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U.S. Department
of Transportation
National Highway
Traffic Safety
Administration

THE DEVELOPMENT AND TEST OF URBAN AND RURAL PEDESTRIAN SAFETY MESSAGES

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Dunlap and Associates East, Inc.
17 Washington Street
Norwalk, CT 06854

Contract No. DTNH22-80-C-07475
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16. Abstract

The objective of this project was to identify, develop and produce public education messages for pedestrian safety. Pedestrian accident types and situations which had not been previously addressed through public education were selected. These included "riding toys," "Backing," "Ped Not in Road," "Visual Screens," "Intersection Dash," "Darts and Dashes," "School Bus," "Child Supervision," "Elderly," "Mail Box," and "Disabled Vehicle." Each type was analyzed to determine specific behavioral advice that could be adopted by pedestrians, parents or drivers and could be expected to reduce accidents. Prototype TV and radio scripts, pamphlets and posters were developed to carry this advice to identified target groups. These prototype media forms underwent focus group reaction testing. Three TV spots and a 15 minute in-class film were produced to finished form. The spots were targeted to adult pedestrians (Intersection Dash, :30 seconds), child pedestrians (Intersection Dash, :60 seconds) and children who play on riding toys (60 seconds). The in-class film was designed to follow the original Willy Whistle film and present more complex traffic situations to older children (7-14 years).

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DEPARTMENT OF TRANSPORTATION
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TECHNICAL SUMMARY

CONTRACTOR	Dunlap and Associates East, Inc. 17 Washington Street Norwalk, CT 06854	CONTRACT NUMBER DTNH22-80-C-07475
REPORT TITLE	The Development and Test or Urban and Rural Pedestrian Safety Messages	REPORT DATE January 1985
REPORT AUTHOR(S)	Preusser, D.F., Blomberg, R.D., Edwards, J.M., Farrell, M.L., and Preusser, C.W.	

The objective of this project was to identify, develop and produce pedestrian safety messages as countermeasures for rural and urban pedestrian/motor vehicle crashes. This was the third effort in a series of studies designed to reduce pedestrian accidents through public education. The first of these studies (Blomberg and Preusser, 1975) demonstrated that drivers and pedestrians would adopt safer behaviors once they knew the specific behaviors and understood the need for these behaviors. Public education messages which advocated simple and convenient behaviors were most effective. The second effort (Blomberg, Preusser, Hale and Leaf, in process) developed several of the research concepts from the first study into finished media products. These products were then distributed in city-wide field tests and the results showed that the messages could reduce accidents if they received sufficient exposure to the target audience. Child oriented TV spots and in-school materials were particularly effective in gaining exposure.

The present effort was based largely on the success of the previous studies. It was designed to extend the available produced media products to accident generating situations which had not yet been addressed. However, the objective here was only to develop and produce these media products and not to test their ability to reduce accidents. The first step was to identify rural and urban pedestrian accident-generating situations which appeared amenable to safety message countermeasures but which had not been the target of previous efforts. Selection criteria were generated and available accident data were analyzed.

Each target accident-generating situation was subjected to a detailed analysis. Statistical information as well as hard-copy accident reports were examined across several different pedestrian accident data bases. The purpose of these analyses was to derive specific advice or safety message contents for pedestrians, parents and drivers. Each message provided a behavioral solution to a potential accident situation. The accident targets were as follows:

(Continue on additional pages)

"PREPARED FOR THE DEPARTMENT OF TRANSPORTATION, NATIONAL HIGHWAY TRAFFIC SAFETY ADMINISTRATION UNDER CONTRACT NO.: DTNH22-80-C-07475. THE OPINIONS, FINDINGS, AND CONCLUSIONS EXPRESSED IN THIS PUBLICATION ARE THOSE OF THE AUTHORS AND NOT NECESSARILY THOSE OF THE NATIONAL HIGHWAY TRAFFIC SAFETY ADMINISTRATION."

Target Accident-Generating Situations	Frequency* Urban	Rural	Major Target Groups
Rural/Suburban Midblock Darts and Dashes (DO1, DO2, Mid Dash)	--	31.0%	Children
Intersection Dash	12.5%	9.9%	Children, Adults
Ped Not in Road	7.5%	1.4%	Pedestrians
Backing	4.3%	1.7%	Pedestrians, Drivers
Disabled Vehicle	1.4%	5.6%	Drivers
School Bus	N.A.	3.0%	Bus Drivers
Mail Box	N.A.	1.4%	Parents
Big Wheel	(approx. 2%-5%)		Parents, Children
Elderly	(approx. 5%-10%)		Elderly Pedestrians
Child Supervision	(approx. 13%)		Parents
Visual Screens	(approx. 20%)		Pedestrians

*Entries are estimated accident frequencies often averaged across several data bases (see body of report). N.A. means estimate was not available. "Rural" refers to both rural and suburban crashes.

Each message was then analyzed to determine an appropriate media to convey the message to the target audience. In general, audiovisual media (e.g., television and in-school film) were preferred because they can show the actual recommended behaviors being implemented in real street crossing situations. Radio and print were recommended only for specially targeted audiences (e.g., school bus driver) and when "point of behavior" message exposure appeared possible (e.g., radio spot for drivers that might be heard on a car radio). Each message, except for one targeted for the elderly, was then developed into a prototype form within the selected media. The elderly message was not developed because the recommended media form was a sound/slide package whose distribution to elderly groups would be problematical These prototype forms (e.g., scripts, storyboards) were then shown to small groups of target audience members for the purpose of audience reaction pretesting. The specific draft products were as follows:

Rural/Suburban Midblock Darts and Dashes	Draft of in-school teacher support and child activities package to accompany previously developed in-school film (Willy Whistle)

Intersection Dash	Child and adult pedestrian oriented TV scripts
Ped Not In Road	Adult pedestrian oriented TV script and draft poster
Backing	Adult pedestrian oriented TV script, draft poster and driver oriented radio script
Disabled Vehicle	Driver oriented TV script plus 2 radio scripts
School Bus	School bus driver pamphlet layout
Mail Box	Draft pamphlet to parents
Big Wheel	Child and parent oriented TV scripts
Child Supervision	Draft pamphlet to parents
Visual Screens	Adult pedestrian oriented TV script

Some of these draft products were selected for production into finished media forms. Child oriented materials were favored because previous work (Blomberg et al., in process) showed that these were more effective. Also favored were materials addressing the more prevalent accident-generating situations. Both the child and the adult pedestrian Intersection Dash scripts were produced as 60 and 30 second TV spots respectively. The general message carried in both of these spots is as follows:

> Green lights, walk signals and crosswalks do not necessarily mean that it is safe to start crossing. Rather, they tell you to stop at the curb and look left-right-left to be sure that it is safe. Always stop at the curb and look before entering the roadway even when the light is green or the signal says Walk.

Also produced was the 60 second Big Wheel spot for children. The message contained in this spot is as follows:

> When you are on a Big Wheel, you move quickly and low to the ground. Drivers can't see you and you can't see oncoming vehicles. Therefore, never ride into the street. Get your Mom or Dad to put a line near the end of your driveway. Never cross the line and ride into the street--no matter what.

This spot was intended primarily for in-classroom use. The spot was incorporated into a composite videotape containing the original Willy Whistle film (see Blomberg et al., in process). The original Willy Whistle film was designed to reduce midblock dart and dash accidents among young children (grades K-3). It shows stopping at the curb; stopping at the outside edge of a parked car; looking left-right-left for traffic; and, if a car is coming, let it pass and look left-right-left again. An introduction to the Big Wheel spot follows this film.

This introduction provides a transition to the spot and highlights the seriousness of Big Wheel accidents. This composite videotape ends with the Big Wheel spot.

The last item produced to finished form was a 15-minute in-classroom film covering many of the selected target accident types for children between the ages of about 7 to 14. This film was designed to deal with the more complex traffic situations encountered by children as they get older and walk beyond their own immediate neighborhood. The following messages are covered in the film:

- At intersections, stop and look left-right-left even if the light is green or the signal says Walk.
- Flashing Don't Walk means don't start crossing, but if you have started keep on going.
- Flashing Walk means that vehicles can turn across your path.
- Look for turning vehicles at intersections and look at the driver not just the car. Also, look for vehicles about to turn right on red.
- Proper procedures for crossing near a school bus.
- Recognize "visual screens" that block your view of oncoming traffic (e.g., parked car or truck, stopped car, bush or tree). If one is present, go out to where you can just see around the visual obstruction, stop and look left-right-left before crossing.
- Open areas in parking lots are really just like roadways. Always stop and look left-right-left before entering an open area, watch for vehicles that might pull across your path into a parking spot and watch for vehicles that are backing out.

Recommendations

This project has developed two types of products. First are the draft and prototype materials which were not develop to finished form. Any or all of these could be further developed into finished public education countermeasures. The most promising of these would be the in-school support package for rural/suburban darts and dashes, the "Backing" TV script and poster, and the "Ped Not in Road" TV script and poster. These items were judged to be the most promising because they deal with prevalent accident situations and the prototype materials were viewed favorably by the target audience focus groups. The draft pamphlet for school bus drivers is also interesting because it is targeted to a very specific audience and thus could be a very cost-effective item despite the fact that there are relatively few school bus accidents.

The second type of product are those items which were produced to finished form. These consist of the two intersection TV spots (child and adult), the Big Wheel spot and the 15 minute in-school film for older children.

The TV materials could be reproduced and distributed now. The 15-minute in-school film could also be distributed though it is recommended that a teacher support package be developed prior to distribution. This package would introduce the teacher to the objective of the film, the instruction provided in the film and suggest discussion questions and class activities that could be used following the film. Also, it is felt that the initial distribution of these materials should be accompanied by a field test or field evaluation of the accident-reduction capabilities of the materials.

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ACKNOWLEDGMENTS

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Media development in this effort relied heavily on the services of Saxe Mitchell, Inc., and Film Reflections, Inc. Saxe Mitchell was represented by Mr. Mitchell Laub and Mr. Joseph Saxe. Film Reflections was represented by Mr. Melvyn Potash. Television and radio scripts were written by Mr. Sherman Beck and Mr. Beck was the Director for the two produced intersection spots. All of these individuals were instrumental in the creative and media development phases of this project.

CHAPTER I.

INTRODUCTION AND PROJECT OVERVIEW

This is the Final Report under Contract No. DTNH22-80-C-07475 between Dunlap and Associates East, Inc., and the National Highway Traffic Safety Administration (NHTSA). The objective of this project was to develop and produce pedestrian safety messages as countermeasures for rural and urban pedestrian/motor vehicle crashes. The work was conducted in two Phases with the first Phase devoted to message development and the second Phase devoted to message production.

This project can be thought of as the third effort in a series of studies designed to reduce pedestrian accidents through public education. The first of these studies (Blomberg and Preusser, 1975) demonstrated that drivers and pedestrians would adopt safer behavior once they knew the specific behaviors and understood the need for these behaviors. This first study was strictly a research effort and did not utilize finished media products or mass distribution of products. The second study (Blomberg, Preusser, Hale and Leaf, in process) developed the most promising messages from the earlier contract into finished media products. These products were then distributed and tested in a series of city-wide tests. In general, the results of these tests suggested that accident reduction could be achieved if the messages received reasonable exposure to the target audiences.

The present project was based largely on the success of these previous efforts. It was designed to employ the same methods as the previous efforts and extend the available produced media products to accident types and accident generating situations which had not yet been addressed.

A. Approach

Development of effective safety messages begins with an understanding of the problems that the messages will be designed to address. Within the context of NHTSA's pedestrian safety program, there were two basic research studies which provided raw data and other inputs to the present development process. The first of these was the work of Snyder and Knoblauch (1971) which provided information on urban pedestrian accidents. Computer records covering approximately 2,000 crashes from 13 U.S. cities were available to the present effort and were analyzed. This data base is referred to as "ORI" in the body of this report. The second data base (Knoblauch, 1977) provided computer and hard-copy records for approximately 1500 suburban and rural pedestrian crashes from six states. This is referred to as RUPED in the body of this report. Each of these "research" studies were particularly important because they provided:

- Behavioral errors--incorrect or "unsafe" behaviors which tend to precipitate accidents because of their relatively high risk.
- Environmental factors--elements in the environment which predispose an accident to occur, i.e., increase the probability that a behavioral error will result in an accident.

- Situational factors--the demographics and socio-economics of the accident victims as well as any temporal characteristics which distinguish the accidents as a group and/or major subgroups within the total problem.

Both the ORI and RUPED studies involved on-site investigation and follow-up interviews in order to obtain the detailed information shown above. Also available were five pedestrian accident data bases consisting of hard-copy police accident reports for pedestrian crashes. The first three of these consisted of all reported crashes for Los Angeles 1973-75, Columbus 1973-76 and child accidents from Milwaukee 1974-76 (see Blomberg et al., in process). All reported crashes from Washington, DC for the year 1976 were available from an unpublished Dunlap study. The last data set consisted of all reported crashes from New Orleans 1973-75 (see Blomberg, Preusser, Hale and Ulmer, 1979). In each of the above data sets, the reports were read by project staff and coded by accident type according to the accident type definitions developed by Knoblauch (1975). These definitions will be used throughout the remainder of this report and are shown in Table 1.

Accident data formed the basis for the message development process. The entire process, however, was based on a model of public education formulated under earlier NHTSA efforts (see Blomberg et al., in process). This model, shown in Figure 1, begins with "Knowledge of the Problem" which is gained through the accident data. From this point, message contents (i.e., specific behavioral advice) are developed and messages (i.e., finished media products) are produced. The model goes on to depict message transmission, knowledge gain, behavioral change and accident reduction. However, it is only the first three steps which were covered in the current effort. In other words, this study was concerned only with developing knowledge of specific accident problems, deriving behavioral advice designed to remedy these problems and producing media materials designed to convey that advice.

It should also be noted that previous work in this line of research had developed principles or concepts to guide message development. These principles are specific to safety-oriented public service messages. Simply, public service presents unique problems to message producers and "selling safety" is itself a difficult process. These principles are listed below:

- The target audience should receive some new piece of safety information (i.e., not just "don't jaywalk," or "be safe").

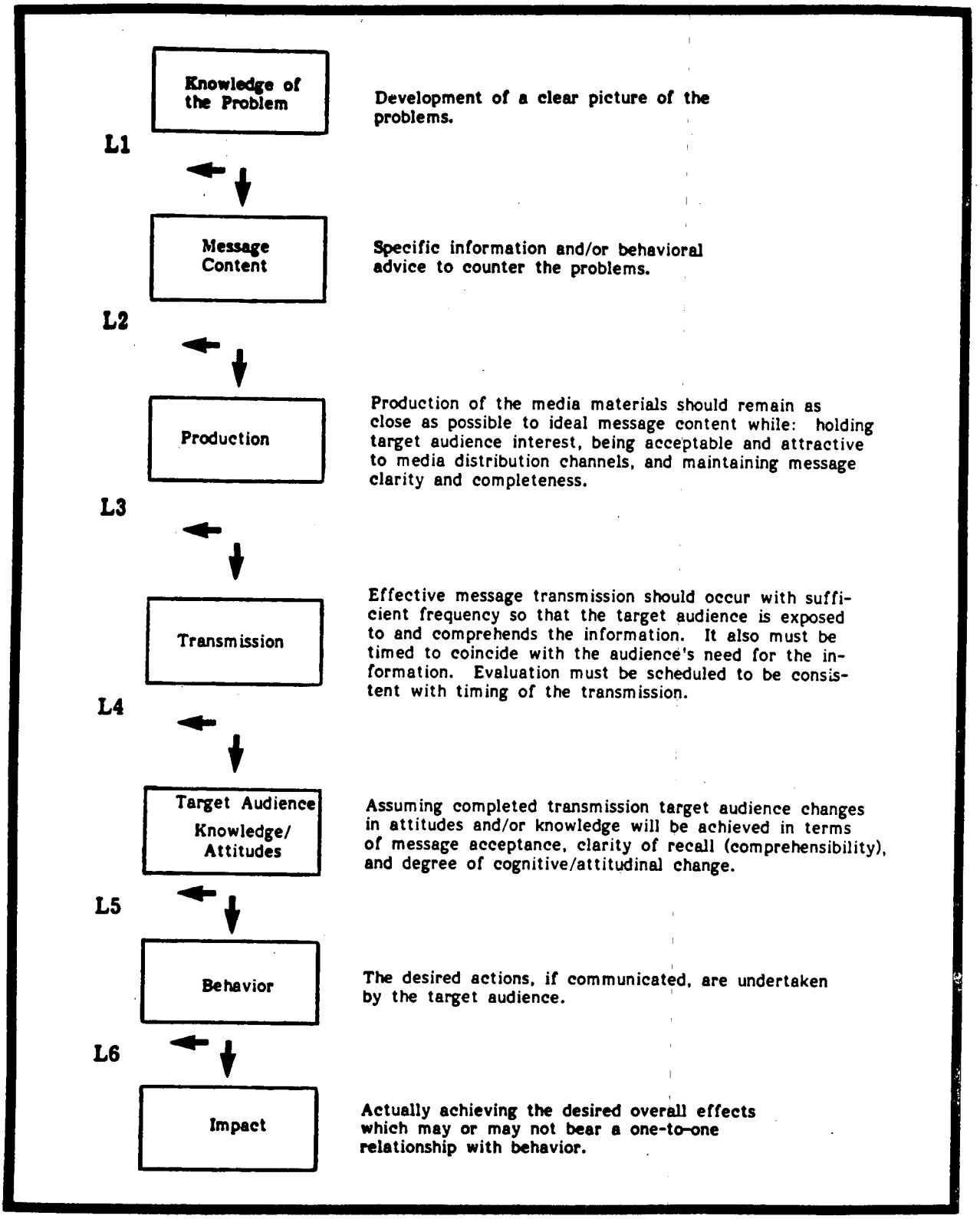
- Presentation should be straightforward such that it is clear that the message is about pedestrian safety.

- The theme of each message should be homogeneous (i.e., integrated, concise).

- The safety information must be "sold" to the audience such that they understand the concepts and are motivated to perform the recommended behaviors.

Table 1. Accident Type Definitions

Symbol	Code #	Definition
DO1	01	DART-OUT, FIRST HALF: Midblock, short-time exposure, crossed less than halfway
DO2	02	DART-OUT, SECOND HALF: Same as 01 except, crossed more than halfway
ID	03	INTERSECTION DASH: At intersection, short time exposure or running
VTM	04	VEHICLE TURN/MERGE WITH ATTENTION CONFLICT: Driver turning and attending to traffic, not pedestrian
PStV	05	PED STRIKES VEHICLE: Ped walked or ran into vehicle and not other type
MT	06	MULTIPLE THREAT: Ped struck by vehicle traveling in same direction as other cars that had stopped for ped
Bus	07	BUS STOP RELATED: Ped struck while crossing in front of bus standing at a bus stop
Bk	08	BACKING-UP: Ped struck by backing-up vehicle but ped not clearly aware of the vehicle movement
Vend	09	VENDOR--ICE CREAM TRUCK: Ped struck going to or from a vendor in a vehicle on the street
Weird	10	WEIRD: Unusual circumstances, not countermeasure corrective
DisV	11	DISABLED VEHICLE RELATED: Ped struck while working on or next to a disabled vehicle
A-A	12	RESULT OF AN AUTO-AUTO CRASH: Ped struck by vehicle(s) or debris as a result of an auto-auto or single vehicle accident (i.e., secondary impact
Mid	13	MIDBLOCK DASH: Not at intersection, ped running but not short-time exposure (i.e., not 01)
Trap	14	TRAPPED: At signalized intersection, ped hit when light changed and traffic started moving (not 06)
TurnV	15	TURNING VEHICLE: Ped struck by turning vehicle (not 04)
PNR	16	PED NOT IN ROADWAY: Ped struck while not in roadway, includes cases where vehicle went out of control (not 07, 08, 11, 12)
Other	17	OTHER: Defined situation as accident type not covered above (e.g., Rear Wheel Truck or Bus, Alphonse-Gaston, Gas Station Related, Rear-view Mirror, Hot Pursuit, Illegal or Anti-Social Act, etc.
NC	18	NOT CLASSIFIABLE: Insufficient data to permit a classification, or undefined situation (not 10)



Note: L1 to L6 refer to losses in message efficiency caused by imperfect performance of each step. A message will have no impact if the losses sum to 100%.

Figure 1. Message Development Process

- o The developed messages should have entertainment value sufficient to:
  - gain and hold attention of the audience
  - maximize air time in a public service announcement
- o Showing completed unsafe behavior should be avoided (e.g., child running all the way into the street without stopping and looking).
- o Showing completed safe or correct behaviors is necessary. The audience should not be asked to work out the correct solutions on its own.
- o Media selection and presentation strategy should be such as to insure reaching the widest possible audience. Multiple exposure to the same individual is secondary to obtaining at least a single exposure to as many members of the target audience as possible.
- o Casting and the selection of shooting locations should be as faithful as possible to the modal accident situation being addressed. This should aid the target audience in identifying with the message.
- o The target audience must clearly and quickly understand that the spot is directed to them.

These principles were closely followed in the present study because it has been shown that messages developed in this way can lead to accident reduction (Blomberg et al., in process).

B. Selecting Target Accident Types

The first task on this project was to identify rural and urban accident types that appeared amenable to safety message countermeasures. The first step in this process was to establish criteria by which accident types could be selected. The criteria were as follows:

1. Previous countermeasure considerations--accident types already effectively addressed by messages should not be considered.
2. Proportion of all pedestrian accidents involved--accident types covering more crashes, urban and rural, should be favored.
3. Current draft or prototype materials available--accident types for which message development had already begun on prior contracts should be favored.
4. Basic countermeasure amenability--accident types with unusual circumstances, unlikely chances for recurrence, limited opportunities to prevent their occurrence, limited amenability of target group to message approach, and/or limited opportunity to measure behavioral changes should not be favored.

5. Narrowness of accident type definition in terms of:

   Precipitating behavior
   Target group
   Physical/environmental factors
   or
   Situation/time/context

   Narrowly defined events are generally easier to address than more amorphous or general accident generating situations.

6. Novelty--heretofore unknown or unpublicized accident types will have inherent appeal.

These criteria were applied to all rural and urban accident types as well as several more generic accident factors such as "Child Supervision" and "Visual Screens." The result was a list of 11 targets for possible message development. This list, with associated accident frequencies and target groups, is shown below:

Topic or Accident Type	Frequency* Urban	Rural	Major Target Groups
Midblock Darts and Dashes (DO1, DO2, Mid Dash)	26.9%	31.0%	Children
Intersection Dash	12.5	9.9	Children, Adults, Drivers
Ped Not in Road	7.5	1.4	Pedestrians, Drivers
Backing	4.3	1.7	Pedestrians, Drivers
Disabled Vehicle	1.4	5.6	Driver Prior
School Bus	N.A.	3.0	Bus Driver
Mail Box	N.A.	1.4	Parents
Big Wheel	(approx. 2%-5%)		Parents, Children
Elderly	(approx. 5%-10%)		Elderly Pedestrians
Child Supervision	13.3	N.A.	Parents
Visual Screens	(approx. 20%)		All

*Urban frequency is an estimated average across several data bases and Rural from RUPED.

A detailed analysis of each of these accident types was performed based on the available accident data. The results of these analyses including recommended safe behaviors for each accident situation are given in the next Chapter of this report.

C. Developing Messages

The next step in the message development process was to derive specific safety messages and execute these messages into prototype media forms. Message derivation was largely an objective process using the accident data to indicate the safe behaviors and specify the target groups. However, accident data can't be used to suggest the most effective media to carry the message (e.g., TV, radio, print) nor can it be used to actually create prototype TV spots or pamphlets. This process was undertaken with the help of Saxe Mitchell, Inc., of Woodbury, NY. Professionals from Saxe Mitchell served as consultants to this project. They suggested appropriate media for each message and drafted prototype materials. These materials appear in the next Chapter of this report.

The materials developed by Saxe Mitchell emphasize television and other audio-visual media. Audio-visuals are substantially more expensive to produce than other media such as print or radio. Nevertheless, each message involves a specific safe behavior to be performed in a specific situation within a traffic environment. Actually showing the behavior in the specific situation was felt to be extremely important and far more effective than discussing it in print or trying to describe it through a radio message. Radio was used only when it would be possible to deliver a message to drivers in their cars at a point in time when the behavior could actually be used. Print was also recommended for point of behavior message delivery (e.g., poster near a parking lot) as well as message delivery to very specific target groups such School Bus Drivers.

Every accident target has its own associated situational parameters such as type of roadway, traffic controls, neighborhood surrounding the accident location, etc. These parameters were specified as part of the accident data analysis and provided to Saxe Mitchell prior to their developing of any messages. To the extent possible, the developed messages reflect these parameters.

It should also be noted that this media development process was guided by two overriding considerations. First, there must be continuous interaction between the media creative people (from Saxe Mitchell) and the accident researchers (from Dunlap). Therefore, Saxe Mitchell was represented at meetings where the specific behavioral advice was developed and agreed upon. Similarly, Dunlap personnel attended initial creative sessions and were involved at every step in the review of draft materials. It is felt that only in this way can messages be developed which truly address the accident problem yet are sufficiently interesting and have sufficient production values to compete in a public service environment. Second, it was important to maintain a realistic expectation as to what can and cannot be accomplished through public education. A 30 second TV spot, for instance, is unlikely to induce major changes in anyone's lifestyle. Similarly, a pamphlet to parents will not likely produce radical alterations in child-rearing practices. However, public education can deliver simple, clear and concise messages to large numbers of people. And, messages which advocate easily understood, simple and convenient (or low cost) behaviors can be effective (Blomberg and Preusser, 1975).

