produced immediate but slight increases in the number of lessons completed by LD and NLD students in a school day. Student responses to a particular treatment sequence varied greatly. Although most showed increases, some did not. In all but two students, teacher conferences were effective in increasing initial responses, but only on

an intermittent basis, usually immediately following the conference day. The parent conference produced even greater variability in student response. For example, two students did not show desirable increases until a backup reinforcement contingency was added to the parent conference; two other students showed decreases in lesson completion following the introduction of parent participation.

None of the conference situations produced behavior change that was maintained over an extended period of time. The parent conference with home-based feedback had the most consistent effect on increased responding; however, backup reinforcers were implemented with two students when parent conference with feedback failed to increase lesson completion. Although backup reinforcers appeared to initiate and maintain some increases, such increases were not substantial and were difficult to preserve.

Teacher conferences were effective in producing initial increases as demonstrated in their application across students and academic areas. Therefore, when the work of a student receiving teacher conferences was compared to a student who was not receiving teacher conferences, the student receiving conferences was found to complete more work. Furthermore, the increases in lesson completion did not occur until the student received teacher conferences. Similarly, when the focus of the teacher conference shifted from one area to another, the conference effect in those areas was reflected by an increase in lesson completion.

Teacher and parent conferences were instrumental in promoting more lesson completion when compared to baseline conditions for both LD and NLD students. The NLD students completed twice as many lessons as the LD students, regardless of the type of motivation procedures in effect. These results may indicate a differential effect of motivation procedures on LD versus NLD students. Nevertheless, such a conclusion must be considered tentative due to the small size of the LD and NLD samples in this study.

The magnitude of the increases in lesson completion is also a significant issue. Although an increase was obtained from one lesson every 10 days in baseline to one lesson per day (for NLD students) or one lesson every two days (for LD students) during treatment, one might question the significance of this increase. Most educators have greater expectations for students' productivity than one 30-minute lesson completed per day. Again, the cost effectiveness of this procedure is at issue due to the requirements the procedure places on teachers' and parents' time in exchange for very little gain.

Several implications that can be drawn from this study. The effects of conferencing with teenagers are not very predictable and may not be maintained for longer than a few days. Given the amount of teacher and parent time and effort needed to implement either of these conference procedures, the cost benefit ratio is very low. Thus, one might question their use at all. Second, it appears that some teenagers become desensitized to historically effective reinforcers delivered by adult figures. Indeed, verbal stimuli from adults designed to increase an adolescent's compliance may not always produce a predictable or desirable result. Furthermore, the use of tangible rewards, such as money, fail to produce desirable increases in academic behavior that are maintained. Thus, this study suggests a need for research to isolate the variables that serve as reinforcers for teenagers who can self-deliver many of these reinforcers in their environment. Because certain developmental factors in adolescence appear to confound procedures found effective with other populations, there may be a need for treatment procedures that transfer stimulus control of behavior from the adult to the student.

Third, none of the conference procedures investigated produced behavior generalization to other academic areas. The increases observed were situationally specific to the conference targeted areas. A motivational procedure that programs

generalization to other academic areas would be a desirable goal for future research efforts. Thus, the results of this study suggest the need for a motivational procedure designed to increase academic behaviors of adolescents. Such a technique must not rely on traditional adult-delivered conference contingencies but should incorporate reinforcement contingencies under the control of the teenager. Finally, such a procedure should strive to program behavior generalization to other academic areas.

Footnotes

¹Due to time constraints, only two subtests of the WISC-R/WAIS were administered to the students: the Vocabulary and Block Design Subtests. These subtests were chosen because the scores resulting from combining them are highly correlated ($r = .91$) with the total test score (Sattler, 1974). To provide an estimate of each student's full scale IQ, the Vocabulary and Block Design scaled scores were combined and an estimate was made according to a procedure recommended by Tollegen and Briggs (1967). Tollegen and Briggs have identified shortcomings of both simple prorating and regression procedures for estimating fullrate IQ. They recommended, instead, the calculation of a deviation quotient ($\bar{x} = 100$, $SD = 15$) which takes into consideration the number of subtests administered, the correlations between those subtests, and the total number of scaled score points obtained by the student. Their recommendations were followed in this study to obtain an estimated IQ score for each student.

²For more information regarding the Validation Team procedures see Schumaker, Warner, Deshler, and Alley, 1980.

