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I am submitting herewith a dissertation written by Ralph M. Edgar entitled "Contingency Contracting with High School Females to Reduce Absenteeism: Results and Follow-up." I recommend that it be accepted in partial fulfillment of the requirements for the degree of Doctor of Philosophy, with a major in Psychology.

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CONTINGENCY CONTRACTING WITH HIGH SCHOOL
FEMALES TO REDUCE ABSENTEEISM:
RESULTS AND FOLLOW-UP

A Dissertation
Presented for the
Doctor of Philosophy
Degree
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Ralph M. Edgar

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ABSTRACT

A contingency contract with monetary rewards was used to reduce absences for three freshmen and three sophomore females who had high absentee rates. A multiple baseline design with follow-up was used across the six subjects. Three of the students also carried an attendance card for each teacher to initial to indicate attendance. The results showed that four of the six students reduced their absences to a rate lower than the school average. The fifth student reduced her absences by one half during the time the contract was in effect, but the resultant rate remained higher than the school average. The sixth student did not reduce her absences and dropped out of school after 15 days of the intervention period.

Follow-up data showed that one student continued to attend school at higher than baseline rates. The remaining three students returned to baseline rates.

Academic productivity was measured by obtaining the number of assignments given and the number the student completed from two teachers for each student. The results showed that three students produced substantially more during the intervention than they had during the baseline phase.

Questionnaire data relating to the student's interpersonal relationships, attractiveness of their schoolwork, and the quality of their overall day were obtained during the baseline, intervention, and follow-up periods. The results did not show changes in the ratings which coincided with attendance changes.

There were no differences on any of the measures between the students who carried an attendance card and those who did not. The results showed that a contingency contract and brief biweekly meetings were sufficient to reduce absences.

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I. INTRODUCTION

Student absenteeism poses serious problems for school systems. Research to ameliorate excessive absenteeism has taken several courses. The most successful strategy has been the use of contingency contracts (Brooks, 1974a, 1974b, 1975; Morris, 1975). However, there has been a lack of systematic follow-up following the termination of contingency contracts. The purposes of the present study are: (a) to evaluate the effectiveness of a contingency contract on attendance and to determine whether a successful intervention has lasting effects once the contract is terminated, (b) to compare the effectiveness of a contingency contract with a contract plus an attendance card to determine if the card is necessary for a successful intervention, (c) to determine if students will turn in more assignments during the time a contingency contract is in effect, and (d) to determine whether students perceive changes in interpersonal relationships, the attractiveness of their schoolwork, and their overall day as measured by their responses to questionnaire items.

Random polls indicate that members of the National Association of Secondary School Principals considered student absenteeism their leading problem for 1973, 1974, and 1975 (Porwoll, 1977). The educator's concern stems from the loss of money due to reduced average daily attendance as well as the disruption an absence causes for the student and his classmates. Administrators must spend considerable time and energy in counseling and disciplinary actions for truants.

Teachers must spend time giving make-up work and missed tests when the student returns. Parents are faced with the task of attempting to convince the student to return to school. If the parents are unsuccessful in their attempts, they must deal with the school administration or possibly the courts. The community becomes involved when the student is on the streets all day and perhaps becomes a threat to the neighborhood. In severe cases where the school takes legal action, the courts have a problem because there are often no reasonable placements or interventions to offer.

Attendance problems in many states (e.g. Tennessee) are primarily the responsibility of an attendance teacher. Typically the attendance teacher or school secretary calls the student's parents when the student has missed several consecutive days or has accumulated several absences. The phone calls at this point are brief and the parent is asked if the student is sick and when the student might return to school. The attendance teacher may also counsel the students about their absences. When the student's absences become excessive, the attendance teacher contacts the parents and discusses the problem. If the absences continue, the attendance teacher may visit the home. At this point legal action is often mentioned. The parents may be told that the courts will be notified and the parents will have to appear if the student continues to miss school. If the absences continue, the parent may be taken to court and a fine often results.

In some states, including Tennessee, the method of dealing with attendance is changing. The courts no longer will deal with status offenses such as truancy and are shifting final responsibility to the school systems. This being the case it is mandatory that increased efforts be made to find ways to improve attendance and deal with truants.

The magnitude of the attendance problem was pointed out by Porwoll (1977) who reviewed figures from the National Center for Educational Statistics from 1929 to 1976. He concluded that an absentee rate of 8 to 9 percent was common for the past 10 years. The figures included all grades and were not limited to high school students.

Studies have shown that absences are not evenly spread over the week or year. Levanto (1975) and Karweit (1973) found that absences tend to increase in high schools as the year progresses. Levanto found that the absentee rate increases after the third week of school and Karweit found that absentee rates were highest at the end of the year.