D. Focus Group Testing

The focus group approach was used to gather audience reaction data to the protype message materials. Such an approach provides the most information on potential users' attitudes and opinions about the messages without the need for surveys. This focus group review helped ensure that the intended message was clearly conveyed, that the materials were appropriately constructed and that each message was clearly understood.

The materials consisted of one 30 second and seven 60 second TV spots, two 30 second and one 60 second radio spots, a film and accompanying teaching materials. The TV spots were at the storyboard stage of development and a number of copies were produced. Scripts for the radio spots were provided. Print materials, designed to accompany an already available film were in draft format. These materials were designed to reach several types of audiences. These audiences include:

- o Parents of pre-school children
- o Pre-school children
- o Students, K-3rd grade
- o Students, 5th grade
- o General adult populations
- o School bus drivers

It was determined that three sessions with groups of 4 to 6 people would be used as a base for focus group testing the TV and radio spots with the adults, parents of pre-school children and pre-school children. For the grade school children, it was decided to conduct focus groups with two 1st grade, two 2nd grade and two 5th grade classes in two schools. For the pre-school groups, a local nursery school was contacted and 12 parents (three groups) and 12 pre-school children (two groups) were established. Two public school systems were approached, both located in suburban/rural localities, and permission was obtained to conduct testing.

Each member of the group evaluating the TV spots was provided with a copy of the storyboard. A Dunlap staff member read the script and the audience followed the story line. In the case of the radio spots, the Dunlap staff members merely read the scripts. The group moderator then proceeded to lead the discussion. With regard to the pretest of the film and teaching materials, the 1st and 2nd grade teachers were provided with all the necessary materials and appropriate instructions. Each teacher was asked to use this program in their classrooms for a one-week period. On the fifth day, Dunlap staff members visited the classrooms and conducted the focus group discussions with the students and, subsequently, with the teacher. Summaries of the focus group comments appear at the end of most of the Chapter II sections. Some of the print materials were not fully developed and, thus, focus groups of these materials were not conducted.

E. Message Production

Chapter III of this report describes those prototype messages which were produced into finished media materials. These consist of a 60 second "Big Wheel" spot for children; a 60 second spot on Intersection Dash for children; a 30 second spot on Intersection Dash for adults and a 15 minute in-school film covering several messages.

CHAPTER II.

PHASE I DEVELOPED MESSAGES

As discussed earlier, Phase I of this project was devoted to analyzing accident data and developing safety messages. Sections A through K detail this effort. Each section focuses on one accident type or one potential message target. For each, there is an analysis of the accident problem, possible countermeasure approaches and recommendations. This analysis usually, but not always, led to the formulation of a specific television or print message. Scripts, storyboards and print layouts for each of these messages appear in the appropriate sections. Most of these prototype messages were presented to four groups of the intended target audiences for review and discussion. Summaries of their comments also appear in the appropriate sections.

It should be noted that this Chapter is devoted strictly to the Phase I effort. Only a few of the messages were actually produced in Phase II and the ones that were produced contain changes from the prototype versions shown here. Some of the changes were suggested by the focus groups and others were necessitated by production constraints. The messages actually produced were the Big Wheel TV spot for children and both the adult and child TV spots covering intersection crossings. An in-school film was also produced. Chapter III of this report describes the materials that were produced.

A. Big Wheel/Play Vehicle

Big Wheel/Play Vehicle accidents were assembled from the Detroit, Los Angeles and Milwaukee data bases. Each of these data bases consisted of Police Accident Reports for various time periods from 1973-1978. Data is reported separately by cities in those cases where significant city differences appear to exist. The number of Big Wheel/Play Vehicle accidents in each city's data base were: Los Angeles - 156 (72%); Detroit - 52 (24%); and Milwaukee - 10 (4%).

Definition: Pedestrian struck while riding Big Wheel/Play Vehicle (includes on and off road locations).

Description:

Driver Age - Drivers tended to be both younger and middle aged with median driver age equal to 30 years. Overall, the age group most often involved in Big Wheel/Play Vehicle accidents was 26-35 (23%). The second most frequently involved age group was 21-25, followed by 36-45. In Detroit, the age groups 16-20, 21-25 and 26-35 were equally represented (19% each).

Driver Sex - Males are more often involved in Big Wheel/Play Vehicle accidents than females (71% vs. 29% average, respectively).

Time of Day - The majority of Big Wheel/Play Vehicle events occurred between the hours 1400-1959 (78%). Looking at the finer time breakdowns, the figures were: 1600-1759, 30%; 1800-1959, 29%; 1400-1559, 20%.

Injury Severity - (K = fatal; A = major; B = minor, but visible; C = complained.) Across all three cities, "B" injuries were the most frequently cited for Big Wheel/Play Vehicle events (54% average); followed by "A" (23% average); "C" (15% average); and "K" (4% average). As with child dart-outs, these tend to be high severity events.

Vehicle Action - 83% of the vehicles involved in Big Wheel/Play Vehicle events were going straight; 9% were backing; and 2% each making a right or left turn.

Location - The vast majority occurred in residential neighborhoods (86%). Few occurred with RGA signals or stop signs (3%). However, most occurred on two-way (72%) or one-way (4%) streets as opposed to driveways or parking lots. Nevertheless, many crash event sequences began with a child exiting a driveway.

Pedestrian Age - All three cities reported different age groups as being most predominantly involved in Big / Wheel/Play Vehicle events. In Los Angeles, the predominant age group was 5-6; in Detroit, 7-9; and in Milwaukee, 1-4. The least predominant child age group, in all three cities, was 10-14. Median age was 6.0 years.

Pedestrian Sex - Males are overwhelmingly more involved in Big/ Wheel/Play Vehicle accidents than females (83% vs. 17%).

Behavior (accident generating):

Short-time exposure—most events occurred within the parameters of the traditional "Dart-Out" accident type (sudden appearance in the roadway). Typically, children rode out, rapidly, from between parked cars.

Drivers did not have enough detection time to avoid accident.

Improper, inadequate or distracted pedestrian search—looking where he is going not for oncoming vehicles.

Inconspicuous (poor target) — young children riding small toys which are low to the ground.

Countermeasure Concepts:

Big Wheel/Play Vehicle Flag (similar to bike flags).

Parents—don't allow children to ride toys in the street or in areas that have a direct line to the street.

If children do ride in areas that have access to the street, attempt to barricade that area from the traveled road.

Recommendations:

Two Big Wheel messages were proposed. The first is intended for parents of children who ride Big Wheels:

Driveways can be very dangerous play areas because they give easy, direct access to the roadway. It seems that smooth driveways that slope toward the roadway are most dangerous. Children riding Big Wheels can get up a great deal of speed and find it very difficult to stop before entering the street. In fact, often the children don't even realize that they are going into the street (they simply expand

their play area) and really don't care. The parent has several possibilities to prevent an accident: (1) forbid children to use their Big Wheels on the driveway; (2) always supervise continuously while children are playing in the driveway; and (3) place barriers at the mouth of the driveway. Under no circumstances should a Big Wheel be allowed to enter the street and vehicles should not be allowed to enter or leave a driveway when children are riding Big Wheels.

The second is intended for the children, who, despite their young ages, might be reached by a safety message:

When you are on a Big Wheel, you move quickly and low to the ground. Drivers can't see you and you can't see oncoming vehicles. Therefore, never ride your Big Wheel in the street or in a parking lot, or in an alley or anyplace where cars can go.

These two messages were drafted as TV spots and appear on the following pages along with a summary of focus groups comments.

SAXE MITCHELL INC.

Crossways Park North/Woodbury, L.I.,
New York 11797 (516) 364-9595

CLIENT NHTSA

MEDIA TV :60

DATE

JOB NO. BIG WHEEL - PAINTING THE LINE

COPY

#1: :60 BIG WHEEL - PAINTING THE LINE

1. VERY TIGHT: Looking down into a can of bright, light yellow paint as it is being stirred.	Would you invest a dollar in paint and . . .
2. FULL ON: Watching a man (or woman) starting to paint a line about ten inches wide near the end of the driveway.	. . . a half hour of time to save your child from a serious injury?
3. FULL ON a Cop picking up a smashed big wheel.	Every year hundreds of very small children are killed or injured when they ride out into the street.
4. Kid riding full-tilt on a driveway toward the camera. He keeps coming till he fills and blots out the screen.	Driveways seem like part of home, but small children don't know where home ends and . . .
5. INSIDE A CAR: From the driver's POV child is barely visible.	. . .streets begin.
6. PARENT (from Scene 2) with the line just about half painted.	A line painted across your driveway could save <u>your</u> children . . .
7. PARENT (with the line completed) teaching a kid on a big wheel to <u>stop</u> before reaching the line.	. . . if you teach them <u>never</u> to cross it, whether you're watching them or not.
8. Parent, with kid on big wheel teaching him to turn before he gets to the line.	Teach them to stop or turn before they get to the line.
9. PARENT, having the kid chase him, making him turn before getting to the line.	. . . make a game out of it . . .

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CLIENT NHTSA

MEDIA TV :60

DATE

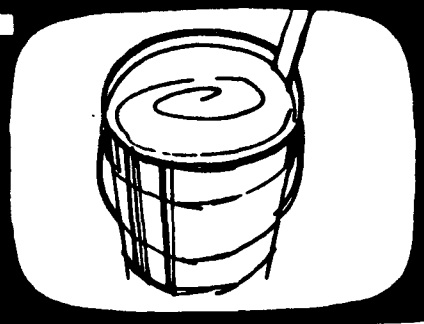
JOB NO. BIG WHEEL - PAINTING THE LINE

COPY

#1 :60 BIG WHEEL - PAINTING THE LINE

10. PARENT making the kid stop before reaching the line.	Repeat the lesson till it gets to be a habit that will stay with them.
11. Different parents, different kids, all stopping or turning at a painted line.	Teach it . . . repeat it . . . reinforce it . . . Train them never to cross the line, and . . .
12. FROM A KID'S POV: Watching cars whizzing by - LOW and CLOSE.	. . . show them why it's important not to.
13. MOTHER working in garden (or something) keeping half an eye on a kid riding a big wheel in the driveway.	Watching them may not always be enough. They may forget, but . . .
14. FROM KID'S POV as he rides up to a line, sees it, stops and turns.	. . . a habit can be hard to break.
15. CLOSE, looking down into a can of paint being stirred.	Even if paint for the line costs more than a dollar . . .
16. PARENT painting the line.	. . . and it takes more than a half hour to do it . . .
17. PARENT holding child watching as cars go by.	. . . wouldn't it be worth it?

#1 PAINTING THE LINE TV :60



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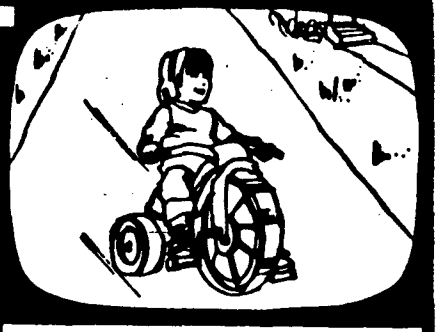

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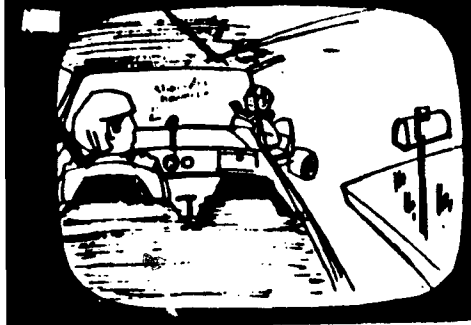

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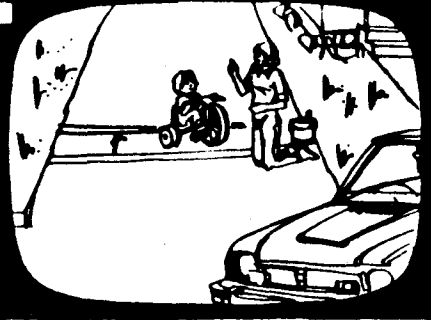

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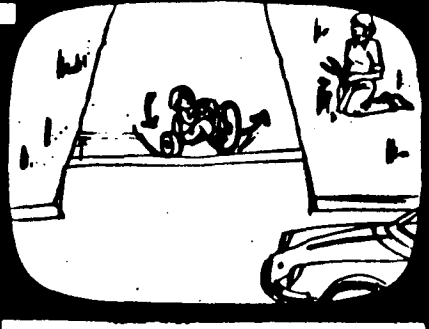

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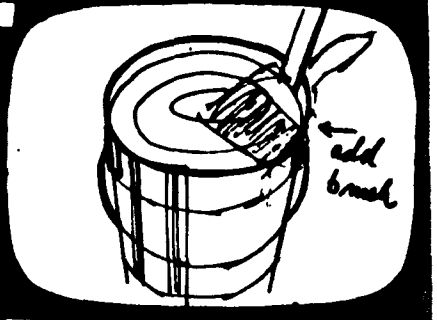

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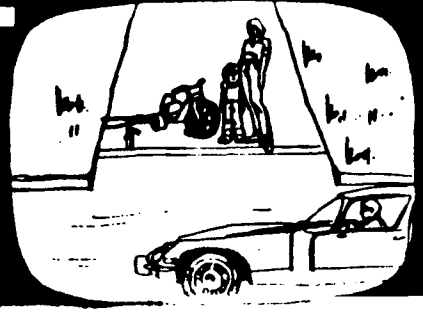

SAXE MITCHELL INC

FOCUS GROUP

SUMMARY AND CONCLUSIONS

#1 Big Wheel - Painting the Line (TV: 60 seconds)

The parents understood the message as well as the need for such precautions. Several parents felt that the message was practical and that they would paint a line on their driveway. However, many of the parents live in less traditional neighborhoods and do not have driveways which can be painted. These parents felt that the message seemed directed to persons in cities or tight suburbs more so than themselves. Nevertheless, there was total agreement that the idea of a boundary was excellent and would work even if the specific message, i.e., painting a line was inappropriate. Several individuals mentioned other means of setting boundaries which would work for them.

Most of the participants felt that the message was complete and accurate. There was some confusion since the copy did not obviously agree with the pictures in frames 5 and 6. One father believed that something should be said to the effect that parents should explain the dangers to their children rather than simply giving the order not to go beyond the line.

Two mothers were concerned with the word "game" as used in the copy. They emphasized that young children are allowed to change the rules when playing games and this tendency could carry over to the use of the line. A second concern, felt by three of the parents, was that some people might rely on the line totally. These parents felt that fear tactics would be more potent.

All but two of the participants felt that the commercial was clear and well presented. The problem was with the copy; it was too long and lacked vitality.

Although Group 3 believes that involving the schools would be the most effective means, the overall opinion was that TV is an appropriate medium to use for this message.

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CLIENT NHTSA

MEDIA TV :60

DATE

JOB NO. BIG WHEEL - LION

COPY

#2 :60 BIG WHEEL - LION

1. EXTERIOR DRIVEWAY. DAY. FULL SHOT: A real live mean-looking lion pacing across the end of a driveway. (The camera is at the level of a kid riding a big wheel.)	(SOUND: SYNC, the lion roars) NARRATOR: You won't really find a lion at the end of your driveway.
2. FROM A KID'S POV: Looking at the driveway as he rides his big wheel.	But you could find something that would hurt you even more:
3. FROM KID'S POV: Cars going by, CLOSE, so they can be felt.	Cars . . . lots of them . . . going by much too fast to stop.
4. INTERIOR CAR (GOING FROM LEFT TO RIGHT): From the driver's POV, looking straight ahead as a kid on a big wheel starts to come out of a driveway.	If you were driving one of those cars, you couldn't see yourself if you came out of your driveway all of a sudden.
5. INTERIOR CAR (GOING FROM RIGHT TO LEFT): Another kid on a big wheel comes out of a driveway.	You look pretty small to a person who's driving a car. So stay out of the lion's country.
6. Kid standing with his big wheel watching his mother paint a line across the driveway.	Ask your Mom or Dad to paint a stripe on your driveway to show you where it starts . . .
7. Kid on a big wheel drives up to a completed line and turns away.	. . . then never cross the stripe, no matter what!
8. FULL SHOT: The lion, from the kid's POV.	Make believe there's a very unfriendly lion on the other side of the stripe.
9. FROM BEHIND THE KID as he and the lion look at each other across the stripe. (Both are well back on their respective sides.)	He won't come into your country if you don't go into his.

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CLIENT NHTSA

MEDIA TV :60

DATE

JOB NO. BIG WHEEL - LION

COPY

LION cont.

10. A kid rides up and stops before he gets to the stripe.

Even if you cross the stripe only once, there may be a car coming that

11. FROM KID'S POV, CLOSE: Cars going by.

. . . could hurt you very badly.

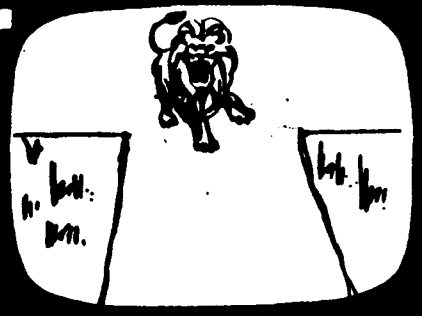
12. Kid, with big wheel, watching as his father paints a stripe across the driveway.

So get your Mom or Dad to paint a stripe across your driveway . . .

13. FROM THE KID'S POV: The lion on the other side of the stripe.

. . . and think about a lion on the other side. Then, don't cross the stripe . . . ever!

#2 BIG WHEEL TV :60



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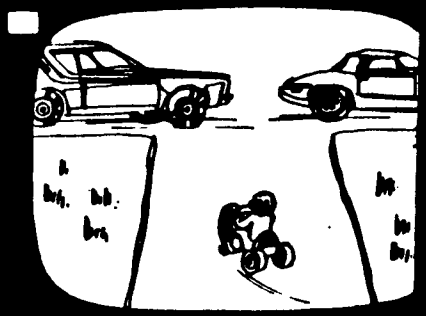

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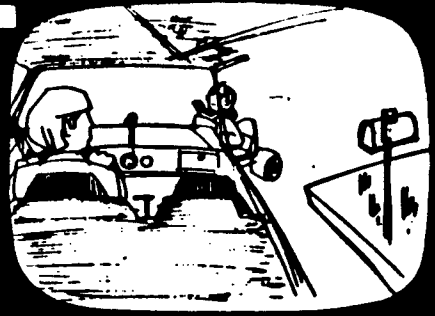

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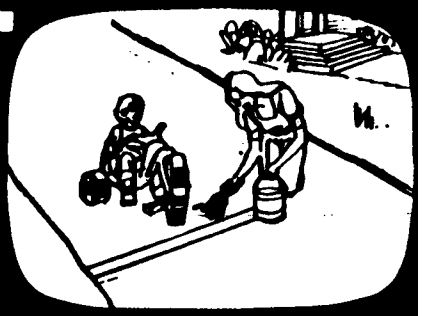

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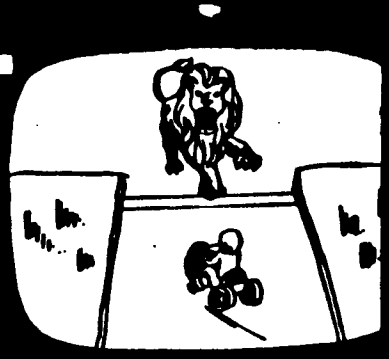

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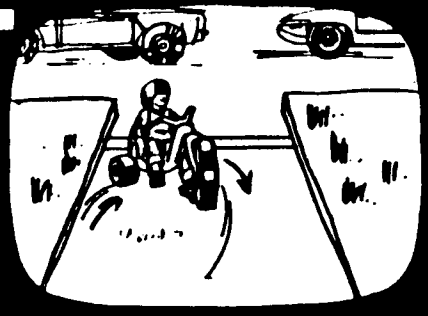

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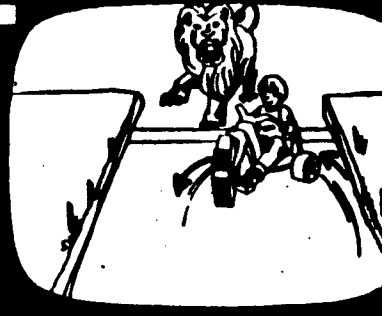

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SAXE MITCHELL INC.

FOCUS GROUP

SUMMARY AND CONCLUSIONS

#2 Big Wheel - Lion (TV: 60 seconds)

The children had no trouble understanding the message. They understood that a line should be painted on the driveway, that they could ride to but not over that line, and that the danger was the likelihood of getting hit by a car. They liked the idea of the lion; they weren't afraid of it but found it attention-getting. The language and interest level seemed perfect for this age group.

There seems to be a need for this type of message. Each of the children has a bike and most ride in their driveways. However, they seem unaware of the danger involved and have received little or no training in riding safely.

B. Backing

The paragraphs which follow cover the Backing accident type and report two separate analysis approaches. First, a sample of hard-copy Backing accidents (N=131) was drawn from the Los Angeles and RUPED data files. It was found that the reports appeared to cluster in the following manner:

Parking Lot - typically backing from parking space (N=44, 34% of sample)

Driveway - typically exiting residential drive (N=37, 28% of sample)

On-Road - backing in traveled lane (N=32, 24% of sample)

On-Road - enter/exit parking space (N=13, 10% of sample)

Analysis for each of these clusters is reported below. Second, available computer files were run to provide statistical information based on Backing accidents in Los Angeles, New Orleans and Washington, D.C. Highlights of this statistical information appear at the end of this Background section.

Definition: Vehicle backing with driver unaware of pedestrian(s) in its path and pedestrian(s) unaware of vehicle maneuver.

Description: Parking Lot Events, based on hard-copy analysis of 44 reports from Los Angeles and RUPED.

Driver Age - 34% of drivers involved in backing accidents in parking lots were 20-29 years of age; 27% were classified as hit and run, 9% in the 60 plus age group, 7% in the 40-49 age group, 7% were prior drivers and 5% were in the 15-19 age group.

Driver Sex - Males are more often involved in backing accidents in parking lots than females (55% vs. 11%).

Point of Impact - The point of impact with the pedestrian(s) in 46% of the backing accidents was the middle of the rear bumper, 20% each with the passenger's side rear bumper and driver's side door, followed by 7% each with the driver's side rear bumper and passenger's side door.

Vehicle Maneuver - 80% of the backing accidents occurred when the vehicle was backing straight, 14% when backing to the right and 4% when backing to the left.

Time of Day/Day of Week - Backing events in parking lots are most likely to occur during the hours 0600-1659 (57%) followed by the hours 2100-0550 (27%) and 1700-2059 (16%). However, if time of day is looked at in terms of day vs. night (0600-1659 vs. 1700-0559) events occur almost equally (57% vs. 43%, respectively). Tuesday, Friday and Saturday are the

most likely days for these events to occur (18% each), Sunday and Monday the next most likely (14% each), followed by Thursday and Wednesday (11% and 7%, respectively).

Pedestrian Age - 23% of pedestrians involved in backing accidents in parking lots were in the age group 60 plus; 18% in the age group 30-39; 11% each in the age groups 15-19, 20-29 and 50-59; 9% each in the age groups 0-4 and 40-49; 5% in the age group 5-9; and 2% in the age group 10-14.

Pedestrian Sex - Males and females are involved in backing accidents in parking lots almost equally (52% vs. 48%, respectively).

Type of Vehicle - 77% of all vehicles involved in backing accidents in parking lots were cars, 9% vans and 7% each for trucks and pick-ups.

Type of Parking Lot - 23% of the backing accidents took place in commercial parking lots; 11% in shopping center parking lots; 7% each in bar or restaurant and apartment building parking lots; 5% in fast food (i.e., McDonald's) parking lots; 2% each in church, motel, industrial, outdoor theater and garage structures, and 36% in unspecified parking lots.

Behavior (accident generating):

Drivers—

Exiting vehicle with engine running—prior driver events (vehicle slips out of gear)

Most drivers just don't see peds: "I didn't see him until someone told me I hit him."

Driver attention conflict—driver concerned about oncoming traffic and parked vehicles on either side

Pedestrians—

Most peds just not looking; those that are, don't expect car to back up ("I thought he saw me").

Inattentive—peds do not see the parking lot environment as a roadway environment (moving traffic despite low speeds)

Countermeasure Concepts:

Conspicuous bags for purchases from stores in shopping center—

brightly colored
retroreflective

Conspicuous shopping carts—

cart flags
brightly colored
retroreflective

Drivers—walk completely around vehicle before exiting parking space

Peds—LISTEN for engine noise; LOOK for back up lights; become attentive to the traffic environment—use the same rules—remember, parking lots have moving traffic

* * * * * *

Description: Driveway events, based on hard-copy analysis of 37 reports from Los Angeles and RUPED.

Pedestrian Age - 32% of pedestrians involved in Driveway accidents were in the age group 0-4; 27% in the age group 60 plus; 22% in the group 5-9; 11% in the 20-29 age group; and 3% each in the age groups 10-14, 15-19 and 50-59.

Pedestrian Sex - Males are more likely to be involved in driveway events than females (62% vs. 38%, respectively).

Time of Day - Driveway enter/exit events are most likely to occur during the hours 0600-1659 (65%), followed by the hours 1700-2059 (30%) and 2100-0550 (5%).

Behavior (accident generating):

Drivers—

Not checking for peds around entire vehicle

Not slowing down when reaching intersection of sidewalk and driveway

Unaware of potential peds (children playing in or near yard)

Pedestrians—

Playing in or near yard; unaware of moving vehicle (preoccupied)

Most incidents involve peds walking on sidewalk intersecting with driveway—they think drivers backing from driveway see them and will stop

Countermeasure Concepts:

Drivers—

Slow down when reaching the point where driveway and sidewalk intersect and check for peds

Check entire area around vehicle before backing

Check for children playing in or near driveway/yard

Peds—

Slow down at driveways that intersect with sidewalks—LISTEN and LOOK for backing vehicles

Avoid recreational activities in driveway

* * * * * *

Description: On-road, backing in traveled lane, based on hard-copy analysis of 32 reports from Los Angeles and RUPED.