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FIGURE 1

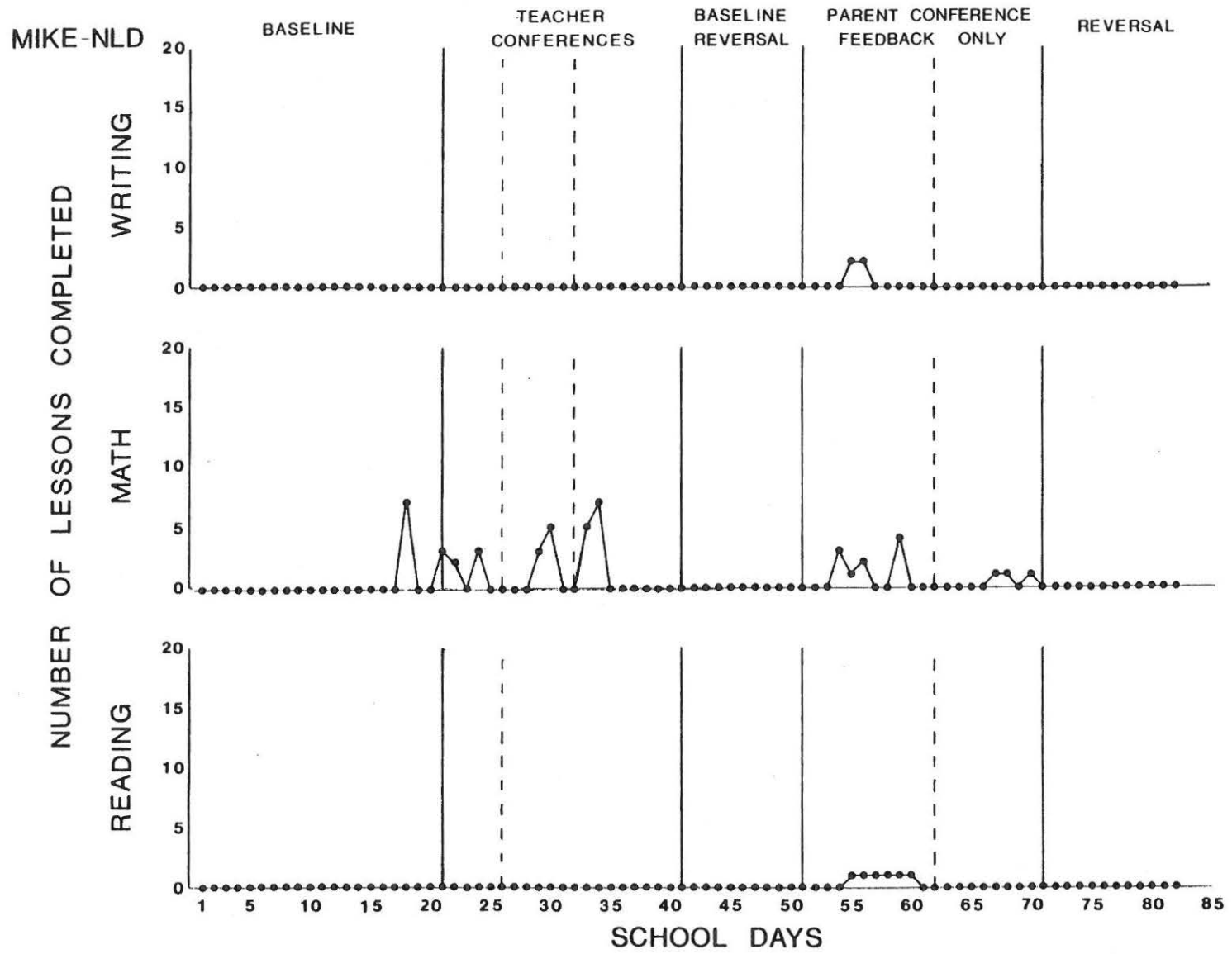