Levanto (1975) and Karweit (1973) both found that absences are not evenly spread over the school week. They found that the highest absentee rates were on Mondays and Fridays. Levanto observed that the days preceding holidays were often missed while Karweit found that high absenteeism rates were associated with rainy days.

The literature indicates that high school truancy is viewed in two ways. The first way is to view truancy as a symptom of a more basic school system problem which needs to

be corrected before truancy will abate. The second way is to view truancy as a problem in itself which needs to be intervened with directly. Intervention programs reflect these two views. Comprehensive programs which introduce many changes and offer a variety of new or improved services in the schools treat absenteeism as a symptom. Intervention programs which treat truancy as the primary problem typically use behavioral interventions such as contingency contracting. Counseling interventions may reflect either view and are often a part of both types of programs. Examples of the various intervention strategies are discussed below.

Programs which introduce many changes in a school and provide a variety of services use attendance as an evaluation variable. These additional services are thought to meet the needs of the truant students better than the traditional high school program. The logic is that the truants will attend school more frequently when high school programs are more relevant to their needs. The services may include staff development, paid and non paid work experiences for students, career exploration, tutoring, additional courses, and reading and math labs. Program evaluations typically indicate that attendance did not improve or meet the program objective (Crawford, 1974; Sprengel and Tomey, 1974; and Wharton, 1975). While attendance improvement has been found in such programs (Spinner, 1973) the results are often not dramatic. For example, Wohl (1973) found that a program which focused on potential dropouts significantly reduced absences, but the

students continued to miss an average of 2.5 months per year.

Erickson (1973) described a program which used neighborhood volunteers to acquaint the student's parents with the school rules and expectations. The results indicated a statistically significant reduction in absences for two of the three samples. However, for the two successful groups, the resultant absentee rates remained large, averaging around 21 absences per student per semester.

Individual and group counseling of students has been used to reduce absenteeism. Piercy and Lee (1976) found that individual counseling could reduce absences but not to the level of control students. Grala and McCauley (1976) found that the addition of supportive help in the form of counselor contact with the school and the counselor accompanying the student to school, plus individual counseling can result in short term attendance improvements.

Studies of group counseling effects on attendance showed mixed results. Studies by Hodges (1975) and Murphy (1975) found that group counseling techniques could significantly reduce absences. However Albert (1976), Hunter (1975), Larsen (1976) and Weybright (1977) found that group counseling did not improve attendance.

Noonan and Thibeault (1974) used a peer reinforcement system to improve attendance for elementary and high school aged students. Their results suggested that positive comments from peers may reduce absences for both age groups. The improvement continued during the two month follow-up

period. However no measure was made of the positive comments made by the peer reinforcers to the target during follow-up. It was possible that peer reinforcers continued to make positive comments and the follow-up period was simply an extension of the intervention.

Alexander, Corbett and Smigel (1976) used monetary rewards to improve attendance. They showed that predelinquent adolescents improved their attendance when given one dollar for attending every class for a day. The students also had daily meetings with a contingency manager and had their attendance publicly charted. The study showed that additional increases in attendance were possible using group contingencies; money was made contingent on perfect attendance for a day for all seven students. The authors concluded that group contingencies were more effective than individual contingencies in reducing absences.

Most applicable to the present study were the articles dealing with contingency contracting to reduce absenteeism. Brooks (1974a, 1974b, 1975) and Morris (1975) found that contingency contracting effectively reduced absenteeism. Brooks (1975) described a case study of a 17 year-old male Mexican-American student. The student's attendance was perfect for 20 days after he was paid \$.15 for each class he attended. A follow-up of five days duration, conducted 20 days after the contract terminated, showed that the student attended each day. However no mention was made of the

parent's actions after, the contract stopped. It was possible that the parents continued to pay the student to attend.

Brooks (1974a) presented a case study of a 16 year-old male student who had a poor attendance record. His contract involved a payment of \$.10 for each class attended and a trip to Disneyland as a bonus for regular attendance. The student apparently attended for six consecutive weeks, and no follow-up was conducted.

Brooks (1974b) conducted a group study of 40 students in grades 9-12. Twenty students were used as controls and 20 as experimental students. The experimental group students received a ticket for each class attended. They also carried an attendance card to each class. The teacher initialed the card to indicate the student's attendance and was able to make positive comments if appropriate. Bonus tickets were given for the positive comments. The tickets were used in periodic drawings for prizes which included money, record albums and gift certificates. Group meetings were also held with the experimental group. The results indicated that the experimental group had significantly fewer absences than the control group which was not approached by the experimenter. No follow-up was conducted.

Morris (1975) used a contingency contract to reduce absenteeism for high school girls. The results indicated that individual contingency contracts significantly reduced absences. In addition, the girls who had contracts had significantly higher grade point averages than a control group. No follow-up data were presented.