Pedestrian Age - 38% of pedestrians involved in backing accidents on-road in the traveled lane were in the age group 60 plus; 16% in the age group 20-29; 12% in the age group 30-39; 9% each in the groups 5-9 and 40-49; 6% each in the groups 10-14 and 15-19; and 3% in the group 0-4.

Pedestrian Sex - Females are slightly more likely to be involved in this accident type than males (56% vs. 44%, respectively).

Time of Day - Backing accidents, on-road, in the traveled lane are most likely to occur during the hours 1700-2059 (41%), followed by the hours 0600-1659 (34%) and 2100-0559 (25%).

Behavior (accident generating):

Drivers—

Driver attention conflict—concerned with other vehicles in the roadway

Pedestrians—

Crossing street between parked cars (events split almost evenly between intersection and non-intersection locations)

Countermeasure Concepts:

Drivers—

When backing, look over both shoulders for peds

Back slowly—check for peds crossing

Pedestrians—

Cross only at intersection locations

LOOK and LISTEN for cars backing

* * * * * *

Description: On-road parking space exit/enter, based on hard-copy analysis of 13 reports from Los Angeles and RUPED.

Behavior (accident generating):

Drivers—

Driver attention conflict—drivers concerned with maneuvering vehicle in or out of parking space. Most events occurred in parallel parking situations, and nearly all involved vehicle entering parking space.

Most drivers unaware of pedestrians (possibly looking over right shoulder only)

Backing rapidly

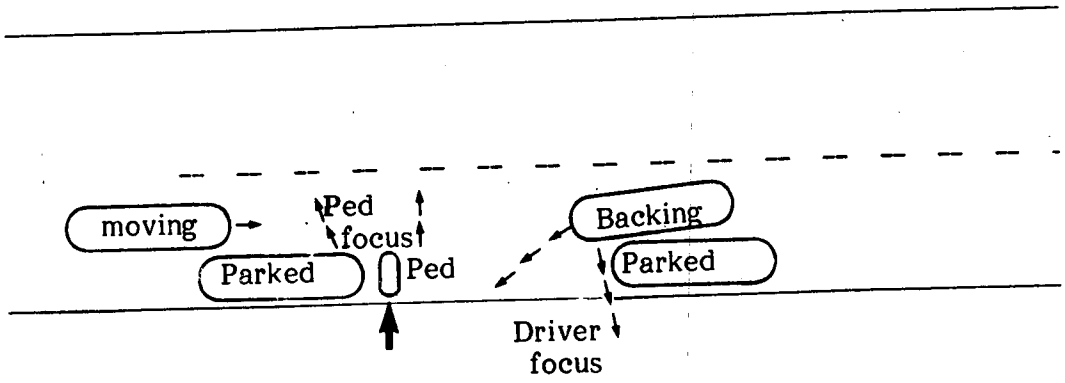
Pedestrians—

Crossing behind vehicle performing parking maneuver

Most pedestrians crossing road at non-intersection locations

Both Drivers and Pedestrians—

Attention conflict—the diagram below illustrates the attention conflicts experienced by both driver and ped—each focusing on targets opposite each other.



Countermeasure Concepts:

Drivers—

Look over BOTH shoulders before backing into parking space

Pedestrians—

Cross in the right half of an open parking space so that you will be in the line of sight of a backing vehicle entering parking space

* * * * * *

Backing accidents were assembled from the Los Angeles, Washington, D.C. and New Orleans data bases. Each of these data bases were formed by retrospective coding of Police Accident Reports. The specific reports reviewed were all reported pedestrian accidents for 1973-1975 in Los Angeles, 1976 for Washington, D.C. and 1973-1975 for New Orleans. Unweighted averages for Backing accidents in the three cities were calculated by adding the appropriate percentages and dividing by three. Data is reported separately by cities in those cases where significant city differences appear to exist. The number of Backing accidents in each city's data base were: Los Angeles-441 (71%); Washington-58 (9%); and New Orleans-119 (19%).

Driver Age - Most drivers involved in backing accidents were in the age groups 26-35 and 20-25 (22% and 15% average, respectively); followed by the age groups 36-45, 46-55, 56-65, 16-19 and 65 plus (presented in order of frequency) with the remainder (an average of 33%) classified as unknown.

Driver Sex - Males are more often involved in backing accidents than females (62% vs. 19% average, respectively).

Time of Day/Day of Week - Backing accidents are most likely to occur during the hours 1200-1759 (49%, average); followed by the hours 0600-1159 (26%, average); 1800-2359 (22%, average); and 2400-0559 (3% average). When looked at in terms of day vs. night (0600-1759 vs. 1800-0559), an average of 75% of the events occur during the daylight hours as compared to an average of 25% during the nighttime hours. Day of week varied significantly across the three cities. In Los Angeles, Friday and Thursday were the most likely days backing events occurred (17% and 16%, respectively). In New Orleans, Saturday and Tuesday were the most likely days (18% and 16%, respectively). In Washington, Tuesday and Monday the most likely (22% and 19%, respectively).

Pedestrian Age - The age group 25-34 had the highest percentage of accidents in two of the three cities (New Orleans and Washington, 21% each). In Los Angeles, the age group 65 plus had the highest percentage (17%). When averaged across the three cities, backing accidents occur more frequently in the 25-34 and 65 plus age groups (19% and 14% averaged, respectively).

Pedestrian Sex - Males are slightly more likely to be involved in backing accidents than females (54% vs. 46%, averaged, respectively).

Type of Vehicle - An average of 74% across all three cities of all vehicles involved in backing accidents were cars; 14% (average) were trucks; 11% (average) were classified as other; and 1% (average) were taxis.

Type of Road - No data available for Washington, D.C. The majority of backing accidents in New Orleans and Los Angeles occurred in off-road locations (i.e., driveway, parking lot, alley, etc.). In New Orleans, the second most likely location for backing accidents was on one-way streets, followed by divided roadways and two-way roads. In Los Angeles, the second most likely location for backing accidents was on two-way roads followed by one-way streets.

Locale - No data available for Washington, D.C. An average of 58% of the backing accidents in New Orleans and Los Angeles occurred in commercial areas and an average of 28% took place in residential areas.

Accident occurred at intersection/crosswalk - An average of 79% of backing accidents occurred at non-intersection locations. Similarly, an average of 91% of backing accidents occurred at non-crosswalk locations.

Culpability - No data available for New Orleans. An average of 74% of the accidents were judged as driver culpable; 16% both ped

and driver culpable; 4% the ped culpable and 2% as neither culpable.

Second Accident Type - The most frequently cited second accident type in all three cities was "Non-Pedestrian Activity in the Roadway" (4% average) followed by "Probable Non-Accident" (3% average).

Recommendations:

It was felt that at least two messages could be used to address the Backing accident type. The first is directed to pedestrians in the parking lot situation:

Parking lots are an extension of the roadway. There are moving vehicles and therefore the situation is dangerous for pedestrians. Much of the danger seems to be from backing vehicles. Backing drivers have many attention conflicts. Indeed, they may be overloaded and fail to see a pedestrian. Even if the driver is paying particular attention to pedestrian traffic, they may fail to see a pedestrian if that pedestrian is in their "blind spot." Therefore, it is up to the pedestrian to prevent these accidents. They must: (1) be aware, parking areas are extensions of the roadway; (2) look for signs of a possible vehicle--driver in vehicle, lights on (especially back up lights), motor running, exhaust. If any of these signs exist, don't walk behind the vehicle until you are sure of the driver's intentions.

The second message is directed toward drivers who, in particular, are backing out of driveways:

Backing your vehicle is always a dangerous maneuver. Despite the slow speeds, it is very difficult to see what is behind your vehicle and pedestrians don't expect you to back into them. Always search as carefully as you can behind your vehicle before backing. Use special caution when backing out of driveways: (1) look behind your car before you get in, pay particular attention to any children that may be nearby; (2) look again before you start backing and back up slowly; (3) come to a full stop and look again before the sidewalk or other area where pedestrians might cross behind your vehicle; and (4) ifyou must back out when children are present, maintain visual contact with the children as you back and be prepared to stop should one move behind your vehicle.

The first of these messages was drafted as a TV spot with two posters. The second was drafted as a radio spot for drivers. These messages, along with their respective focus group comments, appear on the following pages.

SAXE MITCHELL INC.

Crossways Park North/Woodbury, L.I., New York 11797 (516) 364-9595

CLIENT NHTSA

MEDIA TV :60

DATE

JOB NO. BACKING

COPY

#3 :60 BACKING

1. FULL ON the back end of a car in a parking lot space. All of a sudden the back-up lights go on and it shoots out toward the camera, zoom in to completely fill the screen.	Too many people forget that the back end of a car can be just as dangerous as the front!
2. Another car, halfway out of a curbside parking place. The driver completes cutting his wheels and is just about to start forward. A woman, in the street, steps back up onto the curb.	Nobody using common sense would intentionally step in front of a car that's obviously about to go forward, or . . .
3. CLOSEUP of the same woman, looking out toward the street, watching the traffic.	. . . try to cross through a stream of moving traffic.
4. FROM HER POV: A fairly heavy stream of traffic going by.	But the danger can be just as great . . .
5. CLOSE, LOW ANGLE: The cars going by.	. . . when those same cars go backwards.
6. CLOSEUP: The same woman, as she turns her head in the opposite direction.	. . . and you have to be alert for less obvious warning signals:
7. FULL ON: The back-up lights of a car about to back into a curbside parking place.	. . . back-up lights . . .
8. FULL ON: The tail-pipe of a car with exhaust coming out of it, as the back-up lights go on.	. . . engine exhaust . . .
9. Looking into a car to see the driver looking back.	. . . a driver looking behind the car . . .
10. FULL ON A car, at the end of a driveway with its backing lights on.	. . . <u>situations</u> in which backing is likely.
11. IN A PARKING LOT: A car stops to allow a pair of pedestrians to cross in front of it. (They took a <u>slight</u> chance, but got away with it.)	Cars are designed for drivers to see what's in front of them.
12. INSIDE A CAR, TIGHT, as the shift lever is moved to "R".	

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Crossways Park North/Woodbury, L.I.,
New York 11797 (516) 364-9595

CLIENT NHTSA

MEDIA TV :60

DATE

JOB NO. BACKING

COPY

#3 :60 BACKING cont.

13. FULL ON: The back-up lights of the car.	
14. INSIDE THE CAR, looking out to the rear as it starts to back.	. . . visibility to the rear is severely limited, and if you're behind the car . . .
15. OUTSIDE THE BACKING CAR, as a pedestrian, coming from the left stops just in time.	. . . the chances are against the driver seeing you . . .
16. INSIDE THE CAR: The driver turns back to check the clearance of his left front fender.	. . . even if he's looking. He's in an awkward position, and there's . . .
17. FROM THE DRIVER'S POV: The clearance to the left front of the car.	. . . a lot more to look for . . .
18. FROM THE DRIVER'S POV: The clearance to the right front of the car.	. . . and think about.
19. CLOSEUP of a different pedestrian watching a car.	So you do the looking and thinking . . .
20. A stopped car, about to start backing into a curbside parking place. (Zoom) The back-up lights are on.	Obviously, this driver is going to back up.
21. A car, with driver, in a parking lot space. His engine is on, he is looking back, and his back-up lights are on. (Zoom to exhaust)	Obviously, this driver is going to back out.
22. PARKING AREA. A car, with driver, back-up lights on, about to start backing out.	When you see the signs that a car is about to go backwards, don't get behind it . . .
23. FULL ON: The rear end of a car, with its backing lights on, as it backs up into the camera to fill the screen.	The back end can be just as dangerous as the front!

#3 BACKING TV :60

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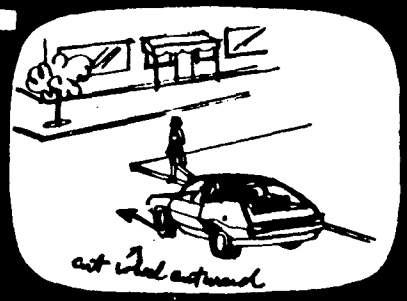

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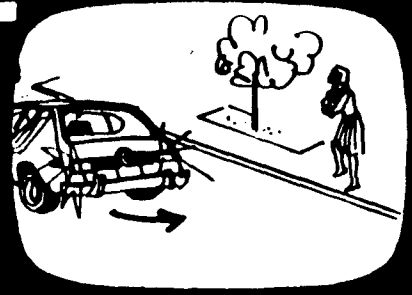

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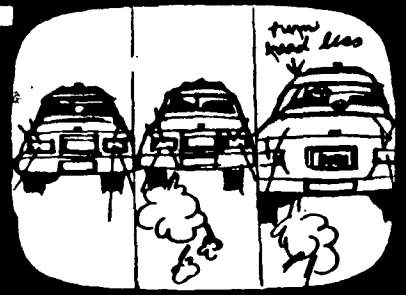

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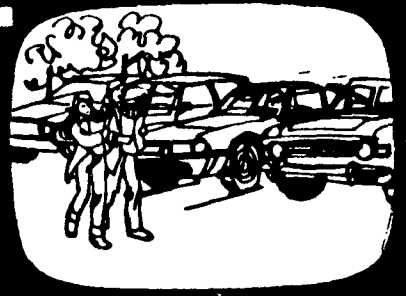

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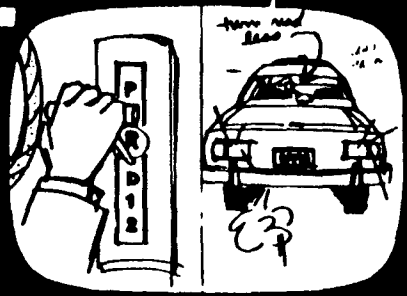

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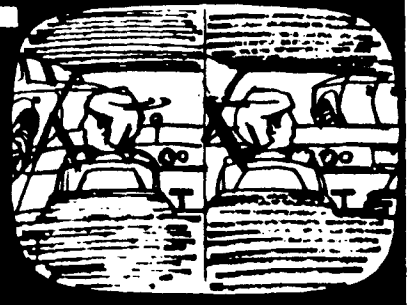

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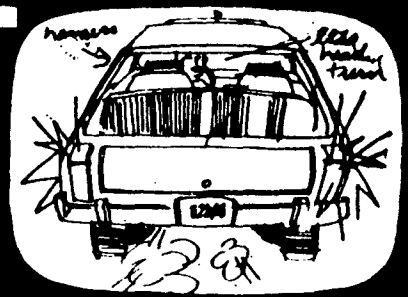


SAXE MITCHELL INC.

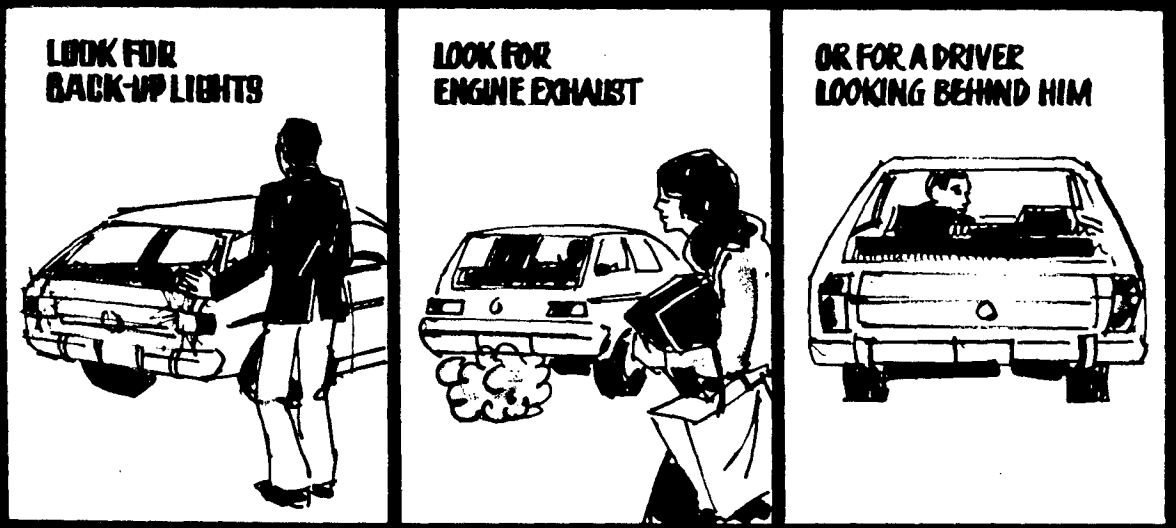
THE PARKING LOT IS A PEDESTRIAN ACCIDENT TRAP.

Always look out for moving vehicles or vehicles about to back out.

WHENEVER...WHEREVER YOU WALK BEHIND A PARKED CAR

LOOK FOR BACKING OUT CARS

WARNING SIGNALS



THE BACK END OF A CAR CAN BE JUST AS DANGEROUS AS THE FRONT

FOCUS GROUP

SUMMARY AND CONCLUSIONS

#3 Backing (TV: 60 seconds)

The test audience felt that this spot contains an important message. They thought that it would increase pedestrian awareness of the dangers they encounter when walking in a parking lot.

They considered the safety measures suggested (i.e., watch for the signs of a car backing up--exhaust, back-up lights) to be good. They were less sure that the advice to look for a driver in the car was practical.

The test audience noted that most people in parking lots rely on the driver to see them and feel that the pedestrian has the right of way. They hoped that this spot would encourage people to think about the dangers and realize they have to look out for themselves.

The test audience felt that the message medium under consideration would be appropriate and felt that the presentation is simple and direct. They expressed the hope that this spot would get good exposure on TV.

SAXE MITCHELL INC.

Crossways Park North/Woodbury, L.I.,
New York 11797 (516) 364-9595

CLIENT NHTSA

MEDIA Radio :30

DATE

JOB NO. DRIVER BACKING

COPY

#4 :30 RADIO - DRIVER BACKING

AXR: Did you know where your children were when you backed out of your driveway this morning? They could have been right behind you! Make it a rule to check carefully around the car before you back out. Better yet, if you know your children are out, teach them to stand in front of the car and wave as you go . . .

KIDS: (IN UNISON) So long, Dad . . . Have a good day, Dad . . . 'Bye, Daddy . . .

AXR: If you can see them in front of you, you can't hit them behind you. Then look to the rear and back out slowly . . . especially before you come to a sidewalk. This gives everybody a margin of safety.

MAN #1: I call that being a good neighbor . . .

MAN #2: Me too . . . have a good day!

FOCUS GROUP

SUMMARY AND CONCLUSIONS

#4 Driver Backing (Radio: 30 seconds)

This radio spot was well received by all members of the test audience. They felt that it conveyed an important message and that the prescribed safety measures were practical.

Some members in two of the groups had difficulty understanding the instruction to be careful before backing out over a sidewalk. This part of the message did not come through clearly.

Overall, however, the test audience liked the spot and thought that radio would be an effective way to present the message.

C. Pedestrian Not in Roadway

The paragraphs which follow cover the pedestrian Not in Roadway accident type and report separate analysis approaches. First, a sample of hard-copy Pedestrian Not in Roadway accidents (N=89) was drawn from the Los Angeles and RUPED data files. It was found that the reports appear to cluster in the following manner:

Parking lot (N=43)

All other off road (N=46)

Analysis for each of these clusters is reported below. Second, available computer files were run to provide statistical information based on Pedestrian Not in Roadway accidents in Los Angeles, New Orleans and Washington, D.C. Highlights of this statistical information appear at the end of this Background section.

Definition: Pedestrian struck while not in roadway; includes cases where vehicle went out of control.

Description: Parking lot events, based on hard-copy analysis of 43 reports from Los Angeles and RUPED.

Driver Age - 49% of all drivers involved in parking lot accidents were classified hit and run; 14% were in the age group 20-29; 9% in the 60 plus age group; 7% in the 30-39, 40-49 and 15-19 age groups.

Driver Sex - Males are more often involved in parking lot events than females (35% vs. 14%).

Time of Day/Day of Week - Most parking lot events occur during the hours 0600-1659 (51%), followed by 1700-2059 (33%) and the hours 2100-0559 being least likely (16%). However, if time is looked at in terms of day vs. night (0600-1659 vs. 1700-0559) the likelihood of an accident is almost equal (51% vs. 49%, respectively). Saturday and Sunday are the most likely days parking lot accidents occur (19% each), followed by Friday (16%), Monday (14%), Wednesday and Thursday (12% each) with Tuesday being the least likely day (9%).

Pedestrian Age - 30% of all pedestrians involved in parking lot accidents were in the age group 20-29; 14% in the age group 30-39; 9% in the 0-4, 15-19, 50-59 and 60 plus age groups; 7% in the 5-9 and 10-14 age groups with the remaining 5% in the 40-49 age group.

Pedestrian Sex - Males are more often involved in parking lot events than females (70% vs. 30%).

Type of Parking Lot - 21% of these events took place in commercial parking lots; 12% in supermarket parking lots; 9% in apartment parking lots; 5% each in outdoor theater and public parks parking lots; 2% each in underground garage, sports stadium, fast food, church, restaurant and school parking lots; and 35% in unspecified parking lots.

Behavior (accident generating):

Drivers--

Most drivers just don't see peds: "I didn't see him until someone told me I hit him."

Driver attention conflict--driver concerned about other traffic in the parking lot

Most events occur when vehicle is traveling too fast for conditions

Pedestrians--

Most peds just not looking; those that are don't expect vehicle to hit them ("I thought he saw me.")

Inattentive--peds do not see the parking lot environment as a roadway environment (moving traffic despite low speeds)

Majority of events involved pedestrians running or walking from between parked vehicles

Standing, sitting or working on or near vehicle (inconspicuous)

Peds working in parking lots (garbage pick up, loading docks, maintenance personnel) completely unaware of potential events

Countermeasure Concepts:

Speed bumps
2-5 mph speed limit
Conspicuous bags for purchases from stores in shopping center--
- brightly colored
- retroreflective

Conspicuous shopping carts--
- cart flags
- brightly colored
- retroreflective

Peds--LISTEN for engine noise; LOOK for back up lights; STOP at edge of cars and look LRL--become attentive to the traffic environment; use the same rules; remember, parking lots have moving traffic

Peds--walk close to parked cars instead of middle of thru lane (look & listen)

* * * * * *

Description: All other events involving pedestrians not in roadway (includes driveway, sidewalk, alley and gas station/car wash events), based on hard-copy analysis of 46 reports from Los Angeles and RUPED.

Driver Age - 39% of all drivers involved in PNR accidents were classified hit and run; 24% were in the age group 20-29; 13% in the 15-19 age group; 9% in the 60 plus group; 7% in the 30-39 group; 4% were prior drivers/driverless vehicle; and 2% each in the age groups 40-49 and 50-59.

Driver Sex - Males are more often involved in PNR events than females (39% vs. 17%, respectively).

Time of Day/Day of Week - More than half of the PNR events occur between the hours 0600-1659 (65%); followed by 1700-2059 (20%) and the hours 2100-0559 being the least likely (15%). Monday, Wednesday and Friday are the most likely days PNR events occur (24%, 22% and 17%, respectively); followed by Saturday and Sunday (15% and 11%, respectively); with Thursday and Tuesday being the least likely (7% and 4%, respectively).

Pedestrian Age - 28% of all pedestrians involved in PNR accidents were in the age group 60 plus; 17% in the age group 20-29; 13% in the group 50-59; 11% in the group 0-4; 9% in the 30-39 group; 7% in the 15-19 group; and 4% each in the groups 5-9, 10-14 and 40-49.

Pedestrian Sex - Males are more often involved in PNR accidents than females (61% vs. 39%, respectively).

Accident Type - PNR accidents (excluding parking lots) were sub-classified using the standard accident typology, with nine additional types added solely for PNR classification. Of the 46 reports coded, three accident types contained the majority of events: "Not Classifiable," 28%; "Run Off Road," 24%; and "Driveway Rideout," 11% which typically involved striking a pedestrian at a driveway-sidewalk intersection.

Ped Location/Vehicle Location (prior to event) - Most of the pedestrians involved in PNR events were on the sidewalk (56%); followed by driveway (15%) and gas station/car wash (13%). Vehicle location prior to the event was looked at in terms of on-street versus off-street and was found to be almost evenly distributed (52% on-street vs. 48% off-street).

Behavior (accident generating):

Drivers--

Losing control of vehicle (driverless vehicle)

Traveling too fast for conditions

Unaware of peds (attention conflict)

Enter/exit driveway without checking for peds at sidewalk intersection

Pedestrians--

Inattentive--off-road locations are not seen as traffic environments by pedestrians

Inconspicuous

Unpredictable or sudden movements in off-road locations

Countermeasure Concepts:

Drivers--

Slow/stop at intersection of driveway and sidewalk to check for peds

Proceed slowly--there could be pedestrians in the area

Pedestrians--

Slow down at driveways that intersect with sidewalks

Avoid recreational activities in driveways

Even in off-road locations, you are in a traffic environment--check for moving vehicles

* * * * * *

Pedestrian Not in Roadway accidents were assembled from the Los Angeles, Washington, D.C. and New Orleans data bases. Each of these data bases were formed by retrospective coding of Police Accident Reports. The specific reports reviewed were all reported pedestrian accidents for 1973-1975 in Los Angeles, 1976 for Washington, D.C. and 1973-1975 for New Orleans. Unweighted averages for Pedestrian Not in Roadway accidents in the three cities were calculated by adding the appropriate percentages and dividing by three. Data is reported separately by cities in those cases where significant city differences appear to exist. The number of Pedestrian Not in Roadway accidents in each city's data base were: Los Angeles-859 (81%); Washington-75 (7%); and New Orleans-132 (12%).