FIGURE 2

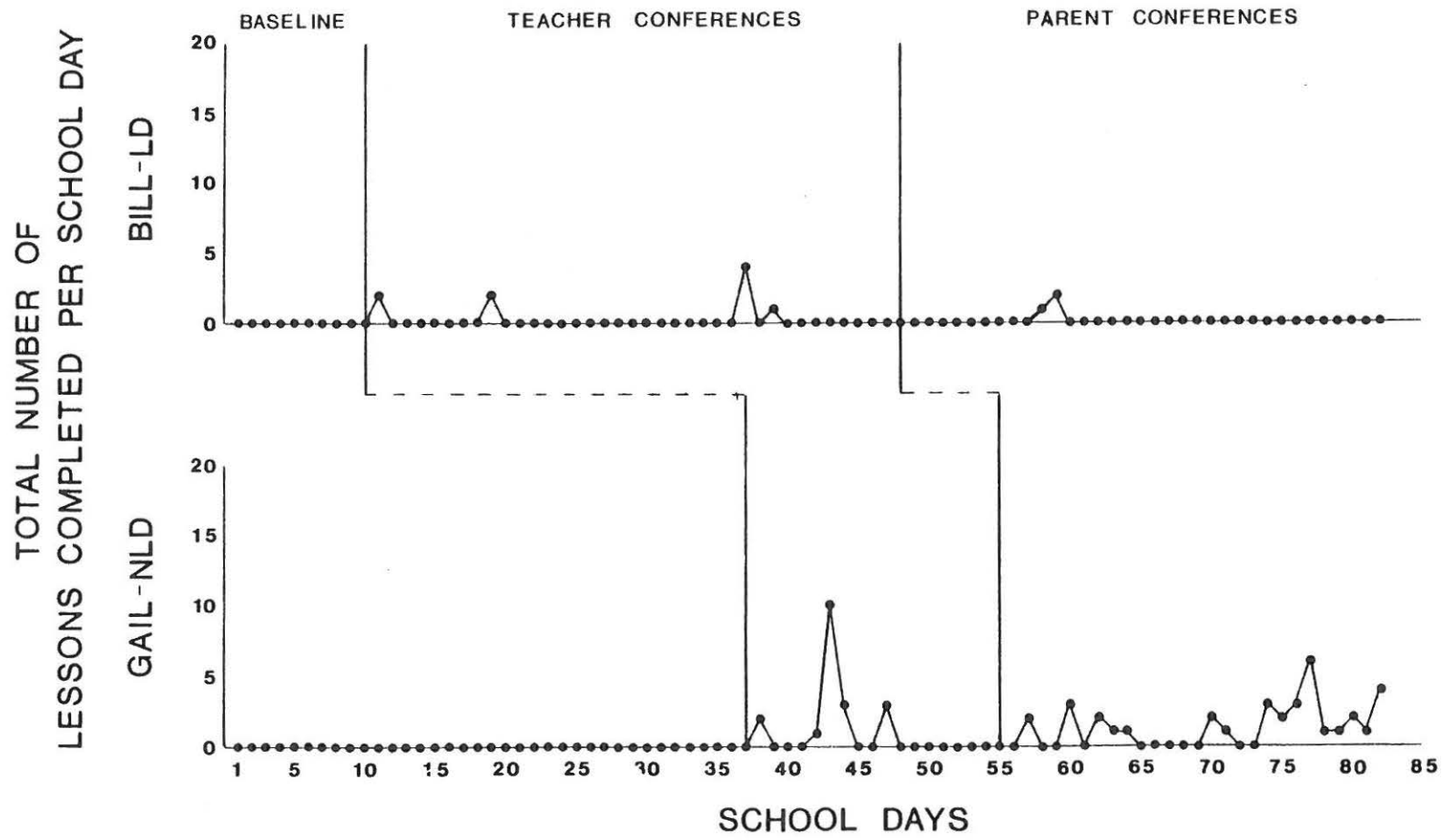


FIGURE 3