A study by Weathers and Liberman (1975) did not obtain positive results using a contingency contract to reduce absenteeism. The subjects were different from the students in successful contingency contracting studies in that they each had multiple criminal offences and were on probation.

Four of the five studies of contingency contracting found a positive effect on attendance. It appears that with high school truants, who do not have serious legal difficulties, contingency contracting is a powerful intervention technique. However, a couple of problems with the studies of contingency contracting were noted. The intervention technique typically involved much more than the contract which made it impossible to determine which aspects of the programs were necessary to increase attendance. Often, regular meetings were held, the student's attendance was charted, or the student carried an attendance card. Also, follow-up data were rarely presented. Where follow-up data were presented, the contingencies present during that period were not mentioned.

To reiterate the major purposes of the present study were to evaluate the effectiveness of a contingency contract on attendance and to determine whether a successful intervention had lasting effects once the contract was terminated. Another objective was to compare the effectiveness of a contingency contract with a contract plus an attendance card to determine if the card was necessary for a successful intervention. The student carried the card for each teacher

to initial to indicate class attendance. Another objective was to determine if students turned in more assignments during the time that a contingency contract was in effect. The final objective was to obtain questionnaire data to determine whether students perceived changes in interpersonal relationships, the attractiveness of their schoolwork, and their overall day.

The present study used freshman and sophomore females as subjects. Females were used because their absenteeism problems appear to be more severe, at least in certain schools (Osborne, 1976; Stennett, 1967). In the school system in which the present study was conducted, the number of females who missed over 20 percent of the first semester school days was twice the number of males.

II. METHOD

Subjects and Setting

The high school is located in a small East Tennessee town and contains grades 9-12. Students from the eastern half of a predominantly rural county attend the school. The average enrollment during the year was approximately 980 students and the average absentee rate was approximately 9 percent.

Three freshmen and three sophomore females were selected from the 289 freshmen and sophomore females as subjects. The following selection criteria were used:

1. Each student had missed at least 20 percent of the first semester school days.
2. The absences were not in two or three blocks of several days each which might indicate illness but were evenly spread over the first semester.
3. A review of the subjects' record indicated they had a previous record of poor attendance.

The following students were selected as subjects:

Ann had the second highest absentee rate for the year for the sophomore girls. She missed 27 percent of the school days for the entire year. She obtained three credits for the year and failed three other courses. During her freshman year she scored at the 63rd percentile for the total Stanford Achievement Test battery. She is from a lower socioeconomic status family.

Mary had the fourth highest absentee rate for the sophomore girls. She missed 22 percent of the school days. Mary had been suspended several times during the first semester and early part of the second semester. Her offenses included drug use on campus and defiance of school rules. Mary scored at the 32nd percentile on the California Achievement test taken at the end of this school year. She lives with her mother and an older sister in a middle-class home.

Jane lives in an upper-lower socioeconomic status family with her mother, stepfather and an older sister. She has been identified as a handicapped student because of her poor English skills. However on the California Achievement Test, taken at the end of this school year, she scored at the 41st percentile.

Lisa comes from an upper-lower socioeconomic status family and lives with her mother, father and nine brothers and sisters. Her records indicated that she was considered "above average" by her second grade teacher. She scored at the 26th percentile on the California Achievement Test which she took at the end of this school year. Of the sophomore females she had the highest absentee rate. She missed 28 percent of the 175 school days.

Tina was suspended several times during the school year for breaking school rules. The school counselor described her as "tough kid" who is not at all intimidated by authority figures. She lives in a middle-class family. On the California Achievement Test, taken at the end of this

school year, she scored at the 27th percentile. Tina had the third highest absentee rate for the freshmen girls. She missed 27 percent of the school days.

Beth missed 34 percent of the days during the school year which was the highest for the freshmen girls. She dropped out of school with 17 school days remaining because she had been told that there was nothing she could do to receive any credits. On the Stanford Achievement Test which she took at the end of the eighth grade, she scored at the 10th percentile. Beth lives in a middle-class family.

Dependent Variables

Attendance. Attendance was the primary dependent variable used. Attendance was defined as any day the student's name did not appear on the official school register as being absent. Tennessee state law requires that each school system maintain a register which accurately reflects student enrollment and attendance. The maintenance of the register is the duty of one of the high school teachers. She obtains the attendance data from the daily absentee list. The school secretary types the absentee list each morning after the homeroom teachers have sent their lists of absent students. Any student who arrives after the list is complete is marked off and is not considered absent that day. As a safeguard, the teachers check their rolls each class period. Any student who is not in class and whose name is not on the absentee list is reported to the office.