Driver Age - In all three cities, the age group most often involved in Pedestrian Not in Roadway accidents was 26-35 (22% average). The second age group most often involved, again in all three cities, was 20-25 (17% average). The remaining age groups, presented in order of frequency and averaged across all three cities are: 46-55; 36-45; 16-19; 56-65; and 65+.

Driver Sex - Males are more often involved in Pedestrian Not in Roadway accidents than females (61% vs. 19% average, respectively).

Time of Day/Day of Week - PNR accidents are most likely to occur during the hours 1200-1759 (46% average); followed by the hours 1800-2359 (28% average); 0600-1159 (19% average) with the hours 2400-0559 being the least likely (6% average). When looked at in terms of day vs. night (0600-1759 vs. 1800-0559), an average of 65% of the events occur during the daylight hours as compared to an average of 34% occurring during the nighttime hours. Day of week varied significantly across the three cities. In Los Angeles, Friday and Saturday were the most likely days PNR accidents occurred (18% each). In New Orleans, Wednesday and Tuesday the most likely days (18% and 17%, respectively). In Washington, Wednesday and Thursday the most likely (19% each).

Pedestrian Age - In all three cities, the age group most often involved in PNR accidents was 25-34 (20% average). The second age group most often involved, again in all three cities, was 20-24 (15% average). The remaining age groups, presented in order of frequency and averaged across all three cities are: 5-9 and 35-44; 10-14 and 65+; 45-54; and 0-4, 10-14 and 55-64.

Pedestrian Sex - Males are more likely to be involved in PNR accidents than females (68% vs. 32% average, respectively).

Type of Vehicle - an average of 74% (across all three cities) of all vehicles involved in PNR accidents were cars; 12% (average) were trucks; and 2% each (average) were taxis and buses.

Locale - No data available for Washington, DC. An average of 56% of PNR accidents in New Orleans and Los Angeles occurred in commercial areas and an average of 18% took place in residential areas.

Vehicle Action - An average of 58% of all vehicles involved in PNR accidents were going straight and 7% (average) were backing.

Culpability - No data available for New Orleans. An average of 62% of the accidents were judged as driver culpable; 16% ped culpable; 13% both culpable; and 2% neither culpable.

Second Accident Type - The most frequently cited second accident type cited in all three cities was "Probable Non-Accident" (8% average).

Recommendations:

Nevertheless, it does appear that a pedestrian-oriented message is possible:

Parking lots are an extension of the roadway. Vehicles can be moving through parking lots at any time, therefore, you must use the same caution in a parking lot as you would if you were in a roadway. Never enter a traveled lane in a parking lot without stopping and looking for what might be coming in that lane. Never emerge from between parked cars without stopping and looking at the outside edge of the parked car for what might be coming. Select a route through the parking lot that avoids crossing from between parked cars.

This message was drafted as a TV spot with a supporting poster. These appear on the following pages along with focus group comments.

SAXE MITCHELL INC.

Crossways Park North/Woodbury, L.I.,
New York 11797 (516) 364-9595

CLIENT NHTSA

MEDIA TV :60

DATE

JOB NO. PARKING LOT

COPY

#5 :60 TV PARKING LOT

1. EXTERIOR MALL PARKING LOT. DAY. FULL ON: A woman with her arms full of packages about to step off the curb in front of a store. ON CUE, she looks up questioningly at the camera.	Hold it, just a moment! How easy do you think it would be to get hit by a car in . . .
2. LONG SHOT (FROM HER POV): A section of the parking lot. There are lots of parked cars but not much action.	. . . this nice quiet parking lot?
3. FULL SHOT: The woman looks out toward the lot.	Now watch . . .
4. UNDERCRANKED STOP MOTION DURING A BUSY FIFTEEN OR TWENTY MINUTE PERIOD: Looking at the same section of the parking lot. There's lots of action, with an amazing number of cars whizzing into parking spaces and backing out of others.	. . . what goes on in just a fifteen minute time span . . . and see how easy you think it might be to get hit! Open areas in parking lots are traffic lanes, and you have to watch out when you're in them!
5. CLOSE ON: The woman, as she steps off the curb and starts to take a safe route to her car. (Exactly how she goes will depend on the lot selected.) The camera follows her.	Don't take a short cut to your car. Take a safe way.
6. The woman coming out from between two parked cars. She stops in a safe position and peers out to the left.	If you must come out from between parked cars, stop where it's safe and . . .
7. LEFT ANGLE from her POV: There is a car coming.	. . . check for traffic . . .
8. RIGHT ANGLE from her POV: A car is backing out. It could have been a threat to her.	. . . in both directions.
9. The woman walking through an empty parking space. A car starts to pull into the space and then stops short.	An empty parking space is an invitation to a driver who's looking for one. . .
10. The woman walking behind a row of cars parked head in.	Don't cross behind cars that may back out.

SAXE MITCHELL INC.

Crossways Park North/Woodbury, L.I.,
New York 11797 (516) 364-9595

CLIENT NHTSA

MEDIA TV :60

DATE

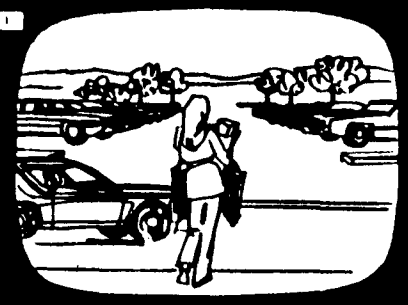
JOB NO. PARKING LOT

COPY

#5 :60 TV PARKING LOT cont.

11. A car, from her POV, with a driver in it.	Check to see if there are drivers in them . . .
12. CLOSE ON: The back end of another car, featuring the back-up lights as they go on.	Look for back up lights that mean the car is in gear ready to move.
13. CLOSE ON: Following the woman as she walks. ON CUE, she looks up to locate the sound of the starting engine.	(SOUND UNDER: A car engine starting.) When you hear a car start, somebody's going to pull out.
14. The woman crossing in a clearly marked pedestrian walkway.	If there are pedestrian walkways, use them . . . and always remember that . . .
15. The woman, standing on the curb, about to step into the traffic area.	
16. UNDERCRANKED STOP ACTION EFFECT SEQUENCE: The action in the parking lot during an extended period. There is a lot of it.	. . . open areas in parking lots are traffic lanes . . .
17. SUPERIMPOSE: The woman pedestrian looks left, right, left, and then steps into a hole in the action.	. . . to be crossed like any other roadway.

#5 PARKING LOT TV :60



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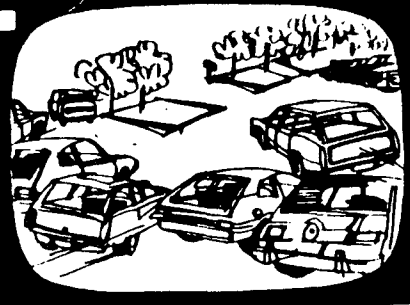

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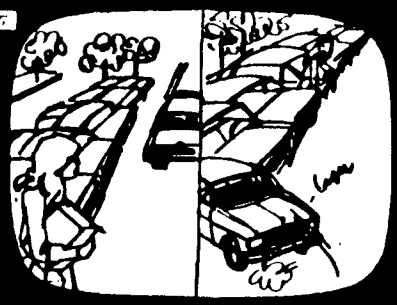

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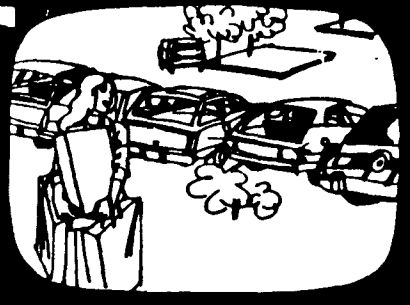

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SAXE MITCHELL INC.


The Parking Lot
A PEDESTRIAN ACCIDENT TRAP
If you walk between parked cars, stop where it's safe and look both ways for traffic.
Always use pedestrian crosswalks.
If you cross between parked cars, look for back-up lights, exhaust and a driver behind the wheel.

FOCUS GROUP

SUMMARY AND CONCLUSIONS

#5 Parking Lot (TV: 60 seconds)

This spot was well received by all members of the review audience. They felt that there is a need for a message such as this directed toward children as well as adults.

There was some minor concern that because the pedestrian was portrayed as a woman, that men and children would not identify with the spot. It was also felt that the addition of a shopping cart to the scene would relate it more to a shopping center.

Overall, however, this TV message was seen as simple and clear and would serve as a useful reminder of how to walk safely in parking lots.

D. Visual Screens

Definition: Drivers and pedestrians do not see each other because detection is blocked by parked vehicles, standing vehicles, moving vehicles, trees, posts, buildings, etc.

Background: In RUPED, visual screens were cited as primary "Environmental Causal Factors" in 21% of all investigated crashes and secondary "Factors" in 13% of the crashes. Parked cars were cited as a primary factor, secondary or as the source of a detection failure in 12% of the cases; standing and moving traffic in 15%, and trees, posts, etc., in 5%. In ORI, parked cars alone were cited as a "predisposing factor" in 19% of the investigated crashes with the other visual screens cited far less often. The distribution of accident type by visual screens is shown below:

	RUPED			ORI
Accident Type	Parked Car	Standing/ Moving Traffic	Trees/ Posts, etc.	Predisposing Parked Car
DO1	38%	5%	37%	70%
DO2	15%	20%	10%	10%
Mid Dash	5%	6%	7%	N/A
Inter Dash	5%	12%	10%	4%
Multi Threat	0%	11%	0%	0%
Walk in Road	2%	12%	5%	N/A
Disabled Veh.	7%	7%	0%	N/A
Vendor	9%	2%	0%	3%
All Other	19%	25%	31%	13%
Total	100%	100%	100%	100%
N	184	233	83	455

Behavior:

Drivers—

For the most part, there is little that the driver does to cause the accident

Nevertheless, inadequate search is a problem particularly in residential neighborhoods during the late afternoon and evening (dart-outs)

Also, not recognizing Multiple Threat, Bus Stop and Vendor hazards.

Pedestrians—

Running, particularly from behind parked cars

Inadequate search, not looking for what might be coming in the traveled lane they are about to enter

Detection, not providing drivers with enough exposure to allow the driver to see them and not giving themselves enough time to see the oncoming vehicle.

Description:

Drivers— Primarily male (70%-80%) with a median age of about 30.

Pedestrian Age - Children are most often involved when the visual screen is a parked car (75% ages 0-9 from ORI and 68% from RUPED). All ages, however, are involved when the screen is moving or standing traffic.

Pedestrian Sex - The children in the parked car situation are primarily male (approximately 70%). Males are also more often involved in the moving and standing traffic situation though not to the same degree (approximately 55%).

Time/Place - The parked car situation is typically an afternoon event while the moving or standing traffic event occurs throughout the day. The majority of parked car events occur in residential neighborhoods (approximately 70%) while commercial areas account for most of the moving and standing events (approximately 55%). Parked car is typically midblock while moving and standing is typically intersection. However, in RUPED, a substantial number of Dart-out second crashes (29% of all DO2) involved standing or moving traffic.

Ped Action - The RUPED data show that 67% of the pedestrians were running just prior to their crash in the parked car situation. Also, 43% were running in the standing or moving traffic situation and 59% were running when trees, posts, etc., provided the visual screen.

Countermeasure Concepts:

Tell drivers how to recognize the screening situation. Focus on Multiple Threat, Bus Stop, Vendor and residential neighborhoods during the late afternoon (dart outs)

Pedestrian message which deals with running

General visual screen message which tells pedestrians to enter a traveled lane only after they've checked to see what's coming.

Recommendations:

The following general message for pedestrians should have utility:

> *It is never safe, as a pedestrian, to enter a traveled roadway lane until you are sure that there are no vehicles coming in that lane. Parked cars, standing traffic, trees, bushes, a waiting bus or truck, etc., can all block your vision of oncoming traffic and make it impossible for oncoming drivers to see you. Therefore, before entering any traveled lane, look to what is coming in that lane. If you can't see, because of any obstacle, move out slowly until you can just see around the obstacle. Then, if it is safe, you can enter the lane.*

This message was drafted as a TV spot. It may be seen on the following pages with focus group comments.

SAXE MITCHELL INC.

Crossways Park North/Woodbury, L.I.,
New York 11797 (516) 364-9595

CLIENT NHTSA

MEDIA TV :30

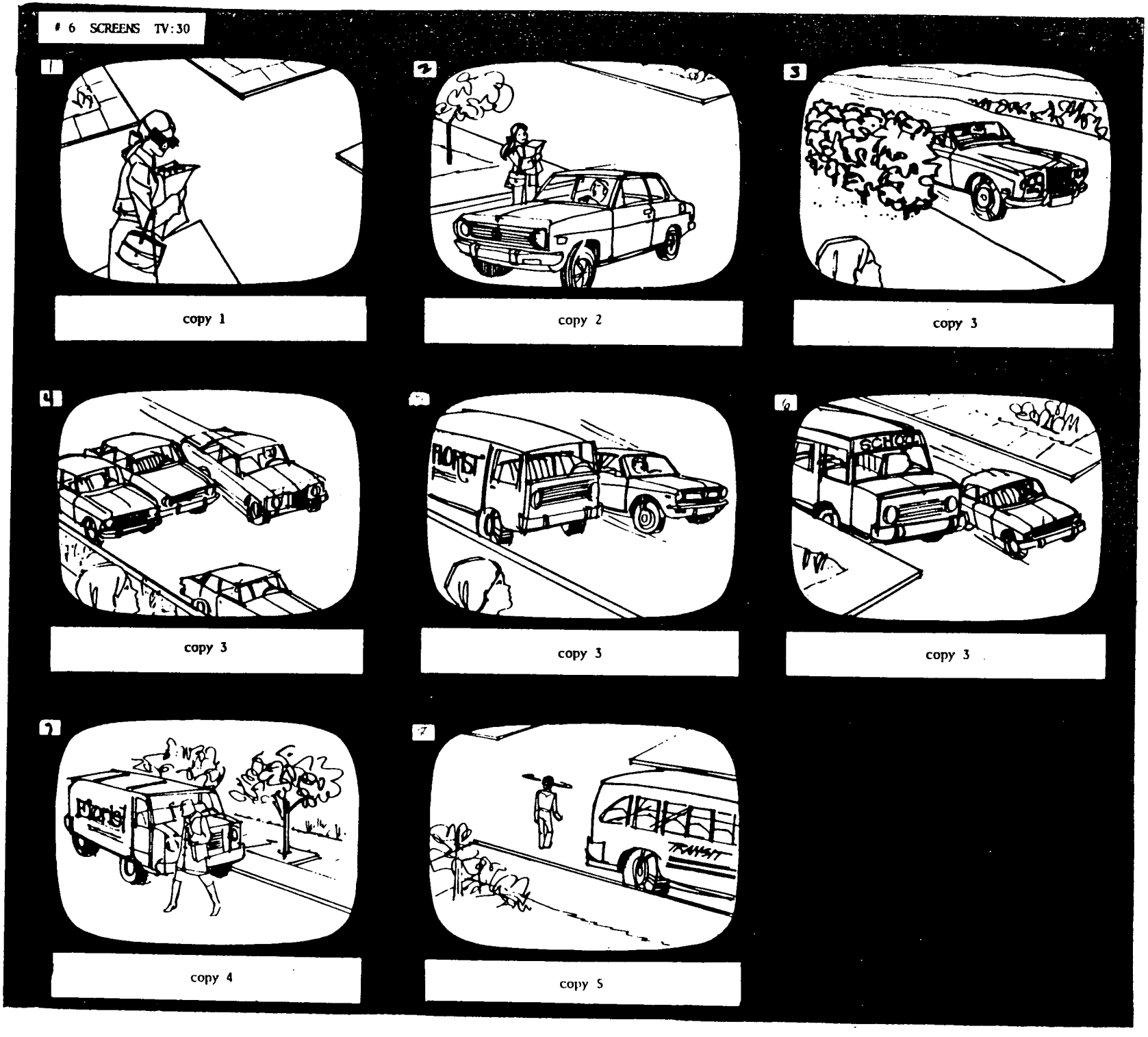
DATE

JOB NO. SCREENS

COPY

#6 :30 TV SCREENS

1. WILD EXTERIOR. FULL SHOT: A woman pedestrian, wearing blinders walking along the side of a roadway.	Would you believe this is the way some people cross streets? . . .
2. HEAD SHOT: She turns to cross the roadway, and after she takes just a step or two a car whizzes by between her and the camera.	. . . Stepping out into traveled roadways without being able to see clearly in both directions?
3. SERIES OF QUICK CUTS: Visual Screens from a Pedestrian's POV. In each, a car appears suddenly from behind the screen and whizzes by: (1) A natural screen in a rural area; (2) A double-parked car in a selected area; (3) A delivery van in a selected area; (4) Another type of screen in another selected area.	Realistically, lots of obstacles can make it hard for you to see on-coming traffic, and you can find them just about anywhere there are cars going by.
4. A female pedestrian starting to cross (correctly) past a visual screen. She moves out slowly till she can see clearly past the screen, and then looks in the opposite direction.	The way to cross safely when you can't see clearly is to move out slowly . . . till you can see clearly . . . in both directions.
5. A male pedestrian, about to cross past a visual screen on his right. ON THE CUT, he turns from looking to his left to looking right (around the screen) and then starts to cross at normal speed.	Cross only when you're sure there's nothing coming.


6 SCREENS TV:30
1
copy 1
2
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3
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4
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5
FLORIST
copy 3
6
SCHOOL
copy 3
7
FLORIST
copy 4
8
TRANSIT
copy 5

FOCUS GROUP

SUMMARY AND CONCLUSIONS

#6 Screens (TV: 30 seconds)

The test audience generally found this message to be acceptable. However, they did identify with some of the problems and would like to see changes made.

One of the problems appeared to be that they did not identify with the scenes in this spot. They felt that the message was directed towards people who live in cities rather than rural areas. The obstacles more commonly encountered by the test audience members are hills, curves, trees and bushes which block their vision when crossing the street.

The test audience appeared to have difficulty in visualizing what would take place on a TV screen. The fact that the woman is wearing blinders was not clear to them at first, and they found it confusing. They also found the bus scenes and the fact that the truck is parked on the wrong side of the road confusing. Some of the reviewers were concerned that the spot seems to approve of mid-block crossing.

Despite the problems noted by the test audience, they did receive the message to take care in crossing a road when the view is obstructed and they perceive a need for this message to be conveyed. They would like to see such a spot produced directed towards the rural resident.

E. Intersection Crashes

Definition: Accidents which occur at intersections (approximately half of urban events, perhaps one quarter of rural and suburban events).

Background: Intersection crashes have remained an ill-defined group of events. A high proportion fall into "other" and "not classifiable", others fall into a series of low incidence accident types such as "Trapped," "Rear Wheel Truck", "Bus Stop", "Out of Control", etc. Only about half fall into the major defined types of "Intersection Dash", "Vehicle Turn Merge", "Turning Vehicle" and "Multiple Threat." Even here, Intersection Dash is a mix of events involving running (only) as well as short-time exposure arising from any cause. A brief look at intersection accidents by type is as follows:

* * * DATA BASE * * *

Accident Type	RUPED	ORI	Wash. '76	N.O. '73-'75	Col. '74-'76	L.A. '73-'75
Inter Dash	37%	17%	20%	33%	29%	22%
VTM	4	12	8	2	3	14
Turning V.	7	12	16	9	17	17
M.T.	5	5	3	5	2	13
Bus Stop	—	4	1	5	1	1
All Other	47	62	52	46	48	33
Total	100%	100%	100%	100%	100%	100%
N	394	1,042	394	1,309	861	3,814

* * *

At least part of the problem in understanding intersection crashes is that the intersection itself is the most complicated part of the roadway. Generally, in a midblock crossing, a pedestrian need only worry about vehicles coming straight from the left or right. At intersections, a vehicle can be going straight or turning, left or right and can approach the pedestrian from virtually any angle. While vehicle speeds tend to be slow, this benefit is offset by the fact that all parties have a lot to be concerned about with signs, lights, turning traffic, etc.

A sample of Columbus (N=153) and Los Angeles (N=145) hard-copy intersection reports were analyzed. The next section of this Fact Sheet provides subjective impressions from this analysis and the succeeding section analyzes the directionality of the vehicle threat.

Impressions from hard-copy:

Events involving younger age groups (0-4 and 5-9) at intersections controlled by both stop signs and tri-light signals typically involved pedestrians running/darting into the intersection (behavior paralleling the "Dart/Dash" accident type). Intersection controls (i.e., tri-lights, ped walk signals or stop signs) did not appear to significantly influence intersection events for this age group. In the adult age group, intersection events were influenced by several factors. Adult pedestrian behavior was influenced at intersections controlled by tri-lights and ped walk signals (unlike that of the younger age groups). Adult pedestrians rely on tri-lights or walk signals much more often than the younger age groups; and in a majority of events, these signals were the only source of information used to determine whether a safe crossing could be made. Inadequate search patterns on the part of pedestrians also contributed to turning vehicle events at intersections. Pedestrians simply see the green light and step off the curb without performing an adequate search for turning vehicles. Drivers involved in intersection events, particularly turning events, are also performing inadequate searches. However, the inadequate search on the driver's part results from a driver attention conflict (attending to vehicular traffic) rather than attending only to the traffic controls in the case of pedestrians. "Multiple Threat" behavior also occurs at intersections, particularly those that are stop sign controlled. Vehicles are typically proceeding straight through the intersection, observe vehicles stopped in inside lanes and are unaware that pedestrians are crossing in front of them. Pedestrians, similarly, do not foresee the threat of oncoming traffic; their view is blocked from oncoming vehicles and they do not perform an adequate search upon reaching the edge of the last vehicle that has stopped for them.

Directional Analysis:

The Columbus and Los Angeles reports (N=298) were analyzed with respect to the nature of the vehicle threat. First, it was found that 53% occurred in the presence of a Tri-light signal; 21% with stop signs and the remaining 26% occurred without vehicle controls. The basic results from this analysis for Tri-lights and stop signs are shown in the two figures which follow. The figures first separate the accidents into "A" events and "B" events as follows:

A - Intersection is to ped's left, thus the first half of ped's crossing involves threats from vehicles exiting the intersection.

B - Intersection is to ped's right, thus the first half of ped's crossing involves threats from vehicles entering the intersection.

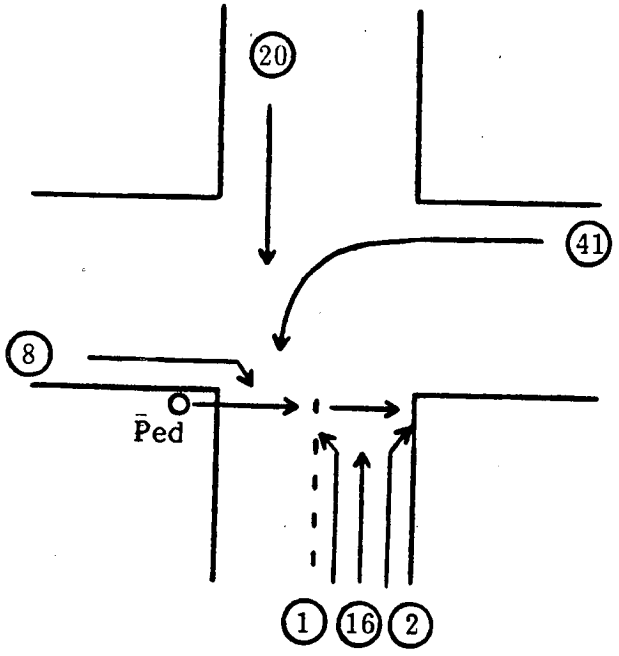
The results show that "A" crossings are more dangerous than "B"; the first half of the crossing is more dangerous than the second; and exiting threats are more dangerous than entering. Therefore, the first half of the "A" crossing is by far the most dangerous.