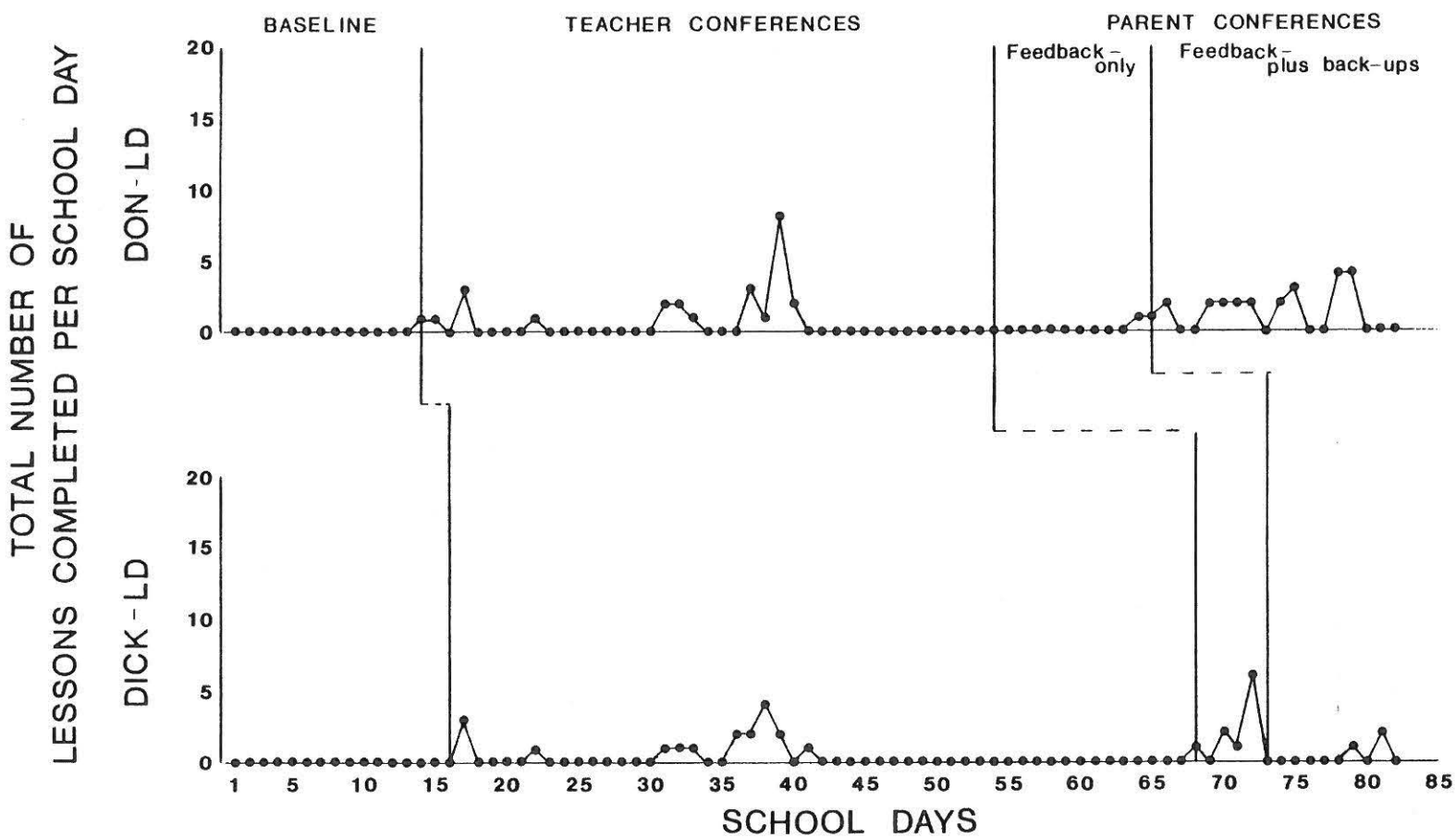
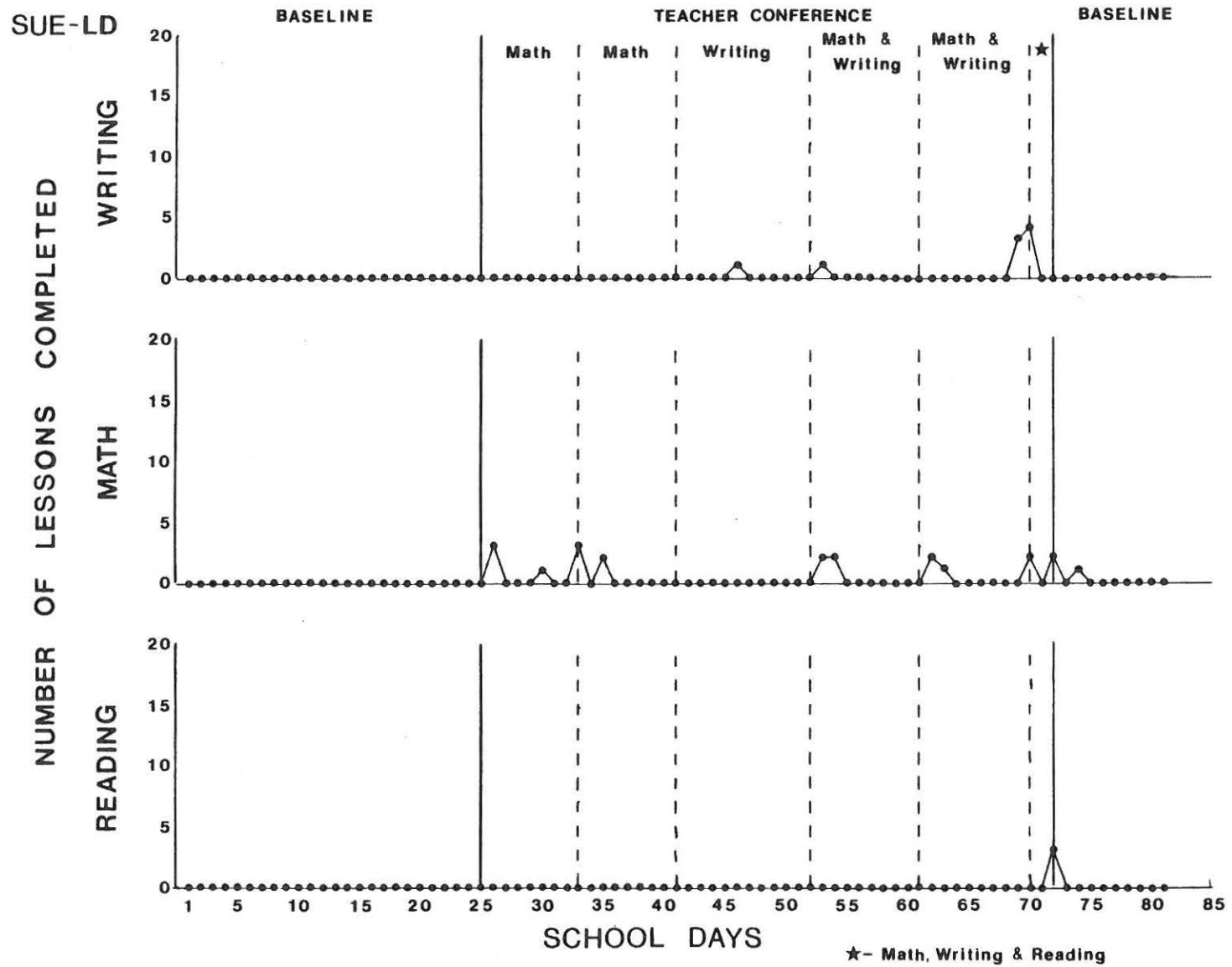


