Elimination of Disruptive Bus Riding Behavior via Token Reinforcement

Sandra J. Ferrell
Western Michigan University

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ELIMINATION OF DISRUPTIVE BUS RIDING BEHAVIOR VIA TOKEN REINFORCEMENT

by

Sandra J. Ferrell

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Submitted to the
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Sandra J. Ferrell
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Behavior modification procedures have greatly influenced the technology used to deal with children's behavior problems, both in the school (Thomas, Becker, and Armstrong, 1968; Madsen, Becker, and Thomas, 1968; Hall, Panyan, Rabon, and Broden, 1968; Osborne, 1969; Barrish, Saunders, and Wolf, 1969; Deitz and Repp, 1973; Ayllon and Roberts, 1974) and home (Zeiberger, Sampen, and Sloane, 1968; Hall, Axelrod, Tyler, Grief, Jones, and Robertson, 1972; Christophersen, Arnold, Hill, and Quilitch, 1972; Kifer, Lewis, Green, and Phillips, 1974). However, relatively little attention has been given to school bus drivers and the behavior problems they face in transporting children to and from school. Not surprisingly, school administrators, transportation supervisors, bus drivers, and parents are asking for help in dealing with students who are destructive and aggressive while riding the bus. In a 1971 survey conducted by the U. S. Department of Transportation, one-third of the drivers reported serious discipline problems occurring at least once each day. Approximately one-fifth of these drivers found it necessary to stop their busses in an attempt to restore order. This survey also indicated that less than 4% of the school districts had funds which would allow them to place an adult monitor on the bus. In 1976, a survey was conducted by the Region 12 Special Education Transportation Committee, a five-county area in Southwest Michigan where the present study was conducted. Of all the transportation supervisors and drivers responding, 80% felt there was a need for an in-service program, which, in part, would focus on dealing with student behavior problems. Again, there were no funds in these districts to provide for bus monitors to
assist drivers in this area. Farmer (1975) stated that the selection and training of drivers to handle such situations is, in itself, a distressing problem. Drivers need to be given procedures which they can implement consistently and obtain quick results.

It is interesting to note the change in attitudes over the years concerning school bus discipline problems. In 1950, Belknap stated that "pupil behavior on busses is primarily a matter of morale building within the school. With that job well done, there is little difficulty on the busses." In 1940, Noble stated that drivers dealt with behavior problems by knowing the school official to whom they could report the offender. However, as more recent literature indicates, there is increasing concern that drivers be able to deal effectively with discipline problems as they occur. There is need for in-service training to teach behavior modification techniques, and also that these techniques be relatively inexpensive to implement.

Reid, Hill, Rawers, and Montegar (1975) developed an inexpensive program which the driver implemented to teach a hyperactive boy socially acceptable car riding behavior via contingent music. The driver's instructions and reprimands to the child for rocking, kicking, laying down, and attempting to stand on his head were relatively ineffective control measures. During car rides to and from school, the radio was tuned in to a local FM station. Contingent upon any of the above inappropriate behaviors, the driver turned the radio off until the child sat quietly for several seconds. During the course of the study, the subject was placed on a Ritalin and Mellaril medication program. It was found that medication in conjunction with contingent music was more
effective in controlling disruptive car-riding behaviors than medication alone.

Ritschl and Mongrella (1972) also developed a program utilizing contingent music; however, the driver was not trained to administer it. The bus transported handicapped children emitting high rates of out-of-seat behavior, hitting, aggressive verbal threats, and aversive noises. A teacher rode the bus and established a seating chart, keeping some distance between the most disruptive youngsters. She also carried a portable cassette tape player for playing rock and roll music. During afternoon bus rides only, a 5-second time-out from music was made contingent upon each instance of out-of-seat behavior, with a resultant decrease in its rate.

A relatively inexpensive punishment procedure, administered by the driver, was developed by Whitehurst and Miller (1973) in modifying the aggressive behavior of two brothers towards each other while riding a nursery school bus. Aggression included hitting, slapping, poking, pinching, spitting, pulling hair, restraining the other, throwing objects, kicking, and pushing. For three or more instances of aggression, the child who misbehaved would not be allowed to get off the bus when it passed their home but had to wait until the bus passed by the house a second time. This condition resulted in a significant decrease in aggressive behaviors.