Separate analyses were performed for tri-lights and stop signs; children and adults; turning and not turning vehicles. The most interesting result arose for Tri-lights as shown below:

Tri-light

Los Angeles and Columbus

"A" Crossing



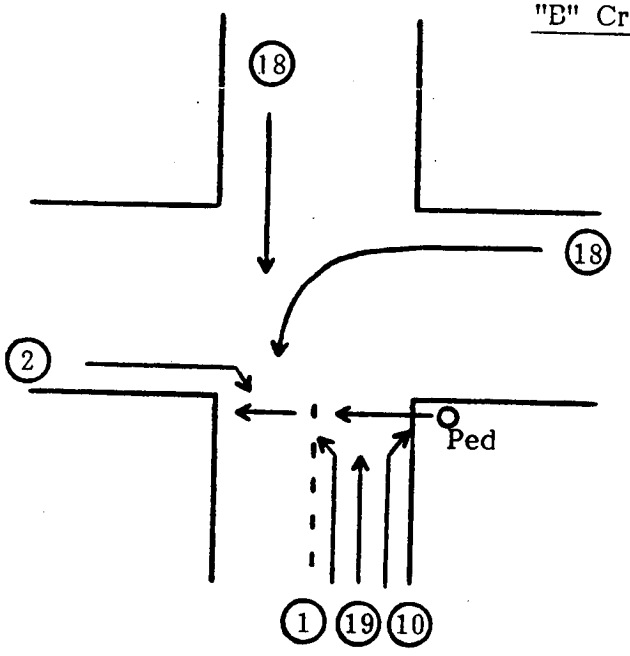
N = 88

1st half = 69

2nd half = 19

"A" total = 88

"B" Crossing



N = 68

1st half = 30

2nd half = 38

"B" total = 68

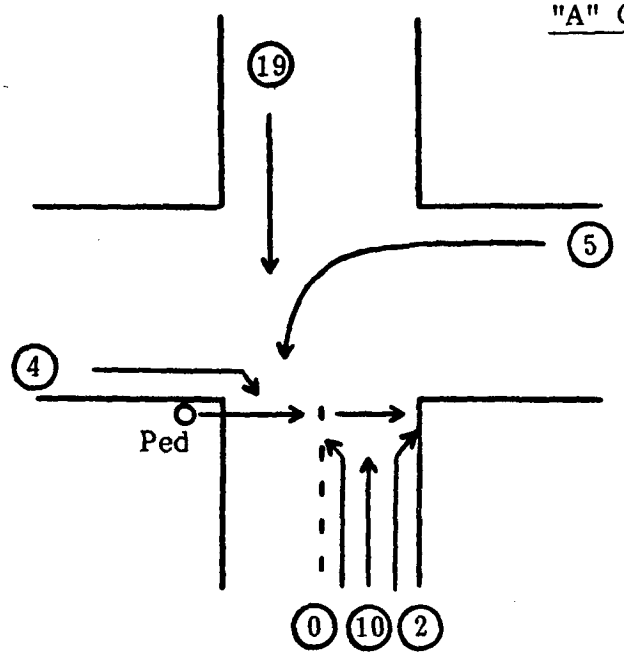
Vehicle exiting intersection = 107
("A" 1st + "B" 2nd)

Vehicle entering intersection = 49
("A" 2nd + "B" 1st)

Stop Sign

Los Angeles and Columbus

"A" Crossing



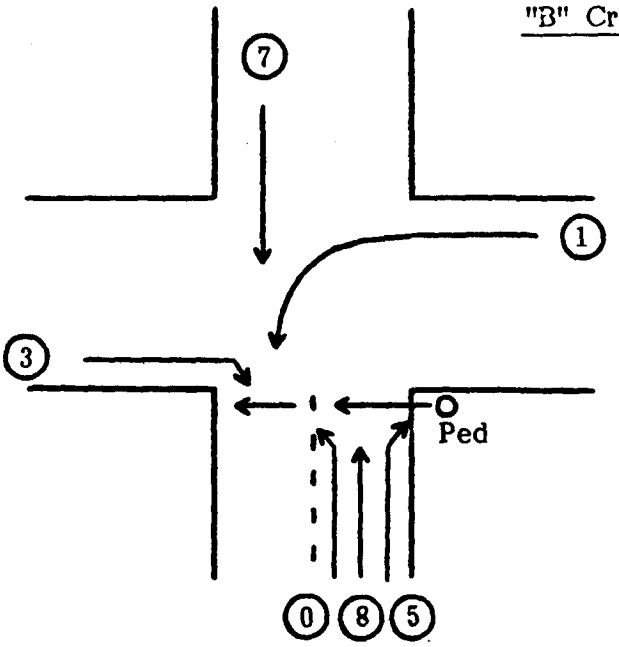
N = 40

1st half = 28

2nd half = 12

"A" total = 40

"B" Crossing



N = 24

1st half = 12

2nd half = 11

"B" total = 24

Vehicle exiting intersection = 39
("A" 1st + "B" 2nd)

Vehicle entering intersection = 25
("A" 2nd + "B" 1st)

	Children (0-14)				Adults (15+)			
	Vehicle Straight		Turn		Straight		Turn	
	1st	2nd	1st	2nd	1st	2nd	1st	2nd
A	11	6	6	0	9	10	44	3
B	5	4	1	2	14	14	10	18
Total	16	10	7	2	23	24	54	21

* * *

For children, the basic problem is vehicle going straight (N=26 vs. N=9). This problem is most severe in the first half of the roadway (not unlike dart-outs) and in the "A" configuration. For adults, the turning threat was most severe but again the first half of the "A" configuration predominated. This is exactly the result which would be expected if children dart out against the light (vehicle moving straight through intersection) and adults step off when the light turns green without looking for turning vehicles.

Behavior (accident generating):

Driver - The primary driver error, involved in approximately one third (ORI data) of the crashes, is driver search which was typically categorized as "inadequate", "distracted" or "inattentive".

Pedestrian - Pedestrian course errors were involved in nearly half of the crashes and were typically categorized as "short time" (20% of all intersection crashes), "against light" (12%) and "running" (10%).

Pedestrian search errors were also involved in nearly half of the crashes and were categorized as "inattentive" and "inadequate".

Countermeasure Concepts:

Two general approaches appear viable at this point. First, we can continue to segment the intersection problem into VTM, Multiple Threat and continue to develop specific messages for Intersection Dash (probably a child running message, or an adult search message), RTOR, Bus Stop, Start Gun, Side View Mirror, etc., and/or we can produce an integrated set of message contents into one overall treatment of safe intersection crossing behavior. This one treatment would cover lights and signals, turning vehicles, multiple threats and adequate search prior to initiating an "A" or "B" type crossing.

Impressions from Hard-Copy:

Columbus (46 reports read)--The accidents that occurred at intersections in Columbus are the most notable since 65% of the events occurred at intersection locations and also because the behaviors performed by both drivers and pedestrians are relatively consistent for each event. Namely, the driver is attending to traffic (particularly for turning events) and does not see the pedestrian crossing; and the pedestrian (particularly for this age group) simply steps off the curb to cross without performing an adequate search--and in some cases, performs no search at all, particularly at locations that are signalized and/or contain ped walk signals (see's the green light and crosses). In general, there seems to be an overall unaware/inattentive attitude on the part of pedestrians in this age group which, in varying degrees, contributed to most of the accidents reviewed in Columbus. Several citations issued to pedestrians for failure to yield to a motor vehicle.

Los Angeles (87 reports read)--The majority of Elderly accident types occurred at intersections, most of which had tri-light signals and ped walk signals. A large proportion of events occurred when vehicles were turning (either left or right) and these events clearly were compounded by a driver attention conflict. Also, as with Columbus, pedestrians in this age group do not perform an adequate search before crossing (sometimes no search at all)--they see the green light or Ped "Walk" signal on and step off the curb without searching for oncoming traffic or turning vehicles. The Los Angeles accident reports also contained several multiple threat situations, some of which involved disabled peds crossing, posing a conspicuity problem. Another situation in Los angeles which arose frequently involved peds exit/enter buses. The bus drivers apparently are unaware of elderly peds taking more time to enter or exit buses and pull away from the curb before the peds have completed their exit/enter. Also, because of the size of a bus and the limited visibility the driver has, elderly peds are extremely inconspicuous and events are occurring as the bus is pulling away from the bus stop before peds are out of the roadway and safely on the sidewalk. The reverse is also true of those peds entering a bus; i.e., not safely aboard--doors closing (rear especially) before ped is able to board, bus pulls away while ped is still in roadway.

RUPED (75 reports read)--The majority of accidents occurred at intersections, in marked crosswalks with ped walk signals. Pedestrian behavior for this accident type appears to parallel that of intersection dashes involving children. Namely, pedestrian reaches the intersection, looks only for green light (either tri-light or ped walk signal) and crosses without performing an adequate search for vehicular traffic. Possible countermeasure concepts appropriate for this behavior would be those developed for the "Intersection Dash" accident type. Also, some accidents involved pulling/pushing shopping carts. These accidents may have been caused by misjudging spatial relationships on the part of the pedestrian. Namely, the pedestrian is pulling or pushing the shopping cart too close or in the traveled way. A possible countermeasure concept might be to manufacture brightly colored, retroreflective shopping carts that are sold to the general public as well as those used in shopping centers. Surely, diminished eyesight, hearing and reaction time are physiological conditions which often predispose elderly pedestrian accidents.

Recommendations:

The following message was recommended for pedestrians:

> *Green lights, walk signals and crosswalks do not necessarily mean that it is safe to start crossing. Rather, they tell you to stop at the curb and look to be sure that it is safe. Always stop at the curb and look left-right-left before entering the roadway even when the light is green or the signal says Walk.*

It was also recommended that this message be produced separately for children (emphasis on stopping and not running into the street) and adults (emphasis on search). These were drafted as TV spots and appear on the following pages along with focus group comments.

SAXE MITCHELL INC.

Crossways Park North/Woodbury, L.I., New York 11797 (516) 364-9595

CLIENT NHTSA

MEDIA TV :60

DATE

JOB NO. CHANGES IN #7

COPY

#7 :60 TV "CHILD INTERSECTION"

1. SUBURBAN INTERSECTION: A young teenaged kid is running toward the intersection. He stops ON CUE from WILLY and the FRAME FREEZES.	WILLY: Stop right there. Hi, I'm Willy Whistle with an important message about crossing streets.
2. FULL SHOT (KID'S POV): A green traffic light with WILLY on it.	. . . a green light or . . .
3. FULL SHOT (KID'S POV): A "WALK" signal with WILLY on it.	. . . walk signal or . . .
4. FULL SHOT (KID'S POV): Cross-walk with WILLY in it.	a cross-walk doesn't always mean . . .
5. Kid at intersection (still FROZEN). UNFREEZE, and the kid looks around.	. . . that it's safe to start crossing. They're just telling you to stop right there . . .
6. FROM THE KID'S POV: As a car, having started up just as the light changed, goes by in front of him.	. . . to see if it really <u>is</u> safe.
7. FULL ON a green light. TILT DOWN to find another kid, standing on the curb, as a car pulls into the shot and stops.	A green light means you start to look LEFT-RIGHT-LEFT before you cross.
8. FULL ON a "WALK" sign. TILT DOWN to find a third kid, stopped at the intersection, as a car, making a right turn on red, goes by. The kid looks left, right, and then left again.	A "walk" signal means you start to look LEFT-RIGHT-LEFT before you cross.
9. FULL ON a cross-walk. PAN to find still another kid waiting at an intersection. A car pulls up to the Stop Sign, makes a "California Stop" and continues on its way. The kid looks left, right, and left again.	A cross-walk means you start to look LEFT-RIGHT-LEFT before you cross.
10. CLOSE SHOT: A green light.	. . . what green . . .
11. CLOSE SHOT: A "WALK" signal.	. . . or walk says . . .

SAXE MITCHELL INC.

Crossways Park North/Woodbury, L.I.,
New York 11797 (516) 364-9595

CLIENT NHTSA

MEDIA TV :60

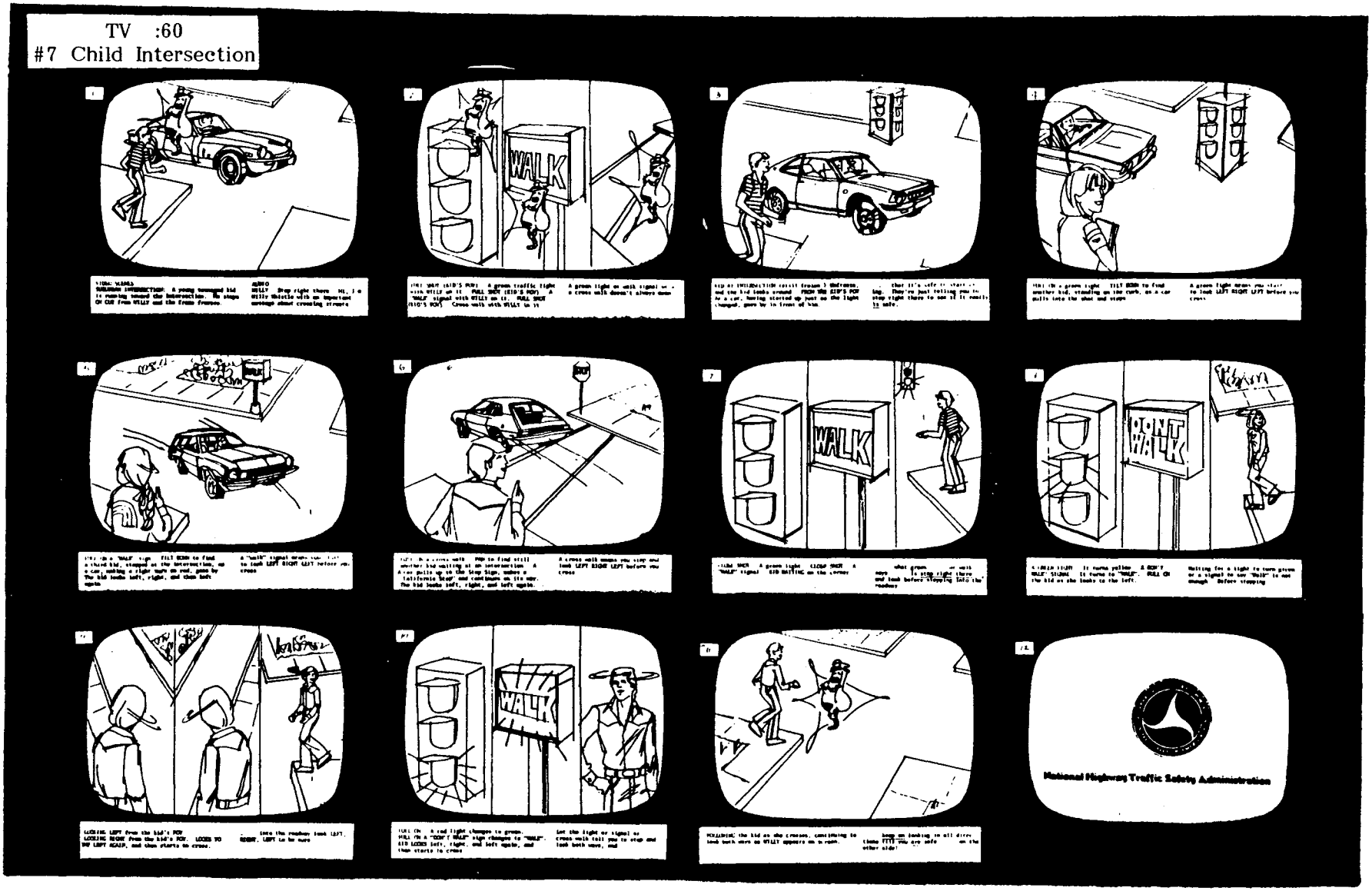
DATE

JOB NO. CHANGES IN #7

COPY

#7 :60 TV "CHILD INTERSECTION" cont.

12. A kid waiting on the corner.	. . . is stop right there and look before stepping into the roadway.
13. A green light. It turns yellow.	Waiting for a light to turn green . . .
14. A "WALK" signal. It turns to "DON'T WALK".	. . . or a signal to say "Walk" is not enough.
15. FULL ON the kid as she looks to the left.	Before stepping . . .
16. Looking left from the kid's POV.	. . . into the roadway look LEFT, RIGHT, LEFT to be sure.
17. Looking right from the kid's POV.	
18. The kid looks to the left again, and then starts to cross.	
19. FULL ON: A red light changes to green.	Let the light or . . .
20. FULL ON A "DON'T WALK" sign changes to "WALK".	. . . signal or cross-walk tell you . . .
21. The kid looks left, right, and left again, and then starts to cross.	. . . to look both ways, and . . .
22. FOLLOWING the kid as she crosses, continuing to look both ways as WILLY appears on screen.	. . . keep on looking in all directions till you are safe . . . on the other side.!


TV :60
#7 Child Intersection
WALK
WALK
DON'T WALK
National Highway Traffic Safety Administration

FOCUS GROUP

SUMMARY AND CONCLUSIONS

#7 Child Intersection (TV: 60 seconds)

This TV spot was enthusiastically received by the majority of the fifth-grade reviewers. They had no problems in perceiving the message and many of them noted that the left-right-left concept was new to them. A special effort was made to learn whether the children related the safety information portrayed in this TV spot to their own environments (i.e., rural, residential areas). The responses from the students indicated that they had successfully made this transition and specially mentioned that they would look left, right, left, at the "bottom of a driveway" or "any place where cars go by".

They considered the spot appropriate for children their ages. They thought Willy Whistle might not appeal to older children and felt that younger children might not benefit as they can't distinguish left from right.

The children accepted the idea of looking left, right, left, but some questioned why they had to look left twice. Others commented that the spot should show other streets besides city streets. They would have liked information on what to do if a hill blocks your view when you are crossing a road.

The students obviously liked Willy Whistle and appeared to have had no trouble in understanding the safety message. They felt that TV would be a good way to teach this message to children.

SAXE MITCHELL INC.

Crossways Park North/Woodbury, L.I.,
New York 11797 (516) 364-9595

CLIENT NHTSA

MEDIA TV :60

DATE

JOB NO. "GO WHEN SAFE"

COPY

#8 60 TV - "GO WHEN SAFE"

1. VERY TIGHT ON: A traffic light, to show only one circle. It is black for an instant, and then turns green.	Stop! Don't move!
2. QUICK CLOSEUPS: Three people as they look up, individually, at where a traffic light is.	Any of you! Just because . . .
3. FULL SHOT (FROZEN): A pedestrian at an intersection ready to step into the roadway.	. . . that light's green, doesn't mean it's safe to cross.
4. FULL SHOT: Green light on a traffic signal, from a pedestrian's POV.	A green light, or . . .
5. FULL SHOT: A "Walk" sign from a pedestrian's POV.	. . . a "walk" signal, or . . .
6. Looking across a cross-walk from a pedestrian's POV.	. . .a cross-walk doesn't always mean it's . . .
7. FULL SHOT: A pedestrian (frozen) poised on the curb, ready to cross.	. . . safe to start crossing.
8. QUICK TIGHT CUTS: A green light, a "walk" sign, a cross-walk.	What traffic signals really tell you is . . .
9. A different pedestrian comes up to a corner and stops on the curb.	. . . to stop, before stepping into the roadway. . .
10. BIG HEAD: The pedestrian looks left, right, left.	. . .to see if it really is safe.
11. FULL SHOT: A different pedestrian at another intersection, with a green light visible in the shot. He looks left, right, left.	A green light tells you to look left, right and left again before you start to cross.
12. FULL SHOT: A different pedestrian at still another intersection, with a "walk" sign visible. She looks left, right and left.	A "walk" signal tells you to look left, right and left again before stepping into the roadway.

SAXE MITCHELL INC.

Crossways Park North/Woodbury, L.I.,
New York 11797 (516) 364-9595

CLIENT NHTSA

MEDIA TV :60

DATE

JOB NO. "GO WHEN SAFE"

COPY

#8 60 TV - "GO WHEN SAFE" cont.

13. FULL SHOT: Another pedestrian, on the curb at a cross-walk, looking left, right, left.

A cross-walk tells you that it's a place to cross after you look left, right and left again to be sure that it's safe.

14. MEDIUM CLOSE: As a pedestrian comes up to an intersection and FREEZES on the corner.

So always stop before you step into the roadway.

15. CLOSE ON: A traffic light as it goes from red (or yellow) to green.

Waiting for the light to turn green . . .

16. CLOSE ON: A "Dont Walk" sign changes to "Walk".

. . . or for the signal to say "Walk" isn't enough, and . . .

17. TILTING UP across a cross-walk to find a pedestrian FROZEN on the curb.

. . . a cross-walk is safe only after you've looked to be sure it is

18. CLOSE ON: A green light.

Let the lights. . .

19. CLOSE ON: A "Walk" sign.

. . . signals, or . . .

20. Looking out across a marked cross-walk, from the pedestrian's POV.

. . . markings tell . . .

21. BIG HEAD: Pedestrian looking left, right, left.

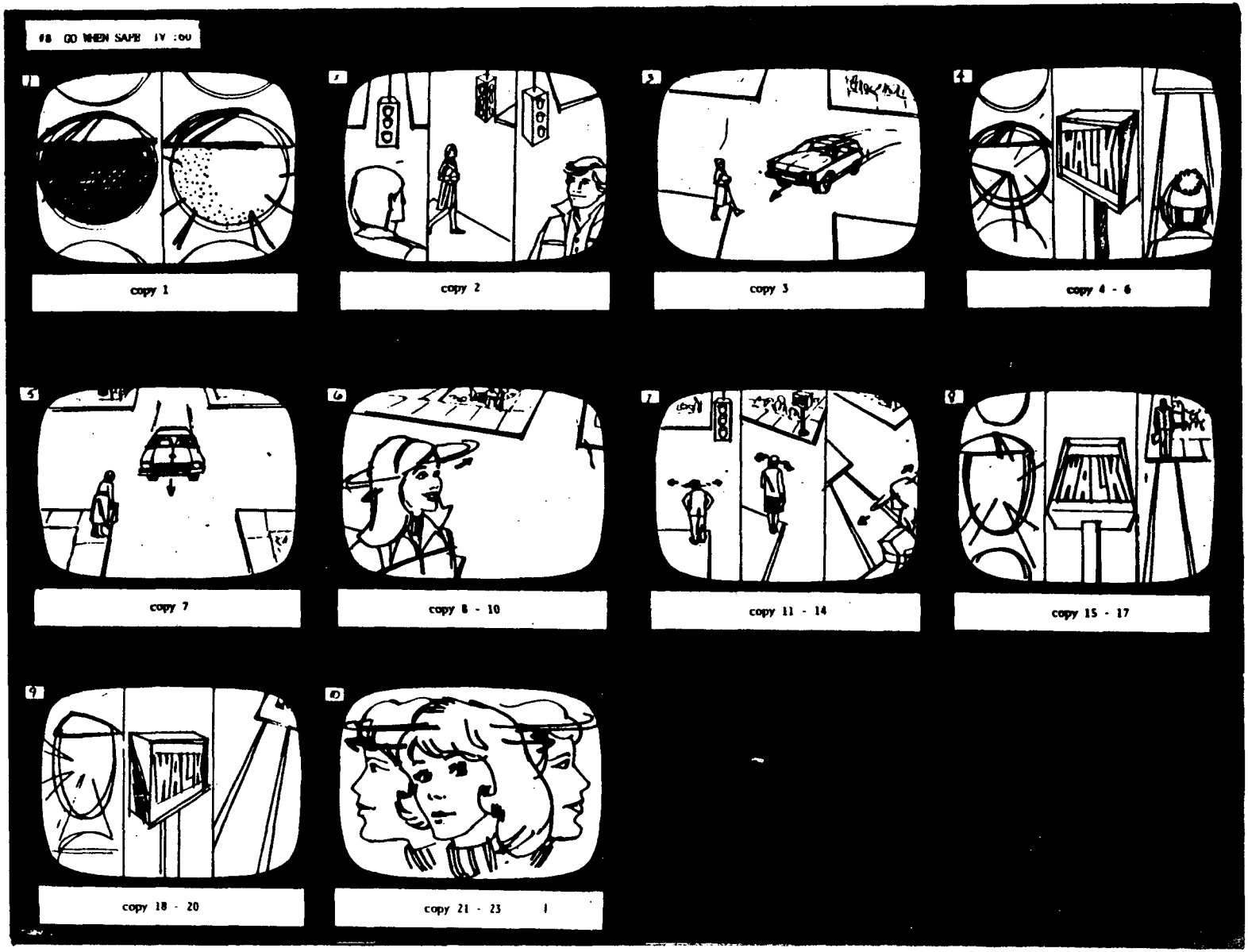
. . . you to stop and look both ways. . .

22. FULL SHOT: The pedestrian steps into the roadway.

. . . before you step into the roadway; . . .

23. FROM THE OTHER SIDE OF THE STREET, as the pedestrian, looking left and right as she crosses, arrives safely on that side after having crossed. Her head comes right up into the camera.

. . . and keep on looking in all directions till you're safe . . . on the other side!


#8 GO WHEN SAFE TV :ou
copy 1
copy 2
copy 3
copy 4 - 6
copy 7
copy 8 - 10
copy 11 - 14
copy 15 - 17
copy 18 - 20
copy 21 - 23

FOCUS GROUP

SUMMARY AND CONCLUSIONS

#8 Go When Safe (TV: 60 seconds)

This spot received mixed reviews from the test audience. The message appeared to be clearly conveyed to all members, but the presentation was criticized by some in terms of its appropriateness for its intended audience.

The general feeling of the test audience was that the message is a good one as most people do assume that if they have a green light or walk signal it is safe to step off the curb as they have the right of way. It was noted that this spot would serve as a reminder to pedestrians to use caution and probably make them more aware of the hazards of crossing at an intersection.

Other reviewers felt that adult audiences would be turned off by the approach used in this spot. The repetitious use of "look left, right and left again" was felt to be inappropriate for adults and it was felt that it gave the impression that it was directed towards children. Some members also felt that the tone was condescending to adults.

There was, however, general agreement on the need for such a message and some reviewers had overall positive reactions to the spot. Other members would prefer a more sophisticated approach to convey this message.

F. Elderly

Definition: All pedestrians 65 years and older. (Though they account for only 5-10% of all accidents, they accounted for 23% of pedestrian fatalities nationally in 1977).

Behavior (accident generating):

Accident Type

Elderly pedestrians are overrepresented at intersections, in crosswalks and with tri-light signals. They are also overrepresented in Backing events. Their distribution of accidents by type is as follows:

Accident Type	Data Base							
	L.A. 73-75 N=912	L.A. 76-78 N-1,038	Wash. 76 N=61	N.O. 73-75 N=214	Col. 74-78 N=115	S.D. 73-78 N=437	ORI 69 N=212	RUPED 74 N=94
VTM + T.V.	29%	28%	16%	11%	33%	32%	19%	14%
Inter dash	11%	11%	12%	22%	16%	13%	5%	7%
Mult. Th.	7%	8%	3%	8%	3%	4%	5%	3%
Backing	8%	10%	15%	5%	6%	5%	3%	5%
Total	55%	58%	46%	45%	58%	53%	32%	29%
% of all classified accidents (i.e., excluding Other and Not Classifiable)	68%	70%	64%	57%	79%	69%	N/A	41%

Thus, these four accident types account for half or more of the elderly events with the turning crashes and Intersection Dash the most critical.