FIGURE 4



LARRY-LD

NUMBER OF LESSONS COMPLETED

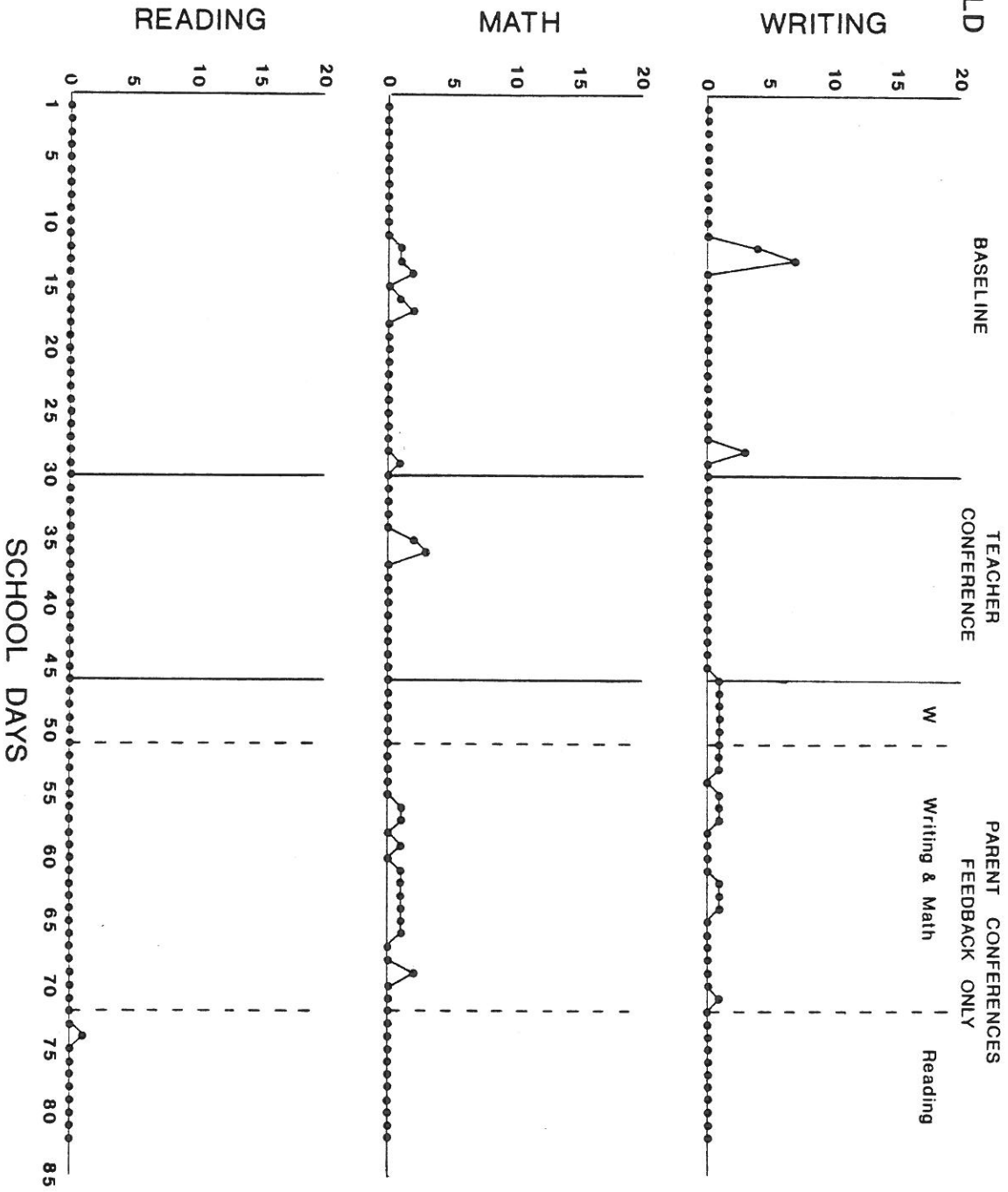


FIGURE 5

FIGURE 6

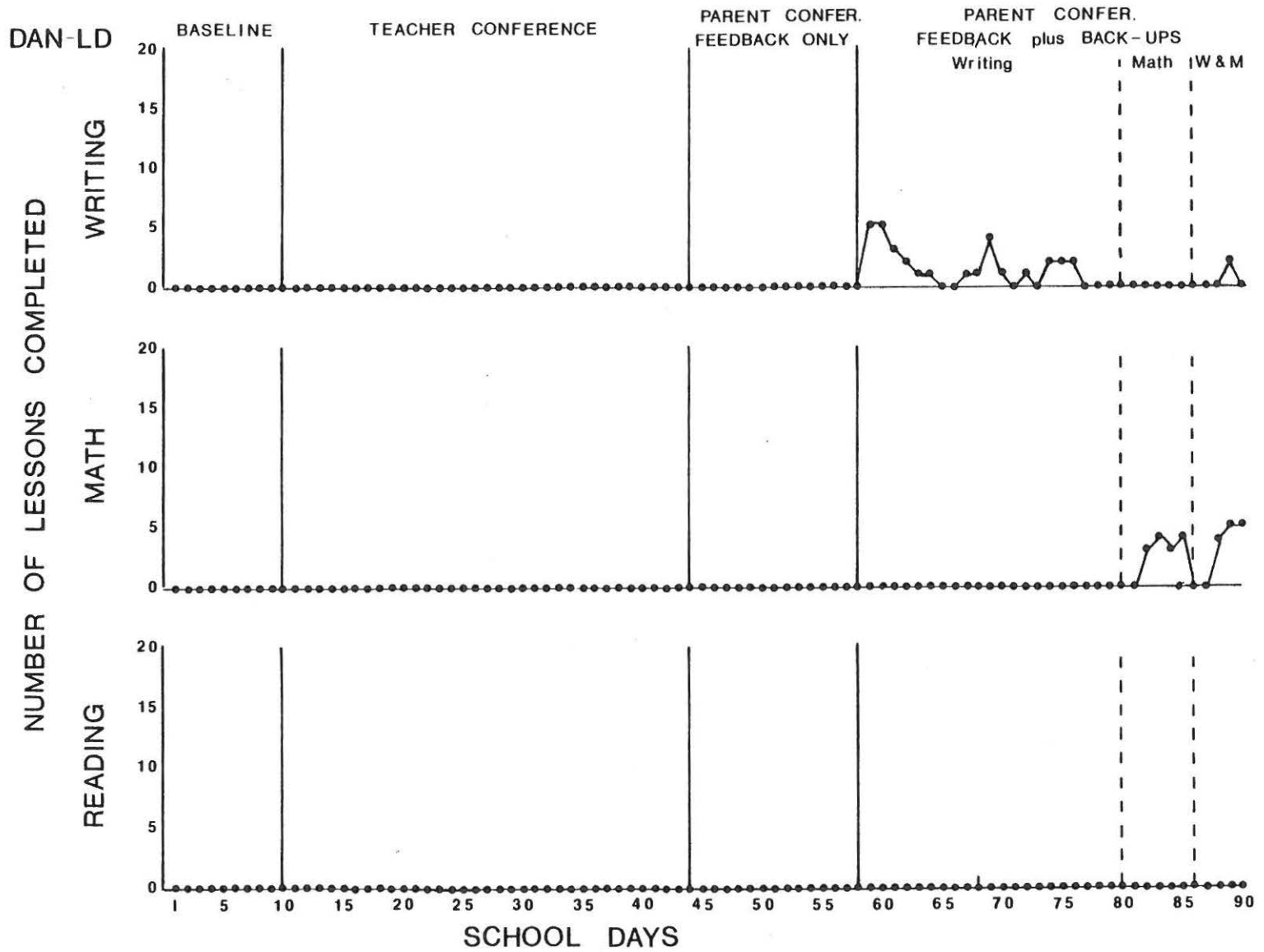


FIGURE 7

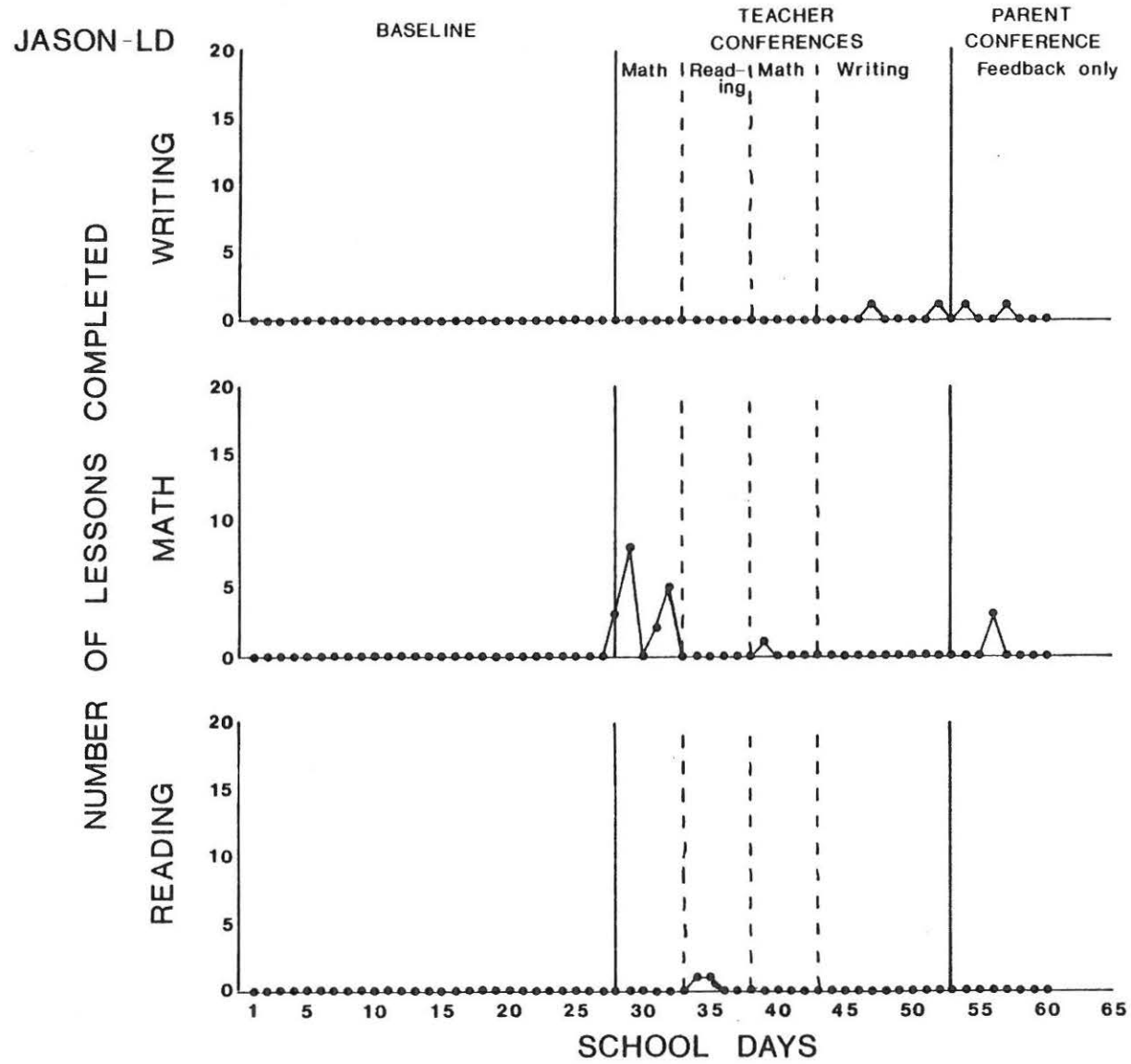


FIGURE 8

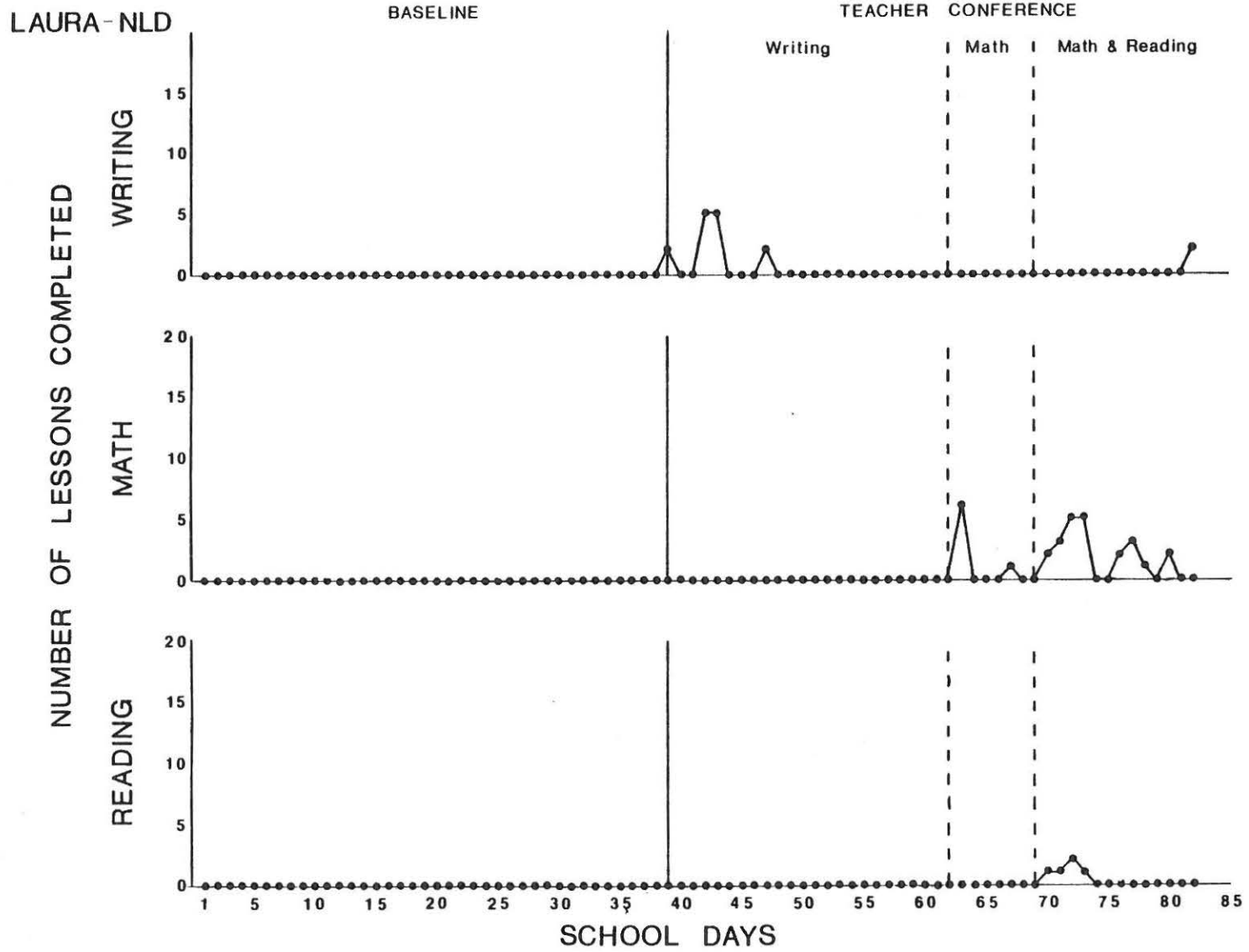


TABLE 1
AVERAGE NUMBER OF LESSONS
COMPLETED DURING EACH CONDITION
PER STUDENT PER DAY

	BASELINE	TEACHER CONF.	PARENT CONF.
LD	.14	.52	.57
NLD	.11	1.03	.96

APPENDICES

TEACHER CHECKLIST

Each time you meet with a student complete the following items:

Student: _____

Staff: _____

Date: _____

Time: _____

STUDENT WORKBOOK

	<u>Yes</u>	<u>No</u>
1. Are graphs current?	_____	_____
2. Are journal entries current?	_____	_____
3. Was he/she prepared?	_____	_____
4. Activity shared with student: _____		

OBSERVER CHECKLIST

Each time you observe a teacher meeting with a student, complete the following items:

Student: _____

Staff: _____

Date: _____

Time: _____

	<u>Yes</u>	<u>No</u>
1. Did the teacher determine if the student was prepared for the meeting?	_____	_____
2. Did the teacher determine if the student's graphs were current?	_____	_____