Reliability on attendance was checked twice weekly during the final week of baseline, during the entire intervention period and once weekly during follow-up by checking with one of the student's teachers. The teacher was asked if the student was in class that day. For three students the attendance card served as an additional reliability check. For 15 days the daily absentee list was compared to the completed register. For the six students, no discrepancies were found between the daily absentee list, register, and teacher reports.

Questionnaire Data. Students were periodically asked to complete a five item questionnaire (Table 1). The purpose of the questionnaire was to determine whether students perceived changes in interpersonal relationships, the attractiveness of their school work, and the quality of their overall day.

Academic Productivity. Student academic productivity was measured by asking teachers to furnish the number of assignments and the number the student completed. These data were obtained for the entire second semester from two teachers for each student. Assignment data was collected at the end of the school year after the students had completed all of their classes. Neither teachers nor students were aware that academic productivity was being monitored until all school work was completed.

TABLE 1
QUESTIONNAIRE ADMINISTERED TO STUDENTS

Number	Question					
1.	How did you get along with your teachers today?					
	-3	-2	-1	0	+1	+2
	bad			neutral		good
2.	How did you get along with other students today?					
	-3	-2	-1	0	+1	+2
	bad			neutral		good
3.	The work I did in class today was:					
	-3	-2	-1	0	+1	+2
	boring			neutral		exciting
4.	For the past day I have gotten along with my parents					
	-3	-2	-1	0	+1	+2
	bad			neutral		good
5.	Overall my day was					
	-3	-2	-1	0	+1	+2
	bad			neutral		good

The academic productivity data were obtained from the English and science teachers for Ann and Tina. Jane's data were obtained from her math and science teachers and Mary's math and geography teachers furnished the information. Lisa's math and civics teachers were interviewed to obtain the academic productivity data and Beth's data were obtained from her math and science teachers.

Procedures

A multiple baseline design with follow-up (Bear, Wolf, and Risley, 1968; Hersen and Barlow, 1976) was used across the six subjects. The subjects were randomly divided into two groups of three. One group carried an attendance card to each teacher while the remaining three students did not carry a card. The card consisted of a list of the student's classes and a space for each teacher to initial. The examiner sent a memorandum to each of the student's teachers asking them to initial the card at the end of each class that the student attended. The teacher was instructed that class-work and behavior were not factors determining whether they initialed the card.

After the baseline period one student from each group was selected to begin the intervention phase at approximately the same time. The contract remained in effect until the student had attended for 15 consecutive days or had shown noticable improvement over a minimum of 20 school days. At that time, a second pair, one from each group, began the

intervention. The first pair then entered the follow-up phase which continued for the remainder of the year. When the contract produced a change for the second pair, the third pair entered the intervention phase. The second pair entered the follow-up phase and continued for the rest of the year. The third pair remained in the intervention phase for the remainder of the school year.

Baseline. The student's parents were contacted five weeks after the start of the second semester and were asked to sign a permission form. The parents were asked not to mention the request nor the purpose of the study to their daughters.

The baseline period consisted of recording the students' absentee records from the school register and two interviews with each student. During the final week of baseline the student was initially contacted by the experimenter and asked to complete the questionnaire. This interview took place four or five days prior to the intervention. During the first meeting the student was not told the purpose of the study nor that her attendance was being monitored. The student was contacted the second time on the final day of baseline. She was asked to again complete the questionnaire and the intervention procedures were explained. As often as possible, student interviews were conducted during the students study hall. If she did not have a study hall, she was asked to meet during one of her regular classes. After the

second meeting, the interviews lasted about five minutes. A student did not miss a class other than study hall more than once every other week.

Contingency Contract. On the final baseline day, three of the students (Ann, Jane, and Tina) were told the following:

I have asked you to come here because people here at school are worried about the number of days you have missed this year. I'm not here to get on your back or fuss at you. I'm sure you get enough of that from other people. I know that some of the time you have probably been sick but I'll bet you have missed some days you could have come if you had really wanted to. What I'm interested in is seeing if you can improve your attendance. Do you think that's possible?

At this point the experimenter obtained a response of "yes" or "I think so" from every student. He then continued:

You can do something for me and that is to come to school. In return I will do something for you. What I'll do is give you a dollar for each five days you come to school. If you come for 15 straight days I'll give you a bonus of five dollars. Does that sound fair to you? Do you have any questions?

After allowing time for questions the experimenter continued:

We will sign a piece of paper called a contract which says just what I told you. All you have to do is come to school whenever you can. I don't mean you should come when you are really sick and could make others sick. The other thing I want is to meet with you twice a week to fill out these questionnaires and to see how many days you've been here. Do you have any questions?