Behavioral Errors

Information from ORI suggests that the most critical problems are driver search (45% of cases), pedestrian search (43%) and crossing against the light (11%). From RUPED, the most critical problem was pedestrian course (50% of cases) primarily involving hi-exposure crossings and short-time exposure; followed by pedestrian search (45%); and driver search (40%). RUPED also showed ped evaluation failures (27%) caused by "misperceived intent," "poor path prediction" and/or alcohol/drug impairment. Review of hard-copy accident reports suggest that the elderly pedestrian simply is not seen by the driver (daylight conspicuity at intersections) because of inadequate driver search, slower pedestrian movement and darker pedestrian clothing. Further, the elderly pedestrian does not search for vehicles and tends to enter the street as soon as the light turns green--regardless. Crossing against the light and "human factors" (e.g., diminished eyesight) are important contributory factors but are not the first or immediate cause of most accidents.

One single element which emerged consistently from the review of this accident type was that elderly pedestrians were extremely inconspicuous. The tendency toward purchasing dark, conservative, inconspicuous clothing by the elderly population places them at an even greater risk.

Countermeasure Concepts:

Look for turning vehicles

Don't cross in front of a stopped car until you know what's coming in the next lane

Look for back-up lights--Listen for engine noise

Associated driver messages on backing, turning and multiple threat

Shopping cart flag or other conspicuity enhancer

Complete set of Intersection and Intersection Dash driver and ped messages

Defensive walking course (or at least, pamphlet)

Most important, daylight conspicuity enhancers designed to alert drivers (flick stick, flag, fluorescent cane, etc.).

Description:

Drivers - Very average as compared to other pedestrian accidents. Typically, male and about 30 years old.

Time (of year) - Winter months predominate consistently. Greatest over-representation was found in Washington where January, November and December (1976) accounted for 46% of all elderly crashes. In Los Angeles, January, November and December ('76-'78) accounted for 36% of the events as compared with 19% for May, June and July. Overrepresentation was also found for Los Angeles '73-'75, New Orleans and RUPED.

Day/Time - Weekdays predominate as opposed to weekends. Daylight and early evening predominate with few late night events. New Orleans showed an overrepresentation of morning events; Washington around noon; and RUPED late afternoon and evening. Los Angeles spread evenly from 8 A.M. to 8 P.M.

Neighborhood - Business and commercial (77% in New Orleans, 70% in Los Angeles and, surprisingly, fully 49% in RUPED which looked at rural and suburban events).

Location - Intersections, often signalized with marked crosswalks. Los Angeles showed 64% intersection and 35% with RGA. New Orleans was 66% intersection and 30% RGA. Washington showed 46% RGA. RUPED showed 57% intersection but with only 9% RGA. Also,

from RUPED, elderly ped is very familiar with location since 87% had been there 90 or more times in the past year.

Ped - Males and females are involved equally. Washington showed 59% female, L.A. 54% female, New Orleans 45% female and RUPED 40% female. Also from RUPED, nearly half (44%) were 75 years old or older and most (67%) did not hold a driver's license at the time of the crash.

Recommendations:

The following message appears viable and is recommended:

The older adult pedestrian often does not understand the meaning of lights and signals, particularly when crossing at intersections. They rely on the green indication and crosswalks as giving them total safety. They should understand that: Green means look and, if safe, then go; Green doesn't mean right of way, since turning vehicles could be crossing your path, and some vehicles could still be in the intersection when your light is green. Therefore, when crossing the street at a signalized location, wait for a fresh green light (gives you the most time), look for cars that might be coming (don't assume they will stop) and continue to look for turning vehicles for as long as you are in the street.

G. Child Supervision

Definition: Absent or inadequate supervision of children is a major predisposing factor for young child/motor vehicle collisions.

Behavior (accident generating):

Drivers--

Typically not the fault of the driver

Most drivers just don't see pedestrians until it is too late to avoid the accident

Pedestrians--

69% of the pedestrians were running

The presence of parked cars adds to the problem of short time exposure

Inattentive to traffic or distracted--young children are simply unable to handle road hazards

Countermeasure Concepts:

For this age group, it is preferable to impart safety messages to parents rather than the young children themselves. The goal of the messages should be twofold:

1. Alter parental behavior, i.e., improve parental supervision and awareness of the dangers

2. Aid parents in training their children through repetition.

The safety measure should emphasize avoidance of traffic areas rather than in how to behave in them. Safe Play Areas should be the most effective countermeasure.

Description:

Driver Age - 35% of drivers involved in child supervision related accidents were 26-45 years of age; 29% were in the 46-65 age group; 14% in the 16-21 age group; 9% each in the age groups 0-15 and 22-25; and 3% were in the 60 plus age group.

Driver Sex - Males are more often involved in child supervision related accidents than females (79% vs. 21%).

Time of Day/Day of Week - Child supervision related accidents are most likely to occur during the daylight hours between 2 and 7 P.M. (2 P.M. = 8%; 3 P.M. = 13%; 4 P.M. = 18%; 5 P.M. = 16%; 6 P.M. = 12% and 7 P.M. = 11%). Monday is the most likely day for these accidents to occur (18%), Wednesday and Thursday the next most likely (17% each), followed by Tuesday (14%), Friday (13%), Saturday (12%) and Sunday (9%).

Pedestrian Age - 51% of pedestrians involved in child supervision related accidents were in the age group 0-4; 46% in the age group 5-9, and 3% in the age group 10-15.

Pedestrian Sex - Males are more often involved in child supervision related accidents than females (68% vs. 32%).

Vehicle Speed - 96% of drivers stated that speed was not a predisposing factor. This is verified by the fact that 98% of drivers were moving at or below the posted speed limit and 73% of drivers were moving at 25 mph or less independent of the posted speed limit.

Pedestrian Action - 69% of pedestrians involved in child supervision related accidents were running.

Site - Child supervision related accidents are most likely to occur in residential one-family or residential multi-family areas (39% and 25%, respectively); followed by commercial areas (17%), apartment complexes (10%), school/playgrounds (2%) and industrial areas (1%).

Recommendations:

The following message was developed:

Children five years old and younger at play generally do not pay attention to pedestrian safety. They run into the street without looking and often dart out between parked cars. Furthermore, they are too young to understand the problems of driving and walking, and therefore do not perform properly as pedestrians. Therefore, when your children go out to play, you must take an active role in their safety. Never let your young children walk or play near a street unless a responsible adult is close by and supervising your child's activities. Seek alternate play areas for your children which offer no direct access to the street.

It was felt that this message could best be covered by a pamphlet directed to parents.

H. Darts and Dashes

Definition: Children dash into the roadway, midblock.

Behavior (accident generating):

Drivers--

Often a detection failure caused by visual obstruction (i.e., parked or moving vehicles or trees, etc., and inadequate search

Misperceive pedestrian intent: "I saw him playing and suddenly he ran out"

Pedestrians--

Short time exposure; running

Inattentive; distracted by other people or other non-traffic items

Countermeasure Concepts:

Film Willy Whistle with training aids

Description:

Driver sex - RUPED shows a significant increase in females involved in these accidents:

ORI	78% males, 22% females
RUPED	68% males, 32% females

Driver age - median driver age in ORI and in RUPED was approximately 30 years.

Pedestrian sex is approximately the same for each study with more males than females being involved:

ORI	68% males, 32% females
RUPED	71% males, 29% females

Pedestrian age is approximately the same, however, there is a larger peak for the 5-9 age group in the ORI study:

	1-4	5-9	10-14
ORI	25%	61%	14%
RUPED	30%	49%	22%

Posted Vehicle Speed - RUPED study shows a much greater range in the posted speed limit, with almost an equal number below and above 35 mph:

	25 mph or less	26-35	36-45	46-60
ORI	70%	29%	.5%	.2%
RUPED	30%	25%	20%	25%

Lighting Conditions - Both studies show that the majority of accidents occur during daylight hours, followed by dusk:

ORI	84% daylight, 9% dusk
RUPED	73% daylight, 6% dusk

Type of Area - In both studies, most accidents occurred in residential areas, followed by commercial:

	Residential	Commercial	Industrial	School/ Playground	Open Area
ORI	73%	16%	1%	.3%	.5%
RUPED	61%	21%	.6%	8.4%	9%

Vehicular Control Devices - Although the studies use different categories, it is possible to tell that most of these accidents occur where there is no vehicular control device present:

ORI	88%
RUPED	93%

Precipitating Factors - Both studies listed short time exposure, running, distraction and parked cars as primary precipitating factors. In addition, ORI listed supervision of children as a factor:

	Short time Exposure	Running	Distraction	Parked Cars	Supervision of Child
ORI	30%	8%	19%	43%	28%
RUPED	18%	37%	10%	19%	

Nevertheless, running was much more important in RUPED and parked cars were more important in ORI.

Accident Type - ORI and RUPED accident types are not, strictly speaking, directly comparable. Nevertheless, in ORI Dart-Out first accounted for 25% of all crashes and Dart-Out second accounted for only 9%. In RUPED the figures were 11% versus 10%.

Recommendations:

To determine what (if any) support materials were needed to successfully place the film Willy Whistle into rural and suburban schools, Dunlap staff presented the film and interviewed teachers at three representative schools. A summary of these interviews

Briefly, the Willy message is good as it stands, but certain transition materials will be necessary to enable teachers to use the film effectively in different environments. Specifically, the following message contents are necessary to make the transition from the situations shown in the film to a rural traffic situation.

1. Child suburban pedestrians are more familiar with streets that have neither curbs nor sidewalks. These children have most likely seen and crossed urban streets with sidewalks and curbs when visiting a town or city, but this accounts for a very small part of their total traffic experience. Therefore, it is necessary to teach these children to identify the edge of the roadway and stop and look left-right-left at that point.

2. Child pedestrians in suburban/rural areas are likely to encounter curves in the road, trees, shrubs, etc., as visual obstructions as well as parked cars. Therefore, it is important that they learn to stop at the point at which they can just see around any obstacle, look left-right-left and cross when it is safe.

3. Child pedestrians in suburban/rural areas are most familiar with quiet roadways. Indeed, motor vehicles may use the roadway so seldomly that the children may not expect a car to ever be there and not even bother to look. It is important then to remind these children that cars do go by and, since they don't know when, they must always look left-right-left before crossing.

4. Unlike the long, straight streets protrayed in the film, rural child pedestrians are more likely to encounter very curving streets, often hilly. When these bends occur at crests in the roadway, it is often impossible to see a vehicle until it is too near to safely cross. An important message then to tell children is to use their ears to help them decide if it is safe to cross. That is, listen, then look left-right-left before crossing.

Taking into consideration the message contents and teacher recommendations, we believe the following support materials have merit.

- Two posters, one portraying four or five urban street situations and the other portraying four or five rural street environments. The posters could be used as a teaching tool immediately following the film. They will also give needed reinforcement by remaining on view in the classroom.

- Approximately six worksheets (spirit masters to be run off in quantities as needed) which will:

  - clarify differences in urban versus rural traffic environments

  - reinforce message

  - encourage discussion and student involvement

- Descriptions of optional teacher lead activities, such as:

- role plays

- games to improve left and right discrimination, including tracing, coloring and cutting out "hands," attaching to popsicle sticks and holding up the correct "hand" as directed in a Willy Whistle song

- Background information including accident data written in such a way that it would be sent home to parents. This information would acquaint parents and teachers with the characteristics of the problem and the need to instill the stop-left-right-left safe crossing sequence.

The specific message to parents and teachers should be:

Pedestrian accidents are a leading cause of death and injury among young children. Exhaustive studies of these accidents have revealed that children often dart out, midblock, often from between parked cars or out from behind shrubs and trees. Drivers have little or no chance to react to such dart out behavior. Studies have shown that an effective remedy for this problem is for the child to stop and look left-right-left before entering the traveled portion of the roadway. This gives the child a chance to see oncoming vehicles and the driver a chance to see the child.

Each of the recommended materials was drafted and is shown on the following pages with focus goup comments.

Dear Principal:

The enclosed materials were developed to accompany the film Willy Whistle. Overall objectives of the materials are:

- To interest and challenge students while reinforcing the safety message introduced in the film.
- To encourage teacher and parent involvement in pedestrian safety training and reinforcement of training.
- To provide transition materials to clarify differences in urban versus rural traffic environments.

The film's message is specifically addressed to kindergarten, first and second graders. Therefore, the materials must each be appropriate to one or more of these grade levels. The materials include three teacher directed activities, five puzzles that students can complete on their own, a description of three optional activities to be used at the teacher's discretion, two 18" x 36" posters and a pamphlet providing background information and accident data. A brief description of each follows:

Teacher Led Activities

1. The Hand Game. It is essential that the stop-left-right-left safe crossing sequence be learned and practiced. This activity was written to give very young children practice in distinguishing their left from their right. Although the song is appropriate for kindergarten and first graders, it is possible that older children could benefit from a short practice period identifying left from right.

2. Traffic Situations. This activity was designed to encourage students to portray and discuss traffic situations similar to those they encounter every day. The activity is appropriate for each of the grade levels. The teacher may wish to work more closely with very young children and together devise and discuss pedestrian situations. Older students may be divided into small groups to work on their own. The class, as a whole, can then discuss each of the situations the groups developed.

3. Role Play. The role plays were written to permit children to practice the safe crossing procedure without the danger of actually entering the roadway. The role plays should be used with each class. The teacher can make the situations more or less complex by the addition of visual obstructions and/or "traffic." This flexibility will permit the teacher to adapt them successfully to suit student needs.

Puzzles

These puzzles were designed to reinforce the film's safety message and provide "quiet time" activities for some students while the teacher is working with others.

1. Xactly Right. This activity was designed to clarify certain differences in urban versus rural traffic environments, particularly curb vs. edge of the road and various visual obstructions. The puzzle is especially appropriate for kindergarten but may be used effectively with first graders.

2. The Stamp Game. Nine traffic scenes are illustrated. Three of the pictures show children behaving safely; six of the pictures illustrate poor crossing habits. Students are required to cut out the "stamps" at the top of the page and paste each stamp over the appropriate portion of the picture to "correct" the picture. This activity is appropriate for kindergarten and first graders.

3. Dot-to-Dot. This is a quiet activity which will interest and amuse first graders.

4. X Word Safety. This crossword puzzle will introduce relevant safety terms in a manner entertaining to first and second graders.

5. Safety Words. This word puzzle will reinforce the proper use of safety related terms. It was designed for second graders.

Optional Activities

Although designed to complement and reinforce the film's safety message, these activities are not essential. Their use, then, is at the teacher's discretion.

1. Rebus Posters. This activity was written to encourage children to think about pedestrian safety. The activity is appropriate for either first or second graders. If a teacher feels that Rebus posters are too difficult, students may be asked to design and color "regular" posters.

2. Haiku. This activity was designed to provide an entertaining and unusual manner of looking at pedestrian safety. The activity is appropriate only for older students.

3. Community Visitors. It is often helpful to involve members of the community in teaching safety. Students are usually quite attentive to these "strangers" and these visitors can bring expert knowledge of the subject.

Posters

These posters were designed to help students make the transition from the very urban situation shown in the film to encompass the children's experience in a variety of situations, including rural. The posters were designed to be used as a teaching tool as well as providing reinforcement.

Pamphlet

This brief pamphlet includes background information and accident data. The pamphlet was written to acquaint parents and teachers with the characteristics of the problem and the need to instill and enforce the stop-left-right-left safe crossing sequence.

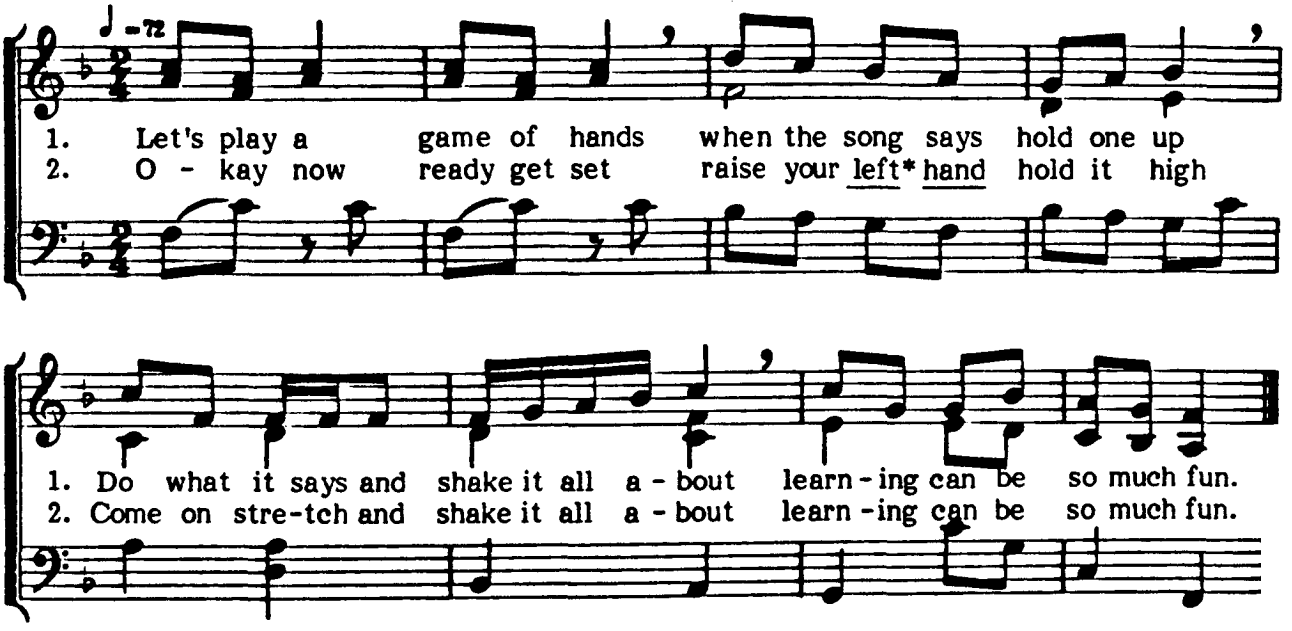
Teacher Led Activity: The Hand Game.

Have students trace each of their hands on heavy weight paper. Have students color their right hand yellow and their left hand purple so that they resemble the gloves worn by the children in the film.

Have children cut out the hands and attach popsicle sticks to the backs.

Now play and sing the song "The Hand Song." As the second verse is repeated, say the name of the hand which should be raised.

The Hand Song



*As the second verse is repeated, the teacher or a student yells out which hand is held up.

(music from "This Old Man")

Teacher Led Activity: Traffic Situations.

Paste each of the figures to cardboard. Cut out. Have students pin the figures onto the bulletin board to depict various situations they might encounter when crossing the roadway. In the mock-up, students should include some or all of the following items as the bulletin board background setting to which situations will be created for discussion: roadway, lane markings, sidewalks, curbs, fields and driveways. Have the class determine what would be the correct thing to do.

Included for teacher use are large figures of each of the following:

- car (2 or 3)
- truck
- bus
- bike
- pedestrians
  - adult
  - children
- tree
- shrubs
- house
- utility pole
- emergency vehicle
- various road designs
  - hills
  - curves
  - sidewalks
  - driveways

Teacher Led Activity: Role Plays.

Divide class into small groups. Give each of the groups a different situation to act out. For additional situations, include traffic coming from either or both directions and/or add visual obstructions.

Designate an area of the classroom as the roadway. Use chairs for cars, desks as visual obstructions, etc. Have students act out their situation and have the class react.

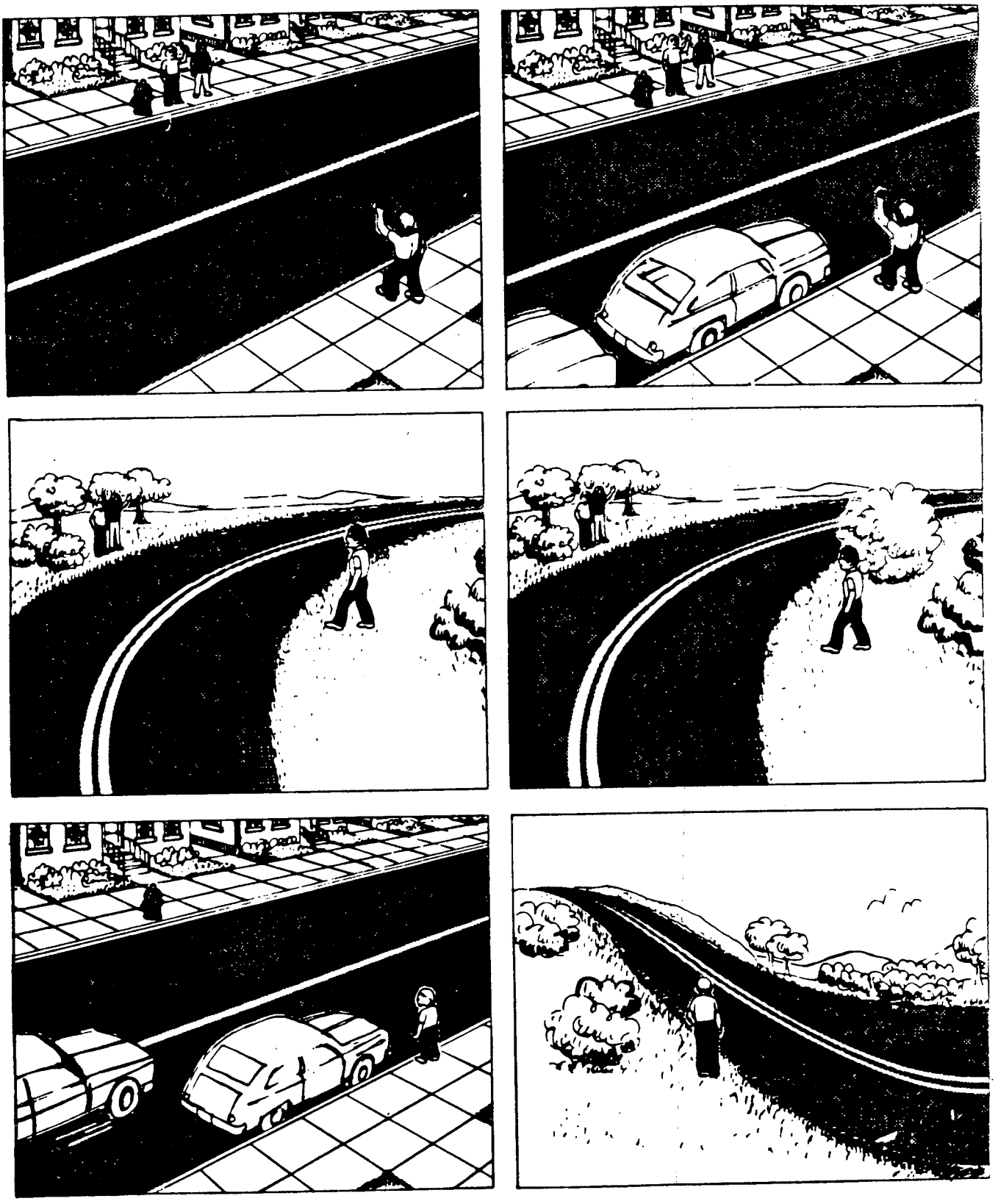
Situations:

- Two children walking to school; cross roadway, not at an intersection.
- Three children playing catch; ball rolls into the roadway.
- One child wants to join a second who is waiting across the street.
- Three children are chasing a fourth; the child runs into the road to get away.*
- Two children crossing roadway; there is a visual obstruction (parked car or tree) present.

*Teacher should note that a similar problem is a child chasing or following a pet into the roadway.

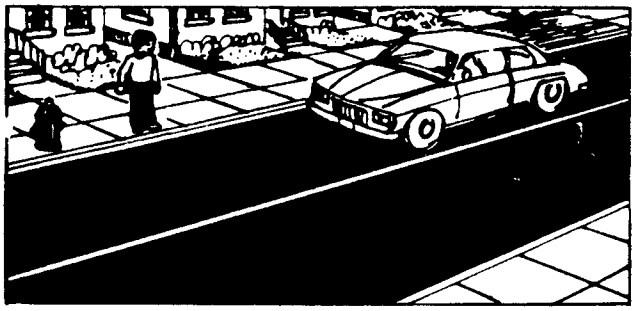
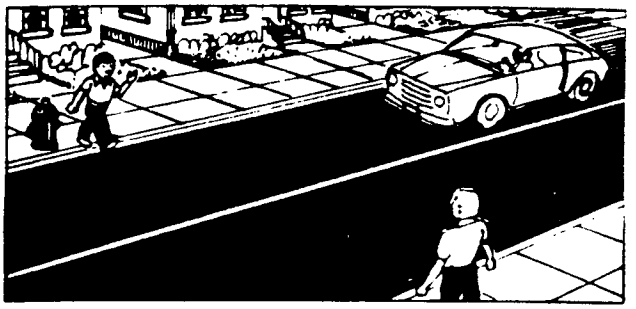
Xactly Right

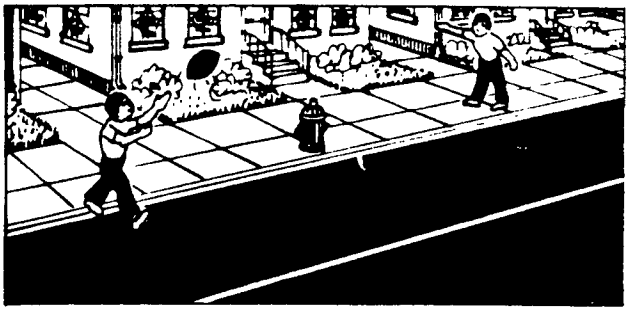
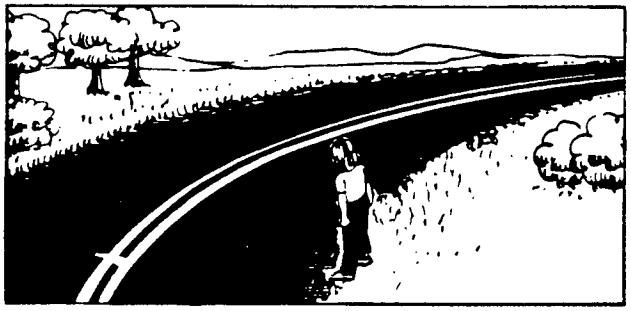
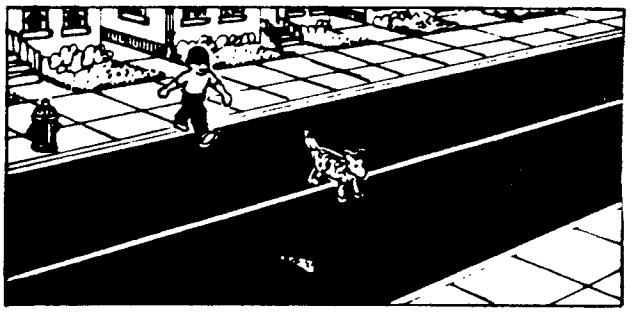
Put an X where the child should stop and look left-right-left before crossing the road.