McKenzie (1970) eliminated the aggressive bus riding behavior of a first grade boy by having his teacher award a Tootsie Roll contingent upon sitting quietly during the ride, as reported by the bus driver. Allen, Turner, and Everett (1970) developed a group-control technique
for one particular youngster riding a school bus for a Head Start program. The teacher rode the bus and monitored the youngster's behavior. Contingent upon his sitting quietly with the seat belt buckled, the teacher passed out peanuts to every youngster while praising the single child's good behavior. Barth, Hornbeek, and Lorentzon (1975) worked with aggressive pre-school age retarded children. Contingent upon appropriate bus riding behavior, a monitor delivered tokens which were exchanged for a "smile face award" paired with praise from his/her classroom staff.

Tanzman (1971) reported on a pilot project of the Nassau Board of Cooperative Educational Services. The driver and monitor of a bus transporting 11 students complained of high rates of yelling, kicking, and slapping among the students. For 12 days, a videotape recorder and monitor were installed at the front of the bus, playing various taped programs. Disruptive behaviors decreased, and the low rate was maintained by the bus monitor simply stating that the program would be turned off for any instance of inappropriate behavior. Social interactions were observed to increase, as students discussed programs they wished to watch and then presented the driver with a group request. The program was discontinued due to its expense, though the Nassau Board was considering expanding the program to other buses and adding "school readiness" materials to the presentations.

Except for the Tanzman (1971) study, none of the above studies required the use of expensive equipment. The expense involved in the Ritschel et al. (1972), the Allen et al. (1970), and the Barth et al. (1975) studies was in paying a teacher or staff to ride the bus as a
monitor. Though the Reid et al. (1975), the Whitehurst et al. (1973),
and the McKenzie (1970) studies involved the driver making general
behavioral observations upon which consequation was based, none of
these studies indicated any type of formal training for the driver,
either in observational skills or behavior management techniques.

Another issue to consider would be the specific programs developed
for the subjects. None of the studies cited attempted to make the bus
program part of the child's daily program. Many times, the inappropri­
ate behavior emitted at home and school are also the ones emitted on
the bus. Rather than dealing with each setting in an isolated situa­
tion, parents, teachers, and transportation personnel might coordinate
their programming efforts to develop a consistent daily continuum for
the child in order to facilitate maintenance and generalization of
treatment effects.

The present study attempted to deal with these issues by develop­
ing an inexpensive program which the bus driver could be trained to
administer and which would coordinate with programs already operating
at home and school. In developing the program for the bus, several
features of token economies utilized at home and school were incorpora­
ted. The subject was on a point system at home similar to that used
at Achievement Place (Phillips, 1968; Bailey, Wolf, and Phillips,
earned for appropriate social interactions and performing various
household chores. Points could be lost for aggressive verbal or physi­
cal behavior, noncompliance with parental instructions, and failure to
perform assigned chores. Points were exchanged for the natural
reinforcers found in the home setting. At school the subject was on a token economy in a highly structured classroom (O'Leary and Becker, 1967; O'Leary, Becker, Evans, and Saudargas, 1969).

When dealing with staff such as bus drivers, untrained in the use of behavioral techniques, demonstrations, training, and fading of the trainer may be necessary steps to follow to facilitate the staff's usage of such techniques. Ringer (1973) reported that a "token helper," an experienced behavioral technician, first set up and demonstrated a classroom token economy to a fourth grade teacher, trained the teacher to use the system, then faded out of the class so that the teacher was administering the token economy herself.
Method

Subject

A 10-year-old male, I. Q. 46, served as subject. He was enrolled at the Kalamazoo Valley Multihandicap Center, an educational program for the physically handicapped and trainable retarded. He resided with two foster parents, one of whom was a teacher at the Center. The subject had a well established history with a token economy at school and a point system at home to control highly disruptive verbal behavior. He emitted the same type of disruptive behavior on his school bus.

Setting.

Bus. The subject rode a public school bus to and from school for approximately 20 minutes, along with 12 other youngsters enrolled at the same program. The standard Blue Bird bus had a seating capacity of 30, with two seats adapted with infant car seats and another two adapted with four straps to be clipped to restraining harnesses worn by two students.

School. Upon arrival at school in the morning, the subject reported to his classroom. It was equipped with blackboards, bulletin boards, tables, chairs, two soundproof therapy booths, and a corner with a record player and an assortment of records. His first 15 minutes at school consisted of free time activities.