Before the student left she was told the following:

This contract is between you and me. I would appreciate it if you would not talk to any other student about what we are doing. I am going to do the same thing with some other kids and I don't want them to hear about it until I tell them. Also the rest of the people at school will still do the same things as always if you miss school. That will be between you and them. This contract won't have anything to do with that.

Contingency Contract plus Attendance Card. The remaining three students (Mary, Lisa, and Beth) were given the same instructions. The only difference was that Lisa did not commit herself to being able to improve her attendance. When asked if she thought she could improve her attendance she said she was not certain but she would try. After making the above statements, the experimenter told the students in this conditions the following:

I have a note for you to take to your teacher at the end of each class. The teacher will initial the note to show you were there. It has nothing to do with how well you behave or how you did your work.

A modification of the contract was necessary for Lisa. After she missed a day, she was told that she could obtain the five dollar bonus by coming the next six days.

Follow-up. Follow-up consisted of a return to baseline conditions except that the student was asked to complete the questionnaire weekly. Neither Tina nor Beth entered the follow-up phase. Tina did not show improvement early enough for the contract to be discontinued and follow-up begin. Beth dropped out of school 15 days into the intervention phase.

At the end of the follow-up period, teachers were interviewed to obtain academic productivity data.

III. RESULTS

Figure 1 presents the attendance data for the six students across the baseline, intervention, and follow-up phases. Figure 2 presents the academic productivity data in terms of the percentage of assignments turned in for each student. An analysis of the data indicated that Ann was absent 29.6 percent of the days and turned in 8 of 16 or 50 percent of her assignments during baseline. During the intervention phase she missed 4.5 percent of the days and turned in 12 of 15 (80 percent) of her assignments. During follow-up Ann had an absentee rate of 27.7 percent and completed 13 of 19 (68 percent) of her assignments.

Jane's absentee rate decreased from 26.8 percent in baseline to 5.3 and 5.5 percent during the intervention and follow-up conditions respectively. Her academic productivity increased from 57 percent (8 of 14 assignments) to 100 percent during intervention (10 of 10 assignments) and fell to 82 percent (9 of 11 assignments) during follow-up.

Tina was absent 39.3 percent of the days during baseline and 17.1 percent of the days during the intervention period. Since the intervention began relatively late in the school year and she did not quickly show substantial improvement, the contract was continued for the remainder of the school year. Tina completed 9 of 32 assignments (28 percent) during baseline and 1 of 11 (9 percent) of the intervention phase assignments.