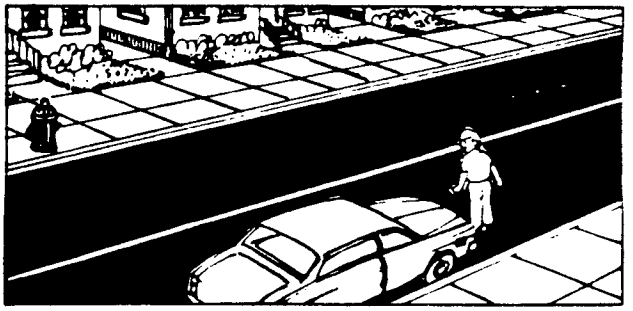
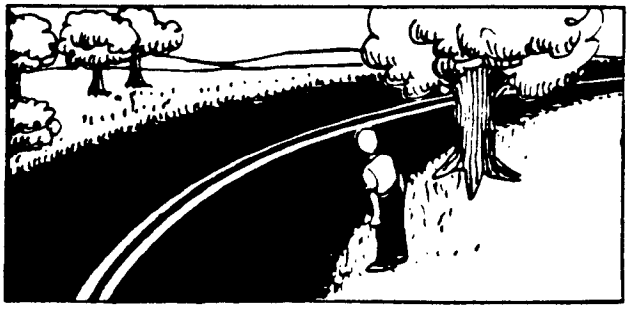


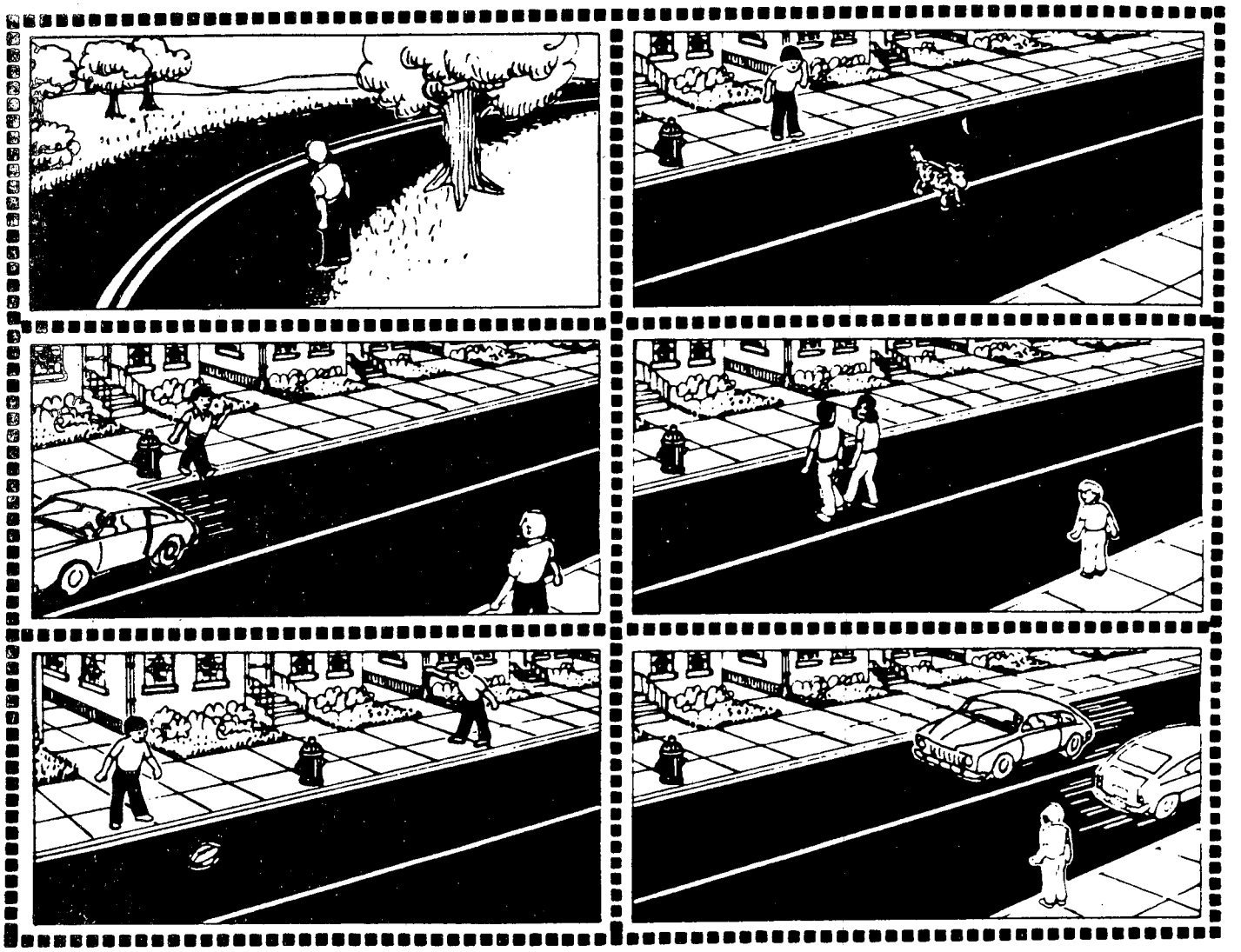
The STAMP GAME

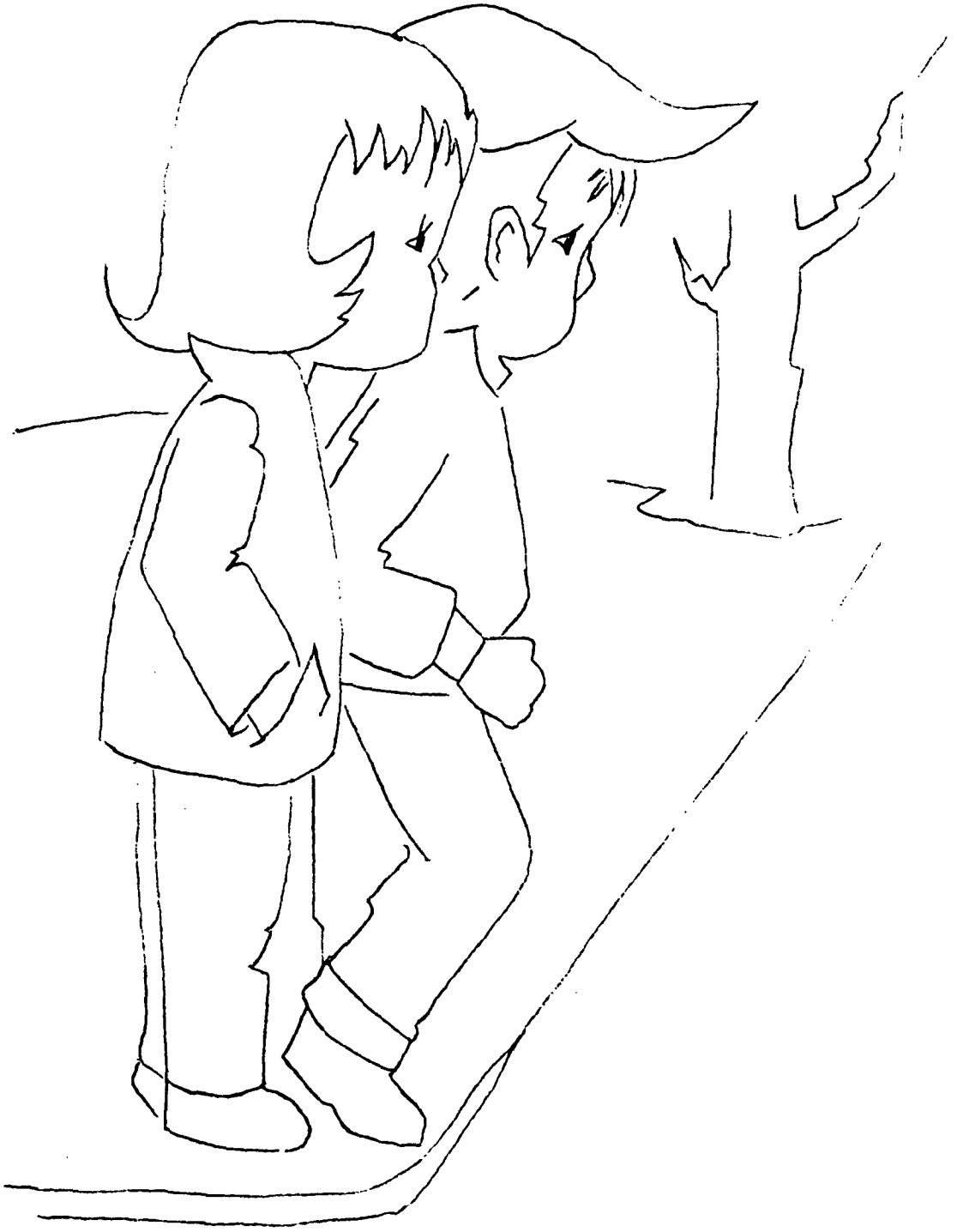
Look at the pictures. Can you find the six pictures which show a child doing something bad? Cut out the stamps on the next page and paste each stamp over a picture to "correct" it.

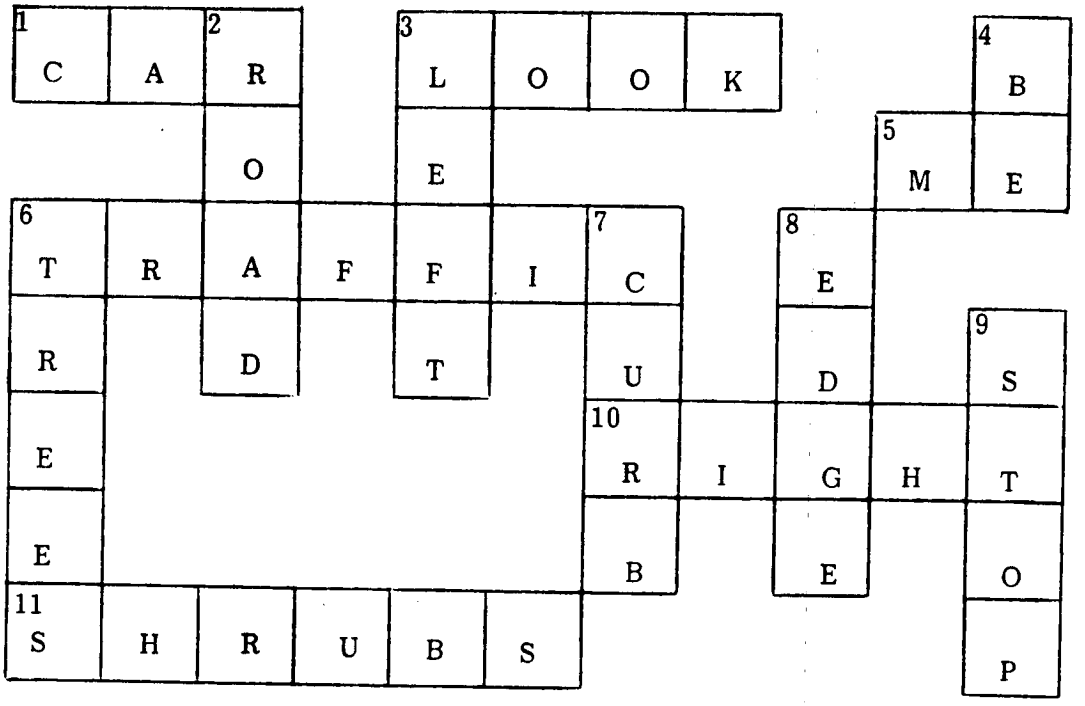








X WORD SAFETY



Below are the clues for the X Word Safety Puzzle. See if you can complete the entire puzzle.

Across

1. You ride in a _ _ _ _.
3. _ _ _ _ _ before crossing the road.
5. Safety is up to you and _ _.
6. Look for _ _ _ _ _ _ _ _ before crossing the road.
10. Willy Whistle says: Always look left, _ _ _ _ _ _, left.
11. Bushes or _ _ _ _ _ _ _ may stop you from seeing cars.

Down

2. Be careful when crossing a _ _ _ _ _.
4. To _ _ _ safe, always stop and look for traffic before crossing the road.
6. Sometimes it's hard to see around the wide trunks of _ _ _ _ _ _ or through their branches.
7. Willy Whistle says: Stop at the _ _ _ _ _ of the road.
8. Stop at the _ _ _ _ _ of the road.
9. _ _ _ _ _, listen and look.

SAFETY WORDS

Each of the words below have something to do with traffic. Finish the sentences and make a list of other words using the letters from each word.

C - curb
A - accident
R - road

- Always stop at the c _ _ _ _.
- Running can cause an a _ _ _ _ _ _ _ _.
- Always look before crossing a r _ _ _ _.

R - right
O - off
A - automobile
D - drive

- Always look left, r _ _ _ _ _ _, left.
- Look before you step o _ _ _ the curb.
- You ride in an a _ _ _ _ _ _ _ _ _ _.
- Someday you will d _ _ _ _ _ a car.

R - run
I - into
G - go
H - hit
T - tag

- Don't r _ _ _ _ into the street.
- Look before going i _ _ _ _ the road.
- Stop, listen, look, and if it's safe, g _ _.
- Don't play t _ _ _ in the street.

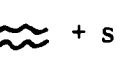
S - stop
T - traffic
O - only
P - people

- S _ _ _ _ _ at the edge of the road.
- Always look for t _ _ _ _ _ _ _ _.
- O _ _ _ _ cross the street when it is safe
- P _ _ _ _ _ _ _ _ must be careful when crossing the road.

Optional Activities:

1. Have children write Rebus stories or posters about pedestrian safety. Students may wish to color the Rebus pictures. Other students can guess the poster slogans or decipher the stories.

   Sample poster slogan:

   Al +  + s  ← → ←

   (always look left, right, left)

2. Older children may enjoy writing haiku (high koo). This is a kind of poem that has been written in Japan for centuries. These poems have only three lines. They do not need to rhyme but each line has a definite number of syllables.

   Line 1 - - - - - - - - - - - - - 5 syllables
   Line 2 - - - - - - - - - - - - - 7 syllables
   Line 3 - - - - - - - - - - - - - 5 syllables

   Although nature is the subject of traditional Japanese haiku, this is not necessarily true of modern haiku. Below are examples of modern haiku about pedestrian traffic.

   Silly Sally said
   I won't stop, look or listen
   But we know better.

   Randy runs a lot
   Up and down and all around
   But not in the street.

   Running and laughing
   Having lots of fun playing
   Never in the road.

3. Contact the local police department and arrange for a police officer to visit your class and discuss pedestrian safety.

   Other community visitors you may wish to invite to class:

   - Someone who drives for a living (taxi driver, trucker) to talk about pedestrian safety and bring their vehicle
   - A school bus driver to discuss safety practices
   - A parent to talk about safety
   - A crossing guard to discuss his/her duties

Two posters, each 18" x 36".

One poster portrays four urban street situations:

- a straight roadway with curb
- a straight roadway with curb and parked cars
- a straight roadway with sidewalk and curb, traffic coming from the right
- a straight roadway with curb, traffic coming from the left

In the center is the message in bold print, "**Stop at curb and look left-right-left.**"

On the back of the poster are directions for its use:

- present poster immediately before showing film
- discuss the four situations and tell children to watch the film closely to see what they should do in each of the situations
- after the film, point to each situation and ask children what they should do

  Answer:

  Situation 1 - stop at the curb, look left-right-left. Since there is no traffic, cross.

  Situation 2 - stop at the curb. Walk out so they can just see around the parked car. Look left-right-left. Since there is no traffic, cross.

  Situation 3 - stop at the curb, look left-right-left. There is a car coming from the right. Wait until it passes. Then, look left-right-left and if there is no more traffic, cross.

  Situation 4 - stop at the curb, look left-right-left. There is a car coming from the left. Wait until it passes. Then, look left-right-left and if there is no more traffic, cross.

- hang poster in a prominent area

The second poster portrays five rural street situations.

- a curving road, no sidewalks or curbs
- a curving road with a tree as a visual obstruction
- a roadway with driveways coming into street
- a curving road with traffic coming from the right
- a roadway with crest of hill as a visual obstruction

On the back of the poster are directions for its use:

- present urban poster as directed
- view film
- discuss urban poster as directed
- tell children that they have just learned how to cross city streets safely
- now present this poster—discuss how each of these situations differ from those presented in the film—ask students what they should do in each situation

Answer:

Situation 1 - stop at edge of road, look left-right-left. Since there is no traffic, cross.

Situation 2 - stop at the edge of the road. Walk out so they can just see around the tree. Look left-right-left. Since there is no traffic, cross.

Situation 3 - stop at the edge of the road. Look left-right-left. Check that no vehicles are pulling out of the driveways. Cross.

Situation 4 - Stop at the edge of the road. Look left-right-left. There is a car coming from the right. Wait until it passes. Then, look left-right-left and if there is no more traffic, cross.

Situation 5 - you cannot see if a car is coming over the crest. You could get hit in the street. Walk down the sidewalk until you are far enough from the crest that you can see traffic. Then, stop at the edge of the road. Look left-right-left and when there are no cars, cross.

FOCUS GROUP

SUMMARY AND CONCLUSIONS
(Children)

#13-17 Willy Whistle (Film and Teaching Materials)

All of the children in both the first and second grades seemed to have enjoyed participating in this program. They learned from it and had fun while learning.

Their responses were enthusiastic and demonstrated that the message of stop, look left, right and left again had been well understood.

The teaching materials which accompanied the film were designed to enable the children to relate the message they received from the urban/city streets in the Willy Whistle film to the more rural/suburban streets on which these test audience children live. It was clear from the discussions with the chidren that most of them successfully made this transition. They understood perfectly well that the safe behavior measure they had been taught applied equally to the roads they cross in the middle of town and the quiet roads on which they live.

The teaching materials generally were well received by the childre. Some of the first and second graders had problems with the crossword puzzle. They commented that the words were a little hard. Some of the children in both grades suggested that a "word bank" would have been helpful.

The Dot-to-Dot game was considered too easy by some second graders, although all groups appeared to have enjoyed it. Many of the children had some difficulty in identifying the numbers as they were printed too small on these draft materials. The stamp game also gave some difficulties to some of the first graders but appeared to be acceptable to the second grade children. The children in both grades especially liked the role playing games and also enjoyed the cut-outs and song game.

In summary, this program appears to be well suited to a target audience of first and second grades. The childrens' responses indicated that they had acquired the knowledge for safe behavior when crossing the street and they obviously enjoyed the program.

FOCUS GROUP

SUMMARY AND CONCLUSIONS
(Teachers)

#13-17 Willy Whistle (Film and Teaching Materials)

The teachers of both first and second grade were enthusiastic about this program. They felt that the children had understood the message and all the teachers enjoyed teaching the program. They had some suggestions for improvement in the teaching materials but overall, they thought the program to be a good one.

With regard to the message. All the teachers felt that there was no doubt that the safety message had been received by the children, and that the necessary transition had been made from the urban/city streets in the film to more rural environment experienced by these children.

None of the teachers had the opportunity to make behavioral observations and they noted that although the children were enthusiastic while working with the program there is no way to tell whether it will affect either short or long-term behavior. The general feeling of the teachers was that to be successful in changing behavior, constant reinforcement would be necessary.

In general, the teachers found that the one-week period was sufficient to teach this program. One teacher noted that she did it in two days, however, she did not use all of the activities. It was the general feeling of the teachers that this program is very flexible. The first grade teachers felt that they would like to spread it out over a month so that the message could be reinforced. All agreed that the program would not be a time burden and could be fitted into existing teaching schedules.

All of the teachers agreed that the teaching materials enhanced the presentation of the film. They thought that a Teachers' Guide would be a useful addition. They felt the need for more direction and more information with regard to the goals of the program and the use of the materials.

With regard to the activities. They liked most of them but identified some problems. The teachers said that the numbers and letters in the Dot-to-Dot game were too small and that children had difficulty discriminating. They needed help from the teachers to accomplish this task although the children enjoyed the activity.

The teachers at both grade levels said that the Crossword Puzzle was too hard and the children again needed help from the teacher. They suggested that a word bank be provided, and both of the first grade teachers said that they had successfully used a word bank for this project with their classes.

Distinguishing left from right is still difficult for these youngsters. To help with this problem, the children used cut-out hands in two colors to conform with those used in the Willy Whistle film. The teachers who tried the glove concept, said they did not feel it was too successful. Instead, one teacher had the children color a purple dot on one hand and a yellow dot on

the other and the teacher used the gloves as a demonstration of left and right. She said that this was easier for the children.

The children liked the song and the role playing game was considered to be a good teaching tool by all of the teachers. In fact, the role playing was considered by all teachers the most useful activity and best teaching method in the program.

The Stamp game caused some problems. The pictures were too small and some of the first grade children had trouble discriminating the slight differences between the right and wrong versions. It was suggested that the use of color would aid in discrimination. In addition, if the pictures were larger they should be printed fewer to a page. If these changes are made, the children would enjoy the game more.

With regard to Exactly Right. Only the first-graders used this activity. Again, they had trouble with discrimination because of the size of the pictures and lack of color. They were however, able to perform the task with help.

The prototype materials which were given to the teachers for the Cut-Out game proved inconvenient for the teachers. Only one teacher attempted to use them. All the teachers agreed, however, that in their final form these materials would be useful and easy to use.

The Word game was only played by the second-grade students. Only two words caused problems and the students were able to work it out. The teachers suggested that again, a word bank might be included if this activity were to be used by first-graders. It was also suggested that teachers like to have activities that the children can perform independently. The first-grade teachers, especially, felt that all of these activities required guidance by the teacher. More independent work could be achieved by some of the changes suggested.

The first grade teachers though that if the materials were bound in some way it would be helpful. All of the teachers agreed that more use of color in the illustrations would enhance these materials.

The number of activities were sufficient and the teachers felt that the activities corresponded to the objectives of the film.

All of the teachers said they would use this program if it were available to them. However, they pointed out that schools constantly have budget problems and they were not sure how much priority this program would get by the administration if it had to be funded.

In summary, the teachers liked this program very much. They enjoyed teaching it and see a need for such a program in the schools. They felt that it would compliment other safety programs in the schools and hoped that it will become available for use.

I. School Bus

Definition: Children being struck going to or from school bus or at school bus stop.

Behavior (accident generating):

Drivers—

Detection failure caused by visual obstruction, i.e., stopped bus and inadequate search

Misperceive pedestrian intent: "I saw him standing there, and then he just ran out."

Pedestrians—

Short time exposure; running from curb or around bus

Inattentive; concerned with other people or other non-traffic items

Poor path prediction: "I thought he would stop."

Countermeasure Concepts:

Model Regulation for School Bus Pedestrians - Pass Vehicle:

appearance and equipment recommendations for school buses

inspection of school buses

Drivers—qualification training course
training and "School Bus Driver Pamphlet"

Pedestrians—training for 6th graders and below

Motorists--public education—proceed at prudent speed and be prepared to stop for flashing yellow lights; stop and remain stopped for flashing red lights.

Description: (Based on RUPED crosstabs N=46)

Driver Age - 26% of drivers involved in school bus related accidents were 20-29 years of age; 19.6% each in the age groups 15-19 and 30-39; 13% in the 40-49 age group; 10.9% in the 50-59; 4.3% in the 60 plus and 2.2% in the less than 15 age group; 4.3% were classified as missing.

Driver Sex - Males are more often involved in school bus related accients than females (60.9% vs. 32.6%). 6.5% were classified as hit and run.

Striking Vehicle - While the majority of pedestrians were hit by cars, fully 22% were hit by the bus itself.

Date/Time - School bus related accidents are most likely to occur during the hours 0700-0800 (47.8%) followed by the hours 1500-1600 (32.6%). No accidents were reported to occur between the hours 1800-0559. Thursday is the most likely day for these accidents to occur (30.4%), Tuesday and Wednesday the next most likely (19.6% each), followed by Monday, Friday and Sunday (15.2%, 13% and 2.2%, respectively). These accidents occur most often in January (19.6%), March (17.4%), and May (17.4%); February (13.0%) and October (10.9%) the next most likely, followed by April (8.7%) and November and December (4.3% each); July and September each had 2.2%.

Pedestrian Age - 4% of pedestrians involved in school bus related accidents were in the age group 1-4; 41% in the age group 5-9; 30% in the age group 10-14; 22% in the age group 15-19; and 2% in the age group 50-59.

Pedestrian Sex - Males and females are involved in school bus related accidents almost equally (56% vs. 45%, respectively).

Vehicle Maneuver - 65.2% of school bus related accidents occurred when the vehicle was going straight ahead, 13% were starting in roadway or passing, 4.3% were backing, and 2.2% were making left turns or slowing or stopping.