Home. Upon arrival at home in the afternoon, the subject was greeted by his foster father. Contingent upon points earned in the
morning before school and upon points earned once home, he was given access to snacks, bike riding, television, or an assortment of toys.

Apparatus

A four-digit hand counter with a single push button and reset knob was taped to the dash of the bus during treatment. Also utilized was an orange point card specifying the date, A. M. or P. M. ride, points earned, and comments.

Observation

The experimenter began riding the school bus two months before baseline was initiated in order to define the disruptive behaviors, to develop a recording tool sensitive to the frequency of short duration behaviors, and to allow the students to habituate to the presence of a new rider. The experimenter observed from the last seat on the left side of the bus. There were no interactions with the students and no attempts to modify the driver's usual interactions with the riders.

Behaviors. The following behaviors were recorded for the subject: (1) destructive behaviors: slapping others, poking others with fingers, hitting window with hand(s) or seat buckle, slapping or kicking seat; (2) out of seat: turning in seat so that one or both hands and arms were over the back, laying down on the seat, not sitting in assigned seat; (3) self-stimulatory behaviors: waving one or both hands in front of face, rocking back and forth in seat, bouncing up and down in seat; (4) vocalizations: nonsense vocalizations, screaming, yelling, modeling or imitating nonsense or verbal vocalizations of other students, instructing others what to do.
Data collection. A partial interval observational procedure was employed. Each minute was divided into six, 10-second intervals, which were indicated on a cassette tape. The subject's behavior was observed and recorded during the first two intervals only. The four disruptive behaviors were coded (D, O, S, V respectively) on a pre-printed data sheet with space to record up to 61 minutes. If any of the disruptive behaviors occurred during the first two intervals, a vertical slash was drawn through the corresponding codes. If the subject was appropriate, a horizontal slash was drawn through all four codes. For each morning and afternoon bus run, a percentage of disruptive intervals was computed.

Reliability. Two undergraduate psychology students assessed reliability. Their training consisted of progressing through a sequence of steps, with a 90% mastery criterion for each. The program began by having the observers score video tapes of single subjects with single behaviors, followed by single subjects with two behaviors each. Then, they began riding the school bus, scoring two subjects with two behaviors, three subjects with three behaviors, and five subjects with four behaviors.

When reliability checks were performed, the experimenter sat in the last seat on the right side of the bus and the reliability observer in the last seat on the left. Reliability was assessed for 13 of the 40 sessions, or for 32% of the sessions; and checks were about evenly distributed across both morning and afternoon bus runs and across baseline and treatment phases. Reliability was computed by dividing the number of agreements by the number of agreements plus disagreements and
then multiplying by 100. Agreement on the occurrence of disruptive behavior ranged from 70% to 100% with a mean of 87.9%; agreement on the nonoccurrence of disruptive behavior ranged from 71% to 100% with a mean of 94.6%; overall agreement ranged from 74% to 100% with a mean of 92.4%.

**Procedure**

**Baseline.** Baseline data were recorded during both morning and afternoon bus runs. During that time, the experimenter avoided all interactions with the students and simply observed and recorded the behaviors emitted by the subject. The driver was instructed to continue dealing with behavior problems as she normally would. She was given no feedback on her interactions with the students and no indication of what the treatment program would involve.

**Token systems.** Prior to the beginning of the study, the subject was on two types of token economies. At school, his day was divided into 10, 30-minute teaching sessions. He was required to earn a minimum of 20 poker chips during each session, which he counted out at the end of the session, in order to exchange them for back-up reinforcers. These included going outside, listening to music, going to the playroom, eating lunch with staff, visiting his foster mother, and a variety of edible reinforcers. Failure to earn 20 chips resulted in a loss of all chips earned during that session and having to sit alone at a table until his next session. The response cost measure was initiated to prevent him from earning a majority of chips during one session, misbehaving, then earning the remaining chips early in the next session.
At home, the subject earned points which were posted on a chart in numerical form. He was required to earn 40 points for various chores performed before going to school in the morning and immediately after school in order to receive any back-up reinforcers. A response cost system was also in effect at home.

Neither of these systems could be utilized effectively on the bus. Containers for poker chips might have been difficult to mount securely, and poker chips might have been cumbersome for the driver to utilize while operating the bus. Clearly, the driver could not write points on a posted chart for all instances where points would have been awarded. Therefore, the possibility of utilizing a hand counter system was investigated in the following way.