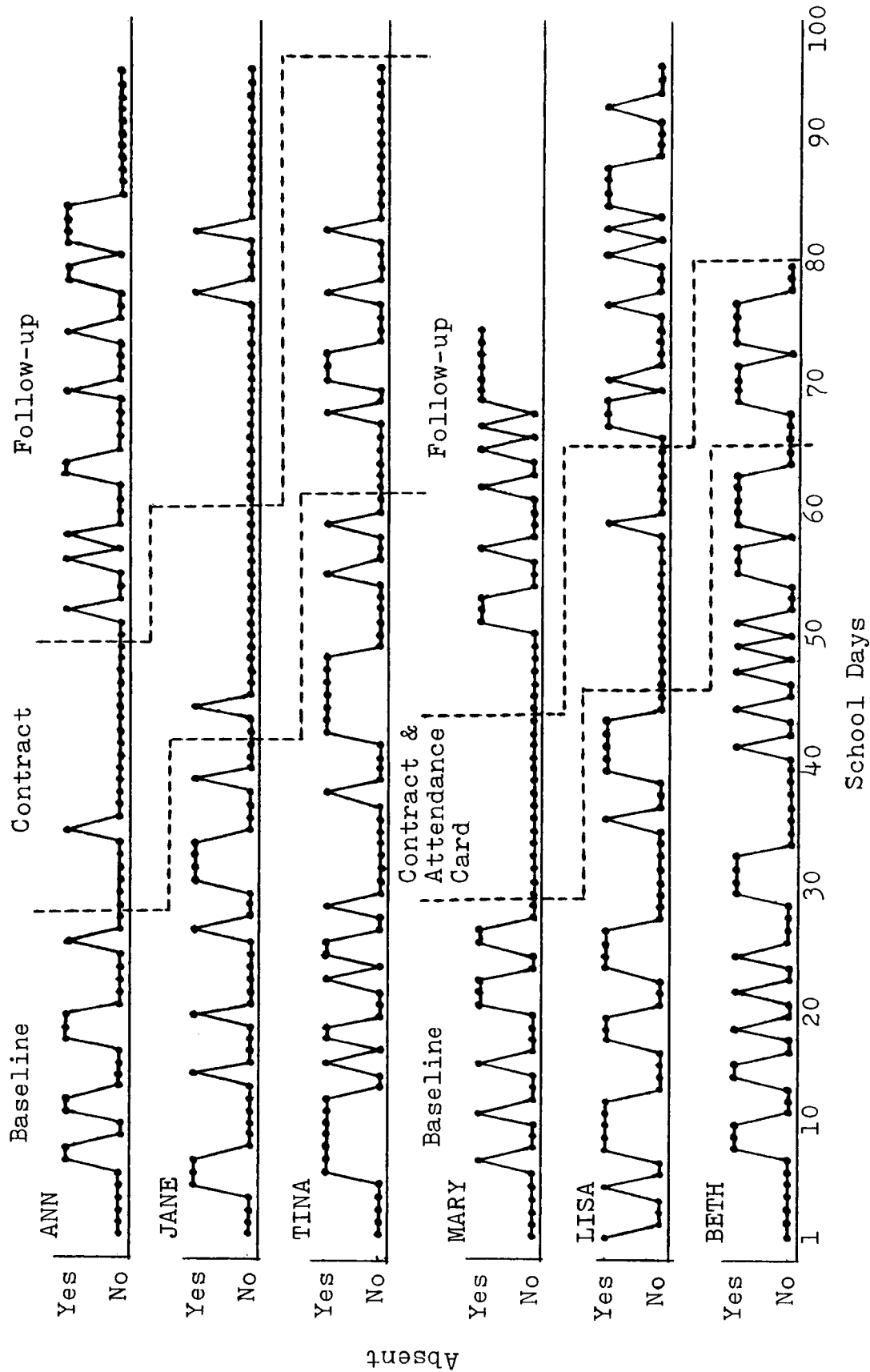


Figure 1. The Effects of Contingency Contracting and Contingency Contracting and an Attendance Card on Attendance.