3. Did the teacher praise the student for work completed?	_____	_____
4. Did the teacher provide corrective feedback?	_____	_____
5. Did the teacher encourage this student to do more work?	_____	_____

Comments:

Initial Inquiry

- _____ 1. Teacher thanks the parties for coming in together.
- _____ 2. Teacher inquires about existing problems (making sure that each party speaks).
- _____ 3. Teacher reviews student goals and progress.
- _____ 4. Teacher does not take sides with any party.
- _____ 5. Teacher gives rationales for resolving issues.

Developing Open and Positive Communication

- _____ 6. Teacher asks each party to state what the other party might want.
- _____ 7. Teacher asks what each party wants (prioritize if more than one desire per party).
- _____ 8. Teacher has each party state how difficult it might be for the other party to fulfill the requesting party's desires (building empathy).

Negotiator Feedback

- _____ 9. Teacher makes statements of concern and empathy for all parties.
- _____ 10. Teacher looks for and comments on positive aspects of the parties' relationship.
- _____ 11. Teacher sums up the situation by describing all viewpoints of the concerned parties.
- _____ 12. Teacher does not resolve the issue unilaterally.

Negotiation-Compromise Process

- _____ 13. Teacher asks for a proposal from one party to resolve the issue (this may include an "if . . . then" deal).
- _____ 14. Teacher asks other party for agreement or a counterproposal.
- _____ 15. Teacher asks for agreement again.
- _____ 16. Teacher suggests a compromise if necessary.
- _____ 17. The final proposal requires each party to give something to the other.

Conclusion

- _____ 18. Teacher specifies exactly what has been agreed upon and writes it on the youth's contract.
- _____ 19. Teacher praises the parties on the progress made during the session.

PRAISE CHECKLIST

How to Deliver Praise to Your Child

1. Make eye contact with your child when he/she hands you the feedback sheet.
2. Say something positive about his/her progress.
3. Praise your child for bringing home feedback.
4. Praise your child for time spent at school and lessons completed.
5. Review your arrangements for backup reinforcers if appropriate.
6. Sign feedback sheet and return to school.
7. Don't forget to reward your child for a good job!

PARENT FEEDBACK SHEET

Dear Parent:

To insure you and your child's benefit from our recent counseling meeting, we ask you to return this form completed to New School.

1. I have interacted in a positive way with my son/daughter about his/her participation at New School.

yes no other: _____

2. I have provided _____ as a result of my son/daughter's efforts at New School.

yes no other: _____

3. We need to meet.

yes no other: _____

Again, please return this completed form with your son or daughter.

Thank you,

Gary O. Seabaugh
Director

STUDENT FEEDBACK SHEET

Date

Dear Parent,

This past week, _____ was observed to be present and working in the New School learning room as follows:

Monday	Tuesday	Wednesday	Thursday	Friday

He/she completed the following number of lessons this past week:

	Monday	Tuesday	Wednesday	Thursday	Friday
Writing					
Math					
Reading					

We encourage you to support your teenager's success in school.

Warmest regards,

Gary O. Seabaugh
Director, New School