The system was initiated on a trial basis during one, 30-minute session at school. The materials for the session were arranged as usual, except that a small hand counter was placed on the table next to the tutor rather than a container and poker chips. The counter was placed out of the subject's reach so that the numbers could not be read. This was done to simulate the situation on the bus where the subject would not be sitting close enough to the counter to be able to read the numbers. The subject was told that instead of earning chips, he would earn a point each time the tutor pushed the button on the counter. At the end of the session, the subject read off the number, receiving his reinforcer for 20 or more points, or sitting alone until his next session for fewer than 20 points.

The system was extremely successful in the classroom, and the teacher continued using it after the trial period. Therefore, the
system was expanded for use on the bus.

First, the morning and afternoon bus routes were divided into nine relatively equal intervals, each designated by a landmark, such as a stoplight. The subject could earn one point for each interval if he remained appropriate for the entire length of the interval. A tenth point was awarded for buckling his seat belt, and an eleventh point could be earned for an extremely good bus ride. For any instance of disruptive behavior, the point for that interval was withheld. At the end of each interval, the driver either praised good behavior as she pressed the button on the counter, or simply stated what behavior had occurred which prevented him from earning the point. For extremely disruptive behavior, such as persistent screaming, up to two verbal reprimands were given per interval, after which points were taken away from those already earned. If disruptive behavior continued after the loss of all points tallied on the counter, points were then subtracted from the point total at home.

During treatment phases, the counter was taped to the dash within the driver's reach. Points tallied on the counter during the course of a ride were later recorded on a card, along with comments describing the subject's general behavior. The card was given to the subject to give to his teacher or foster father and was returned to the driver at the beginning of the next ride. The following exchange system was in effect at both school and home: 10-11 points could be exchanged for a back-up reinforcer, such as listening to music at school or bike riding; 8-9 points resulted in enthusiastic praise and prompting to work for 10 points during the next ride; 5-7 points resulted in a mild
reprimand and being ignored until some later appropriate behavior could be reinforced; 0-4 points resulted in a 15-minute time-out period, either in a therapy booth at school or his room at home. Additional contingencies were also in effect but differed between the two settings due to differences in token systems. At school, for earning eight points or more, the subject's point card was posted on a "Good Work" bulletin board. At home, eight points or more were necessary for the bus points to be added to the home total.

Driver training. Before treatment was begun, the bus driver underwent approximately two hours of training in the use of token reinforcement systems. The experimenter first described the inappropriate behaviors emitted at school and home and the token systems developed to deal with them. The driver was then told of the behaviors targeted on the bus, how her interactions with the subject affected the rate of those responses, and how her consequation differed from that provided at school and home. The token economy developed for the bus was then described. The driver was given a written copy of the program, a list of landmarks designating the intervals, and a sheet of suggested comments which could be written on the point card to describe the subject's behavior.

During the first day of intervention, the experimenter stood next to the driver as the subject boarded the bus. The experimenter told the subject that he would be earning points for good behavior and would lose points for various inappropriate behaviors. He was shown the counter and told that the driver would push the button each time he earned a point. The points would be recorded on a card for him to give
to his foster father. The experimenter then returned to the left rear seat. At the end of each interval, the experimenter informed the driver whether a point was awarded or withheld and why. At the end of the ride, the subject was told to read off the number on the counter for the driver to record on his card. The experimenter dictated the comments to be written.

During the remainder of the study, the experimenter sat in the left rear seat. However, for the first two weeks of intervention, when the subject boarded the bus, the experimenter prompted him to repeat the rules under which he earned points. All other verbalizations were instructions directed to the driver rather than praise, reprimands, or feedback to the subject.

The experimenter faded out of the token system according to the following sequence of steps:

Day 2  Experimenter prompted subject to repeat rules, then avoided all other interactions with him; instructed driver to award or withhold points and indicated why; dictated comments;

Day 3  Prompted rules; allowed driver to initiate consequation for each interval, providing immediate feedback as to its correctness; dictated comments;

Day 4  Prompted rules; allowed driver to initiate consequation and comments, providing immediate feedback;

Day 5  Same as Day 4;

Day 6  Same as Day 4;

Day 7  Prompted rules; only intervened if driver neglected to consequate an interval or did so inappropriately; provided feedback at end of ride;

Day 8  Same as Day 7;

Day 9  Same as Day 7;
Day 10  Same as Day 7;
Day 11  And through end of study--provided corrective feedback to driver as necessary at end of ride.