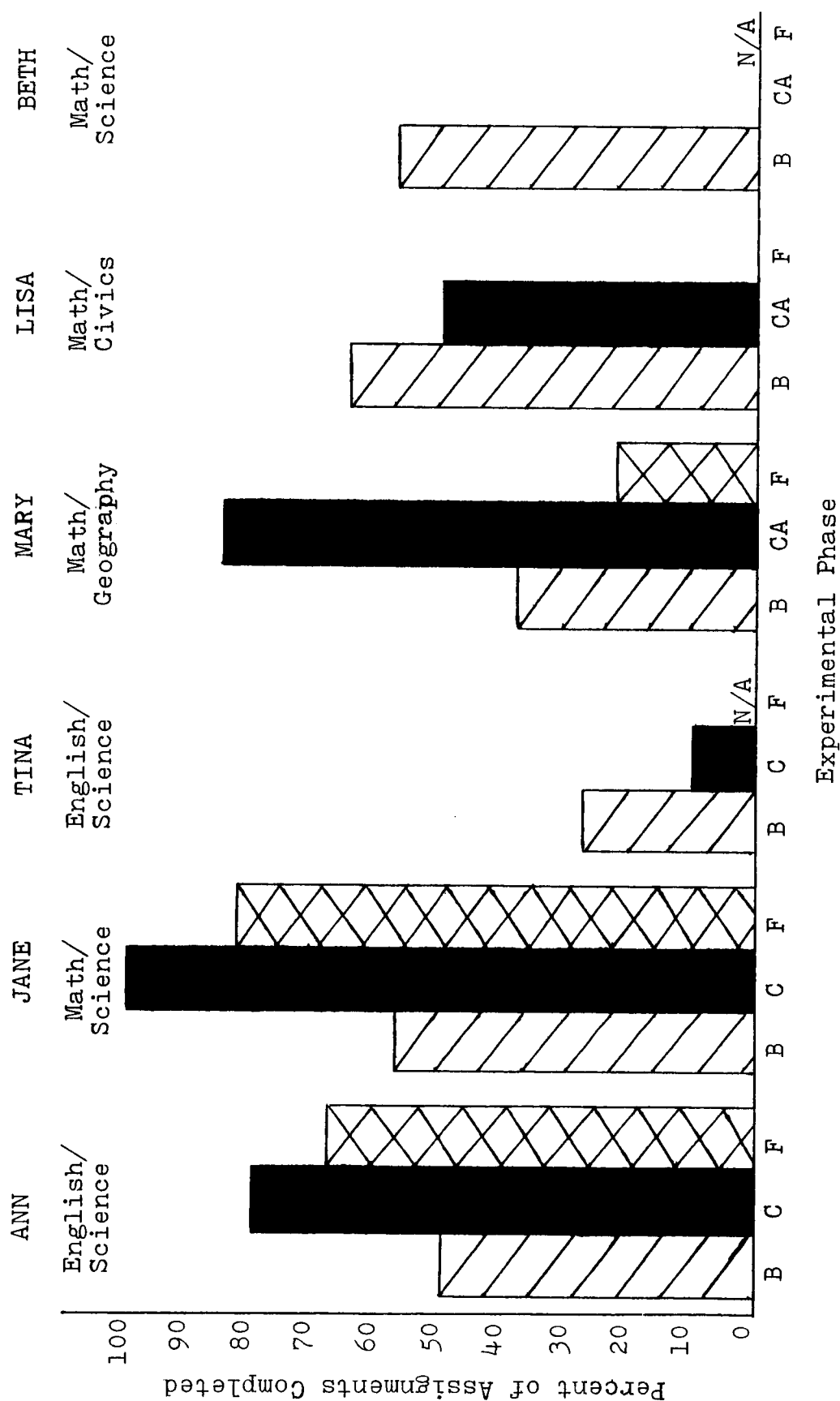


Figure 2. Percentage of Assignments Completed During Experimental Phases. B-Baseline; C-Contract; CA-Contract and Attendance Card; F-Follow-up.

The remaining three students (Mary, Lisa, and Beth) carried attendance cards to their teachers during the intervention period. Mary was absent 28.6 percent of the baseline days and missed no days during the intervention period. She was absent 43.8 percent of the days during follow-up. She dropped out of school approximately a month before the school year ended. She indicated that she was failing all her courses and had been told by several teachers that she could not pass for the year. Mary turned in 5 of 13 (38 percent) of her assignments during baseline. During the intervention period she turned in six of seven (86 percent) assignments and fell to two of nine (22 percent) during follow-up.

Lisa was absent 44.4 percent of the baseline days and turned in 11 of 17 (65 percent) assignments. She missed 5 percent of the intervention days and completed 5 of 10 (50 percent) assignments. During follow-up she was absent 38.7 percent of the days and turned in none of her nine assignments.

Beth missed 38.5 percent of the baseline days and turned in 10 of 19 (53 percent) of her assignments. During the intervention phase Beth missed 53.3 percent of the days and turned in none of her five assignments. She dropped out of school with about three weeks remaining. She had also been told by her teachers that she could not pass for the year.

Table 2 presents the responses of the six students to the five questionnaire items. A Friedman two-way analysis of variance indicated that there were no significant

TABLE 2
MEAN RESPONSES TO QUESTIONNAIRE ITEMS

Student	Questionnaire Number				
	1	2	3	4	5
Ann					
Baseline	3.0	2.5	2.0	3.0	3.0
Contract	2.0	2.8	2.0	2.3	2.1
Follow-up	1.8	2.8	2.0	2.3	1.9
Jane					
Baseline	1.0	2.0	2.0	2.0	1.0
Contract	2.0	1.7	1.7	1.7	1.7
Follow-up	2.0	2.0	1.9	1.9	2.6
Tina					
Baseline	3.0	3.0	-2.5	3.0	3.0
Contract	2.6	2.7	-2.1	2.9	2.8
Follow-up	---	---	---	---	---
Mary					
Baseline	3.0	3.0	1.5	3.0	0.0
Contract and Card	-.5	2.8	.3	3.0	-.5
Follow-up	0.0	3.0	.8	2.8	1.3
Lisa					
Baseline	2.0	2.0	2.0	2.0	2.0
Contract and Card	2.0	1.8	1.4	2.6	1.6
Follow-up	1.0	2.8	1.8	1.5	2.0
Beth					
Baseline	3.0	3.0	.5	1.5	2.5
Contract and Card	3.0	3.0	-.5	2.0	3.0
Follow-up	---	---	---	---	---

differences in the way any of the students answered the questionnaire items across the three experimental phases. The Friedman analysis showed that Mary ($\chi^2 = 34.47$, $p. < .05$), Tina ($\chi^2 = 32.08$, $p. < .05$), and Beth ($\chi^2 = 12.95$, $p. < .05$) had statistically significant variability in their responses across the five questionnaire items. Mary had consistently high ratings on the questionnaire items which dealt with her interactions with other students and her parents. Tina and Beth consistently rated the question dealing with their school work low. There were no significant differences across the questionnaire items for Ann, Lisa, and Jane.

IV. DISCUSSION

The results offer strong support for the effectiveness of a contingency contract even when used with students who are the schools worst attendance problems. During an intervention phase a student's absentee rate may not only be lowered but may be better than the rate for the entire school. Previous studies (Brooks, 1974a, 1974b, 1975; Morris 1975) which used contingency contracts to reduce absenteeism also used group or individual meetings and involved extensive contact with students. The present study indicated that counseling and extensive contact with a student were not necessary to improve attendance. In the present study, no attempt was made to determine motives for nonattendance nor to counsel the student.