Experimental Design

A multiple baseline design (Baer, Wolf, and Risley, 1968) across afternoon and morning runs was utilized. Baseline data were collected for 18 afternoon sessions before intervention was initiated for 22 sessions. Baseline data were recorded for 28 morning sessions before intervention was initiated for 12 sessions.
Results

The results of this study indicated that a bus driver could be successfully taught to administer an effective token economy on her bus. As can be seen in Fig. 1, the point system produced a reduction in the rate of disruptive behaviors. During the afternoon baseline, the average percentage of disruptive intervals was 66.18%, with a range of 20% to 100%. When the token economy was implemented on session 19, the percentage of disruptive intervals dropped to a mean of 5.14%, with a range of 0% to 40%.

The average percentage of disruptive intervals during the morning baseline was 48.52%, with a range of 0% to 92%. Between and including sessions 19 and 28 when the token economy was in effect only in the afternoon, the average percentage of disruptive morning intervals was 50%, with a range of 18% to 71%. It, therefore, appeared that the effects observed during the afternoon did not generalize to the morning sessions. When the token economy was introduced in the morning on session 29, disruptive behaviors were completely eliminated.

Fluctuations in the data correlated with events beyond the experimenter's control. The subject participated in weekly field trips during the course of the study. Baseline sessions 12, 14, 15, and 16 reflect field trip days when the subject appeared to be tired and withdrawn during both morning and afternoon rides. Session 20 also reflects a field trip day. And as seen in Fig. 1, there was a relative decrease in rate during the morning baseline ride and an 11 percentage point increase from 9% to 20% for the second session of...
Figure 1: The percentage of disruptive afternoon and morning intervals during baseline and token economy conditions.
BASELINE

TOKEN ECONOMY

FIGURE 1

PERCENT DISRUPTIVE PM INTERVALS

PERCENT DISRUPTIVE AM INTERVALS

SESSIONS
afternoon intervention. The subject received only five points for the ride, resulting in a reprimand from his foster father. The subsequent sessions indicated a decrease in disruptive intervals.

Session 26 was also a field trip day. The subject was brought to school by his foster mother so he did not ride the bus in the morning. During the afternoon token program, disruptive intervals increased to 40%. The subject had earned three points during the beginning of the trip, but continued screaming and noncompliance resulted in their removal. Two points were also taken from the home total, and a 15-minute time-out period imposed. After this consequence, disruptive intervals dropped to 9% for the next four sessions, with disruptive intervals not exceeding 4% for the remainder of the study.
Discussion

The success of the program indicated that a bus driver, just like countless numbers of parents and teachers, could be taught to utilize behavioral techniques to control disruptive behaviors on a school bus. The sequence of steps used to train the driver supported Ringer's (1973) suggestions of providing a rational for the procedure, providing a successful model to imitate, and daily feedback and discussions as the trainer faded out of the program.

The multiple baseline design demonstrated experimental control while at the same time was acceptable to transportation and school personnel. Since baseline data indicated that a higher rate of disruptive behavior was occurring in the afternoon than in the morning, the token economy was first implemented in the afternoon. Once control had been adequately established and the results were not observed to generalize to the morning, the system was put into effect across the entire day. If the results had generalized to the morning, a reversal would have been attempted. However, it is not clear whether a reversal would have been adequate in demonstrating control, at least in this particular case. Once the token economy had been established across both morning and afternoon sessions, the more natural social contingencies appeared to become as powerful, or more so, than the opportunity to earn points. This was demonstrated numerous times when the driver was calling attention to the subject's just earned point and he would respond with, "Wait. I want to talk to you first," or would refuse to acknowledge the point until completing an appropriate
conversation with a peer. The increase in socially appropriate behavior, such as helping other peers, and especially in conversation, was in marked contrast to the subject's previous antisocial behavior.

In discussing experimental design, it is worth mentioning that the transportation supervisors and driver were given explanations as to what was involved in a multiple baseline design and that if it failed to demonstrate control, a reversal would be employed. Though technical terms were avoided in these explanations, adequate rationale and information was given such that objections could be dealt with before the program was begun. Occasionally, it was necessary to restate the rationale for experimental manipulations; but since they had all been agreed upon beforehand, public relations with the transportation personnel remained good throughout the study.

Another major consideration was the coordination of efforts by the driver, foster parents, and teacher. Within the first three days of intervention, it was found that there was confusion as to how the foster parents should respond to various point values, especially when low points were indicated on the card and the comments praised the subject's behavior. Though the experimenter was dictating comments, the driver was writing comments to describe behavior which was relatively more appropriate than what had been observed during the past few weeks. The situation was remedied by issuing a tighter, more uniform point scale and a list of corresponding comments to the driver, foster parents, and teacher. There was also a conference with each to discuss the contingencies in effect for various point values.

A minor problem, which was easily eliminated through corrective
feedback and discussion, was the driver's initial inconsistency in awarding points. As the subject's behavior became more appropriate, there was a tendency to give points because "he was trying," or "he didn't mean to do it." The importance of consistency was stressed, to the point where the driver could eventually identify behaviors which she "wanted to give points for but knew that he'd try to get away with more later if she did give them."

There were several major advantages which resulted from the decrease in the disruptive behavior of just one youngster on this bus. First, the driver was better able to concentrate on efficiently driving the bus rather than half concentrating on quieting a disorderly group of children. General behavioral observations made throughout the study indicated that a single disruptive youngster could become so distracting as to present a potential safety hazard. During morning sessions 3, 6, 9, and 10 and afternoon sessions 3, 4, 5, 11, 13, 17, and 18, all relatively high disruptive sessions, the driver was observed to have made one or more sudden and/or hesitant stops or jerky turns, all of which were potentially dangerous due to the close proximity of other vehicles to the bus. During these same sessions, anywhere from two to eight other students were observed to cry, tantrum, or become self-abusive, who were otherwise quiet riders. The driver's reprimands to the subject and attempts to comfort other students were ineffective in restoring order. Evaluation from teachers and parents indicated that these children had less productive school days and were more noncompliant at home after having an upsetting bus ride. However, with the implementation of the token economy and the resultant decrease in the
disruptive behavior of just one youngster, the driver was observed to display better judgment in driving and demonstrated far better control over general student-related situations.

As the subject became more appropriate and initiated conversation with the driver and his peers, the driver was also observed to increase her social interactions with all youngsters on the bus. Many times she was capable of involving several youngsters in a conversation, who would then continue it on their own. No doubt that this positive change was reinforcing for the driver, as she often verbalized her total satisfaction with the program, not only to the experimenter but to her supervisors. She was so impressed with the results that she consulted with the experimenter on several occasions in setting up a token program for a kindergarten route she also drove. Though this system was far weaker in design, she did report success in gaining control over the disruptive behaviors of this second group of children.

At the point where this study formally terminated, the driver was leaving the route for summer vacation. Before she left, the new driver was brought in for several days and trained to administer the token economy in much the same way as the original driver. However, the subject's behavior had come under such good control that the foster parents and teacher had decided to work with the new driver to fade the subject off the point system. It is felt that this would be the next logical step to pursue for future studies; that once highly disruptive behaviors had come under the control of "artificial" consequence systems, that the driver be trained to fade the system out while still maintaining a high level of control. A sequence of
successively leaner schedules of token reinforcement might be written out for the driver, along with a criterion for mastering each step. This schedule would coincide with a modified exchange scale at home and school. Once points had been faded out, comments describing the youngster's bus riding behavior would be the last step to fade. During this fading process, the driver would be instructed to make use of contingent praise and reprimands, and also peer pressure techniques, to control disruptive behaviors on the bus.

This one study was successful in having a single bus driver establish control over the disruptive behaviors of one youngster on her bus and in so doing, gained the support of an entire region of school districts who have indicated willingness to have professionals and/or researchers come into their programs to train their drivers. This support was demonstrated through feedback provided by the Southwest Michigan Region 12 Safety and Transportation Consultant and three transportation supervisors in the Region. In this particular school system alone, there are numerous problems that still need to be dealt with—bus drivers threatening to quit due to "uncontrollable" behavior problems, youngsters suspended from riding the bus because of severe aggressive behaviors, and others on probation while riding the bus in straight jackets. Though these problems are not yet well publicized in the literature, school bus behavior problems and the training of drivers to deal with them appear to be an area in need of professional intervention.
REFERENCES