The results indicated that a contingency contract can reduce absences for as long as seven weeks for a particular student. However, upon termination of the contract, the majority of students in the present study reverted to baseline rates of absenteeism. This result conflicts with previous research by Brooks (1975) and Noonan and Thibeault (1974) who found that students maintain their attendance gains during a follow-up period. In the present study three of four students returned to baseline levels when the contract was discontinued. Jane's absentee rate remained low when the contract was terminated. She remarked to the experimenter at the end of the intervention phase that she was going to continue to come to school because her grades

had improved and she was getting along much better with her parents as a result.

The attendance card was not necessary for a successful intervention. The attendance of the three students who did not carry the card was at least as good as the attendance of the other three. During follow-up the absentee rate of the two students who did not carry the card was lower than the rate of the two students who did carry the card. It appears that Brook's (1974b) hypothesis that the attendance card provides an avenue for interactions resulting in better relationships was not justified. A contingency contract and brief biweekly meetings without the attendance card were sufficient to reduce absences for chronic truants. In fact anecdotal evidence indicated that the attendance card may have negative effects. Two of the students who carried the card expressed displeasure with the card. Mary remarked that keeping up with the card was a "hassle." Lisa remarked that the other students questioned her about the reasons she approached the teacher after every class. She did not appear to be pleased with the peer or teacher attention she received.

In the present study, no attempt was made to improve the work that students did in their classes. However, the results indicated that academic productivity may increase as attendance improves. In three cases (Ann, Jane and Mary) there were large increases in academic productivity which coincided with the introduction of the contingency contract.

However, two students (Tina and Lisa) improved their attendance during the intervention phase but did not turn in more homework. In the future, a possible approach would be to target attendance initially and, if academic productivity does not improve, expand the contract. As the results of this study demonstrated, it may not be necessary in most cases to modify the contract.

The contract was only partially successful for Tina and had no positive effect on Beth. These two were the last students to enter the intervention phase. As Karweit (1973) and Levanto (1975) pointed out, attendance is poorest at the end of the year. According to teacher reports, Tina and Beth had essentially quit doing their schoolwork prior to the initiation of the contract. It appears that it was too much to expect a contingency contract to overcome the seven month trend of poor attendance, the academic difficulties that plagued both students, and the previously documented (Karweit, 1973; Levanto, 1975) poor attendance at the end of the school year. The power of the contingency contract was demonstrated by the fact that Tina reduced her absences by one half for the final seven weeks of school.

The results showed that the students did not vary their ratings on the questionnaire items as they changed their attendance patterns across the experimental phases. However Mary, Tina and Beth did vary their ratings across the five questionnaire items. Mary had high ratings on the questions concerning the way she had gotten along with her parents and

other students. Her responses to the other three questions were lower and showed much variability across the experimental phases. Both Tina and Beth rated the questionnaire item dealing with school work the lowest in comparison with the other questions. These results supported Crawford's (1974) study which found that students who miss much school said that one of the reasons was that their school work was not relevant to their lives. However, the comprehensive programs (Crawford, 1974; Sprengel and Tomey, 1974; and Wharton, 1975) designed to make appropriate changes in school curricula did not demonstrate that students improved their attendance.

In the present study no attempt was made to make the student's school work more attractive or interesting. For Tina, the contract was sufficient to improve her attendance. She did not rate the attractiveness of her school work any higher during the time that she attended more frequently. Given the proper incentives students can improve their attendance although they continue to rate their school work low. Beth also rated her school work low but did not improve her attendance during the intervention period. On the basis of the present study it was not possible to determine whether an intervention which started earlier in the school year would have improved her attendance or whether other changes in her school environment would have been necessary.

In the future, interventions to reduce absences should

begin early in the school year. This would give time for attendance to improve before the end of the year when absences tend to increase. It would also give students a chance to improve their grades and build intrinsic motives for school attendance. Improvements in follow-up data may result from interventions which start earlier in the school year. An intervention which begins late in the year encounters several difficulties. Students have missed so much school that no amount of improvement would result in a passing grade for a course. Teachers have given up on the student and the student has given up on herself.

There is a need to conduct additional studies dealing with several aspects of attendance. While the present study demonstrated that a contingency contract and limited contract with the student were sufficient to reduce absences, it may be that the contingencies were unnecessary. In fact, one of the students remarked that it was "weird" to be paid to go to school. Future research may show that a verbal or written commitment to a person who has not lectured or threatened the student, may be sufficient to reduce absences.

Additional studies are required to determine how long a contract can maintain a low absentee rate. In the present study the longest contract period was seven weeks. Can a contract effectively be used for longer periods? If not, we need to determine what steps can be taken to fade the contract and ensure acceptable attendance levels.

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