Pedestrian Action - 43.5% of these accidents occurred when the pedestrian was getting on or off a school bus, 28.3% when crossing the roadway not at an intersection, 8.7% when crossing at an intersection or standing in roadway, 4.3% when walking with traffic and 2.2% when moving from behind a parked car and standing in roadway.

Recommendations:

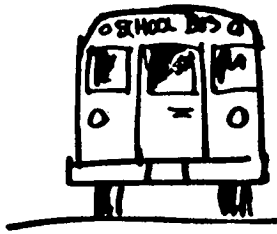
A School Bus driver pamphlet was designed under an earlier contract. The primary message in this pamphlet is:

When a child crosses in front of your bus, the bus blocks his view of cars and your view of him. Always check to be sure that a child is not in front of your bus (and indeed safely across the street) before: turning off your flashing lights and permitting traffic to start; pulling out.

This pamphlet and focus group comments are shown on the following pages.

THEY ARE PEDESTRIANS TOO!

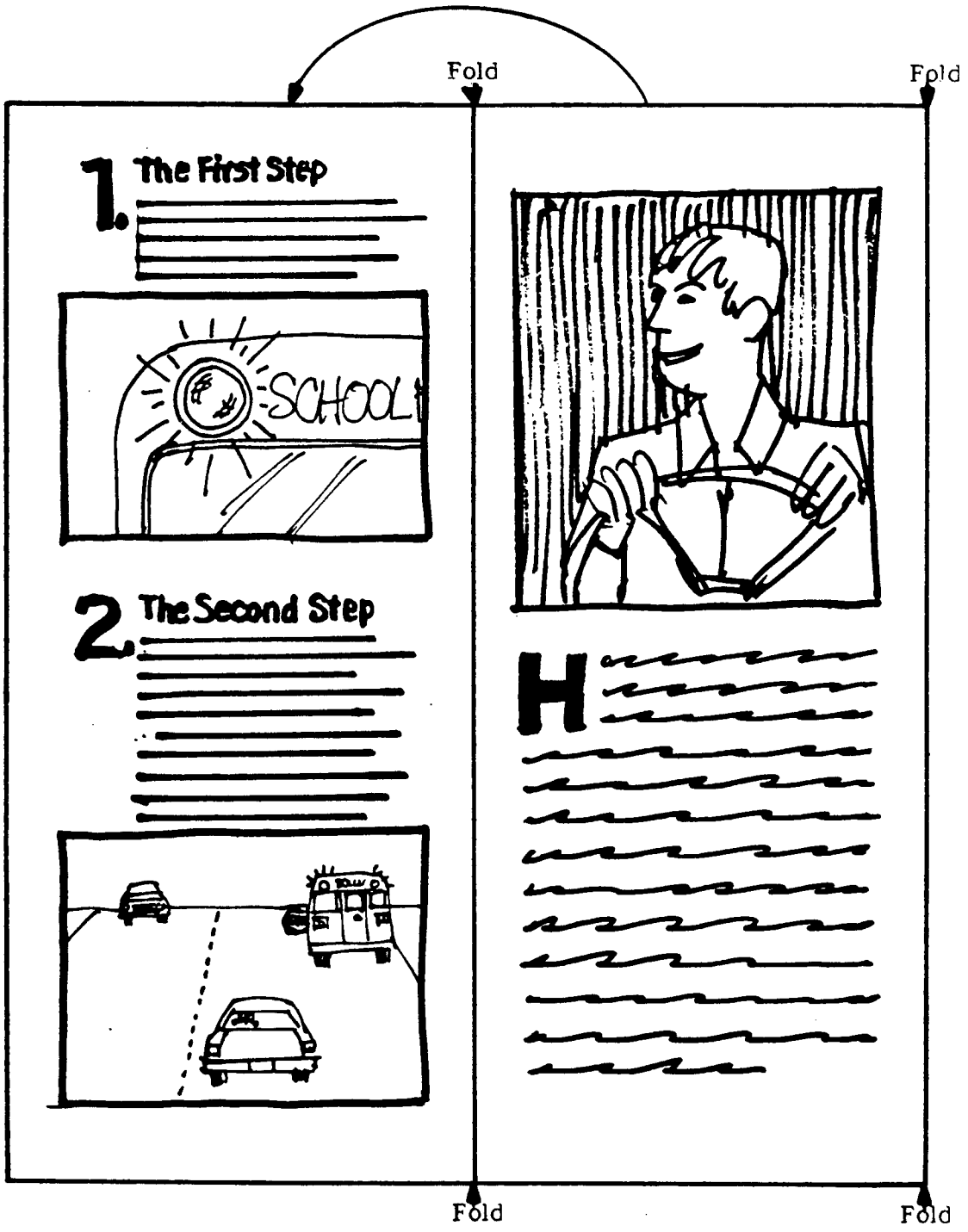
How to insure the safety of your school bus passengers when they're getting on and off your bus.



Front Panel Unopened

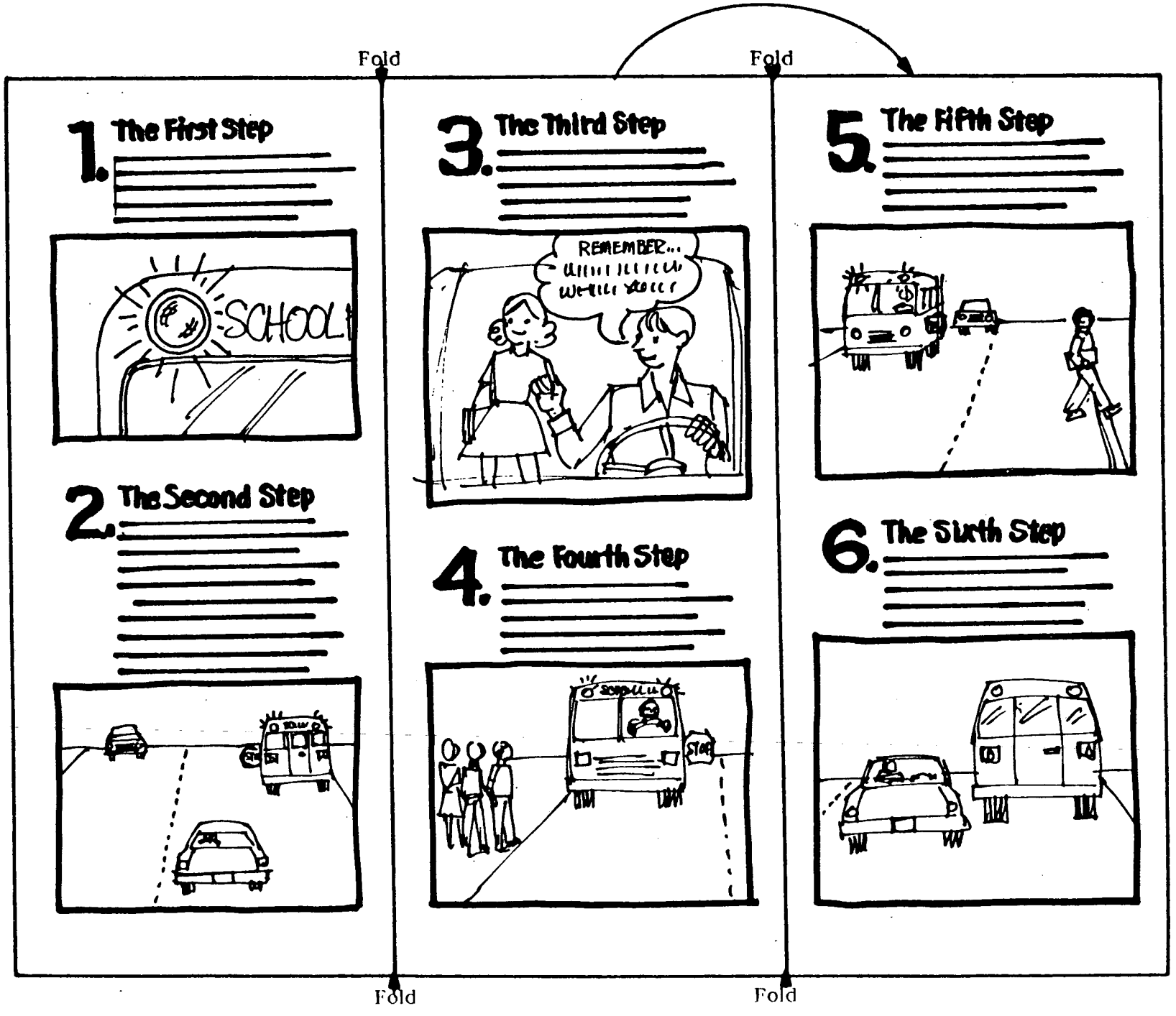
Rear Panel Unopened

School Bus Driver Pamphlet (77% full scale)



1st Panel Opened

Schcol Bus Driver Pamphlet (77% full scale)



Fully Opened

School Bus Driver Pamphlet (77% full scale)

When the pamphlet is opened, the following text appears on the outside panels:

In the first panel underneath the bus driver is the following:

> *Having good driving habits is just one way to insure the safety of your school bus passengers. But what happens when they become pedestrians? It happens each time they get off your bus. Does your responsibility to them end at the folding doors? Of course not. Yet how can you, the driver, protect them outside your bus? It's easy if you follow these six easy steps.*

In the middle panel underneath the school bus, the following text appears:

> *It's that easy. Remember that the children on your bus are more than just passengers. They are pedestrians, too. And by following these six simple steps you'll be doing all you can to make their journey as safe as possible.*
>
> *A public safety message from the National Highway Traffic Safety Administration.*

When the pamphlet is fully opened with all three interior panels exposed, the text is as follows:

The First Step

From 100 feet to 500 feet before every stop to pick up or let off passengers, the amber lights on your bus should be turned on. This tells nearby motorists that you intend to stop.

The Second Step

Always stop the bus as far to the right side of the road as is possible and safe. When stopping to pick up passengers or release them, use your flashing red lights and the stop signal swing arm. These tell approaching motorists to stop from both directions.

Give motorists time to react to your signals. When they have stopped from both directions, open your doors and release or take on passengers. Use your warning signals until all the children are safe.

The Third Step

Make sure all the children leaving your bus are calm and alert to the danger around them. A simple reminder from you to "stop and look left-right-left" will help reduce any unsafe behavior.

The Fourth Step

Those children who must cross the street should line up "five giant steps" away from the front of your bus and wait for your signal. After you've checked to see that no cars are passing in either direction, signal the children to look and then cross the street.

The Fifth Step

Be sure the children are safely across the street and no one is lurking in front of the bus. Then turn off your flashing red lights and stop signal.

The Sixth Step

When you can, allow any following vehicles to pass by staying stopped for a while as far to the right as possible, with the signals turned off. Motorists who have been following you for some distance can become impatient and try to pass the bus when it's dangerous to do so.

Before moving out into traffic again, turn on the left turn signal and take a last look for any kids who might be lurking in front of the bus.

FOCUS GROUP

SUMMARY AND CONCLUSIONS

School Bus Drivers

This pamphlet was well received by both bus drivers and trainers from the privately operated school bus company as well as by those from the system operated by the municipality. Although two problem areas were noted, in general, the pamphlet describes procedures they already follow and they think a pamphlet such as this would be extremely useful.

All of the reviewers liked the message and thought the message media appropriate. They felt that a pamphlet such as this would be useful for new drivers as part of their training and would also serve to refresh safety ideas in experienced drivers. A trainer mentioned that a Spanish language version would be useful as a large proportion of his drivers are hispanic and have some problems with the English language. The reviewers also pointed out that school bus safety was dependent on others such as children and motorists. They felt that children and parents should be made aware of the dangers and that motorists should also be educated in school bus safety.

The fourth and sixth steps were the problem areas of concern to the reviewers in terms of negative indications. They felt that it is essential to point out to drivers that when signaling children to cross the street that they must never use a hand signal; their suggestion was to nod the head. A motorist could interpret a hand signal as permission for him to move, thus exposing the children to hazard. They feel that it is very important to make this point clear in the pamphlet. There was also concern regarding the instruction to line up "five giant steps" away from the bus. They pointed out that five giant steps for a kindergarten child would not make the child visible. Instructions to stand where they can see the driver would be better. In addition, instructions to check all mirrors would be appropriate at this stage--it is the practice which is followed by these drivers.

With regard to Step 6, all of the reviewers were concerned with the suggestion that after discharging or loading children that "When you can ..." they remain "stopped for a while ..." "with signals turned off ..." to allow motorists to pass. They feel that it is never safe to do this. They pointed out that when discharging children, there is always a chance that a child will leave something on the bus, see the bus still there, run back and dash in front of passing traffic. In the case of boarding children, unless the driver knows exactly how many children he is supposed to pick up at a particular stop, there is always the chance that a straggler might run across the street just as the traffic starts to move. In addition, this situation could be especially hazardous if there are children waiting for other buses. They feel that the only acceptable way to allow motorists to pass is to choose a safe place to pull of the road somewhere other than at a bus stop. However, it should be a place where motorists can pass legally and the driver should not signal permission as this might make him liable in the case of an accident.

The drivers generally had no problem with technical accuracy. Minor points were made. The driver from the privately operated bus company noted that the first step couldn't be complied with in their state as the buses don't have amber lights. Secondly, they are taught to turn on their red lights no less than 50 feet and not more than 200 feet from a bus stop. They also felt that 500 feet is

excessive and might cause motorists to take chances on passing. The municipal drivers, who operate with amber lights, had no problems with this step except they, too, considered 500 feet prior to a stop an excessive distance to start operating their warning lights. They feel 100 feet is most appropriate. Mostly they use the 50-feet rule on side roads and allow more distance when they are on a road with faster moving traffic.

With regard to completeness/scope, those drivers who do not have amber lights are trained to use their turn signals as a warning to other motorists that they are going to stop. Therefore, they consider this to be a "first step" which they would like included in the pamphlet. In addition, they would have liked some information conveyed regarding how to operate in a school yard. They said that starting and stopping in a school yard was quite different from operating on the road and that there are many dangerous situations which have to be dealt with. They also noted that the pamphlet appears to be directed toward discharging children and that there are important instructions that could be included with regard to picking up children, such as where to stop the bus in relationship to where the children are standing and what to do about stragglers.

In summary, the trainers and drivers were impressed with the pamphlet. They felt that there is a need for such information and they are not aware of any similar publication. They would like to see some changes, but in general they were quite enthusiastic with the concept and would like the pamphlet published and distributed.

J. Mailbox

Definition: Pedestrian was struck going to or from a mailbox or newspaper box.

Behavior (accident generating):

Drivers—

Drivers misinterpret the pedestrian's intent: "She was standing in front of the mailbox and just ran out."

Drivers were moving too fast for conditions

Driver attention conflict—stimulus overload; search not directed at pedestrian

Pedestrians—

Inattentive—pedestrians are distracted by the mail, other people, etc.

Inadequate search—most peds just don't look

Running—short-time exposure

Countermeasure Concepts:

Public Education for parents—

One page flyer mailed directly to parents or as a handout in post offices, supermarkets, etc.

Inform parents of hazards involved in allowing children under 10 to obtain mail; advise parents to have "older children" obtain mail or retrieve mail themselves.

Description: (Based on RUPED crosstabs N=21)

Driver Age - 33.3% of drivers involved in mailbox related accidents were 20-29 years of age; 19% in the 40-49 age group, 14.3% in the 50-59 age group.

Driver Sex - Males are more often involved in mailbox related accidents than females (71.4% vs. 23.8%); 4.8% were classified as hit and run.

Date/Time - 28.6% of mailbox related accidents occur during the hours 1500-1559; 9.5% during each of the hours 1000-1059, 1300-1359, 1600-1659, and 1800-1859. No accidents were reported between 2100-0659. Monday and Wednesday are the most

likely days for these accidents to occur (23.8% each), Saturday (at 19%) and Tuesday and Thursday the next most likely (14.3% each), followed by Friday at 4.8%. Mailbox related accidents are most likely to occur during July (23.8%), May and October (14.3% each). February and April (9.5% each), followed by March, June, August, September and November (4.8% each).

Pedestrian Age - 38% of pedestrians involved in mailbox related accidents were in the age group 5-9; 24% in the age group 1-4; 14% in the age group 60 plus; 10% in each of the age groups 10-14 and 30-39; and 5% in the age group 20-29.

Pedestrian Sex - Males and females are involved in mailbox related accidents almost equally (48% vs. 52%, respectively).

Vehicle Action - 100% of mailbox related accidents occurred when the vehicle was moving straight ahead.

Pedestrian Action - 90.5% of pedestrians involved in mailbox related accidents were crossing the roadway not at an intersection; 4.8% were crossing from behind a parked vehicle; 4.8% were classified as other specified.

Location - 76.2% of mailbox related accidents took place in residential areas, 23.8% in open areas. In 57.1% of the cases, the posted speed limit was 55 or greater.

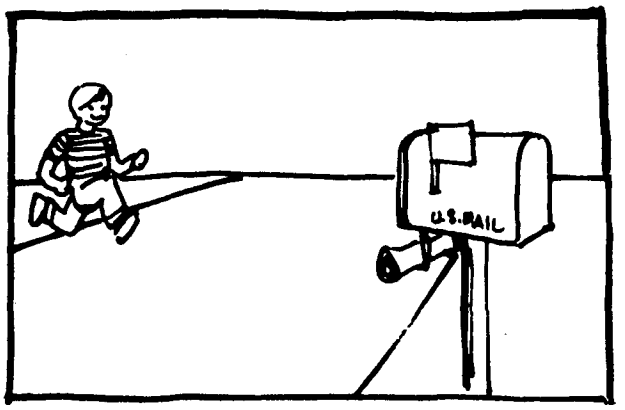
Recommendations:

A Mail Box pamphlet has been designed (under prior contract) for parents of young children. The primary message in this pamphlet is as follows:

Children under 10 often think that being sent for the mail is a treat. Often, these children are thinking only of the mail when running to and from the mailbox. They do not pay attention to oncoming vehicles. Never allow a child under 10 to go for the mail alone. Either accompany the child or send an older child.

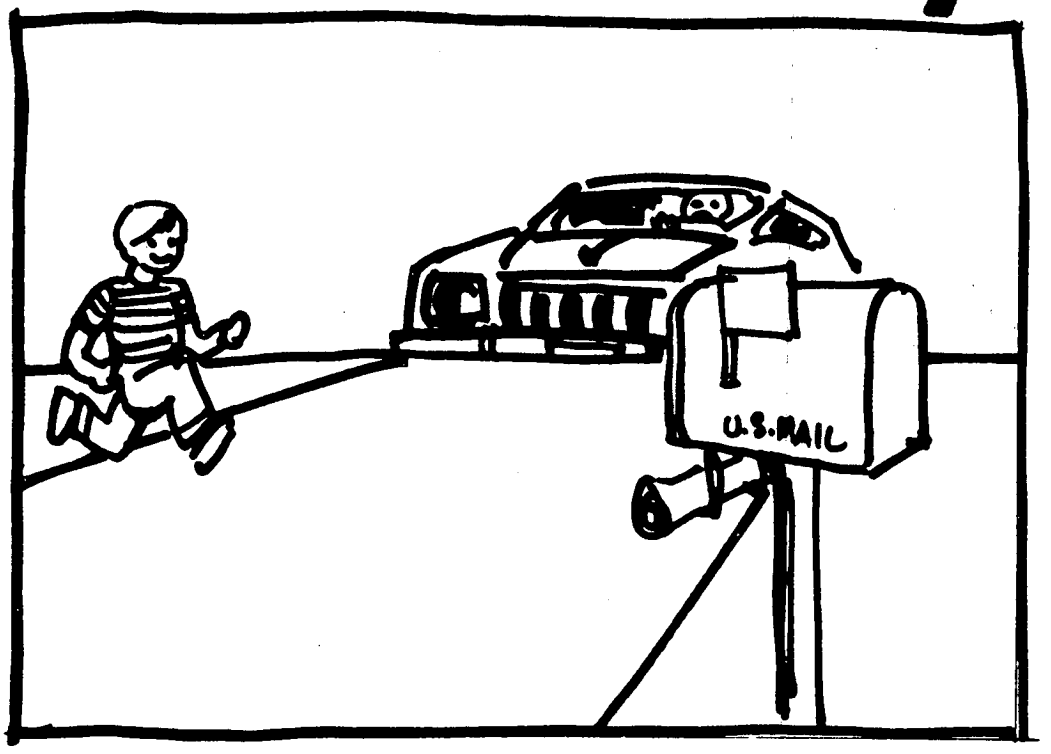
This pamphlet is shown on the following pages.

Getting the mail can be fun for a young child.



Crossing the street to get it...

...can be deadly.



Description of the Materials

The figures show (at 77% full scale) an initial artist's concept of an 8-1/2" x 11" one-page piece on mailbox safety. All the content envisioned for the obverse side of the piece is shown bodily in the first figure. The main body of the content for this printed message is located on the reverse side of the piece (the second figure) and reads as follows:

> *It's a sad fact. Kids under ten just aren't good street crossers. They can easily be distracted-- by playmates, parents, even pets on either side of the street and forget to look for cars.*
>
> *Sending your child for the mail can really complicate things. Childish fascination with the contents of a mailbox or newspaper box can be dangerous. It can even be deadly.*
>
> *If you must send a child for the mail, send an older child; one who knows enough to always look left-right-left before crossing the street. Better yet, go get the mail yourself.*
>
> *Don't be swayed by a child who fusses over not being allowed to get the mail. A pouting child is much better than no child at all.*
>
> *A public service message from the National Highway Traffic Safety Administration.*

K. Disabled Vehicle

Definition: Pedestrian working on or standing next to a disabled vehicle.

Behavior (accident generating):

Drivers--

Poor visibility: blinded by sun or headlights; poor light roadside; visual obstructions

Inadequate search: driver sees vehicle but not pedestrian

Drivers are fatigued, on drugs or alcohol

Pedestrians--

High exposure

Unusual place

Inattentive: working on vehicle or summoning assistance

Countermeasure Concepts:

Model Vehicle Hazard Warning Lights Regulation

Public Education - 60 second television spots, 60 and 30 second radio spots and a one print page describing the situations requiring use of UHWL's and identifying the appropriate cautionary response(s) when approaching and passing a vehicle displaying activated UHWL's.

Description: Based on RUPED and Los Angeles ('73-'75; N=99), Washington ('76; N=10), and New Orleans ('73-'75; N=64).

Driver Age - The median driver age was similar in all data bases. Typically, the driver is a young male, 30-35 years of age:

RUPED - the median age is 30

L.A. - the median age is 35

Washington - the median age is 29

New Orleans - the median age is 35.

Driver Sex - Males are more often involved in disabled vehicle related accidents than females:

RUPED - 70.9% of drivers are male; 17.4% are female, 8.1% are classified as hit and run; and 3.5% are driverless

L.A. - 56.6% of drivers are male; 16.2% are female; 23.2% are classified as hit and run; and 4% are other

Washington - 50% of drivers are male; 10% are female, 20% are classified as hit and run; and 20% are other

New Orleans - 75% of drivers are male; 17.2% are female, 7.8% are classified as other.

Date/Time - The largest number of disabled vehicle related accidents occur between the hours midnight - 6A.M., 8-10 P.M. and 10-12 P.M.:

RUPED - 24.2% of disabled vehicle related accidents occurred during the hours 12-6 A.M., 11.6% during the hours 8-10 P.M., and 23.3% during the hours 10-12 P.M.

L.A. - 14.1% of disabled vehicle related accidents occurred during the hours 12-6 A.M., 19.2% during the hours 8-10 P.M., and 8.1% during the hours 10-12 P.M.

Washington - 30% of disabled vehicle related accidents occurred during the hours 12-6 A.M., 20% during the hours 8-10 P.M., and 30% during the hours 10-12 P.M.

New Orleans - 15.6% of disabled vehicle related accidents occurred during the hours 12-6 A.M.; 15.6% during the hours 8-10 P.M., and 12.5% during the hours 10-12 P.M.

The largest number of disabled vehicle related accidents occur during the weekend:

RUPED - 18.6% of disabled vehicle related accidents occur on each of Saturday and Sunday; 14% on Fridays

L.A. - 20.2% of disabled vehicle related accidents occur on Fridays; 13.1% on Saturdays, and 12.1% on Sundays

Washington - 50% of disabled vehicle related accidents occur on Sundays; 10% each on Fridays and Saturdays

New Orleans - 17.2% of disabled vehicle related accidents occur on Fridays; 15.6% on Saturdays and 14.1% on Sundays.

Most disabled vehicle related accidents occur during the winter months, September - March. These months account for 60-70% of all accidents.

Pedestrian Age - The median driver age was similar in all data bases. Typically, the pedestrian is a young male in his late 20's or early 30's:

RUPED - the median age is 27

L.A. - the median age is 29

Washington - the median age is 31

New Orleans - the median age is 29.

Pedestrian Sex - Males are more often involved in disabled vehicle related accidents than females:

RUPED - 70% of pedestrians are male; 30% female

L.A. - 85% of pedestrians are male; 14.1% are female

Washington - 70% of pedestrians are male; 30% female

New Orleans - 92.2% of pedestrians are male; 6.2% are female, and 1.6% are classified as other.

Location - In all areas, most disabled vehicle related accidents occurred not at intersections, with no marked crosswalks, and no traffic controls. However, the locale varied in the four data bases:

RUPED - 52.3% of disabled vehicle related accidents occurred in open areas; 29.1% in residential, and 16.3% in business/ commercial areas

L.A. - 50% of disabled vehicle related accidents occurred in areas classified as other; 33.3% occurred in business/ commercial areas, and 17.2% in residential areas

Washington - (not reported)

New Orleans - 59.4% occurred in business/commercial areas; 25% were classified as other, and 15.6% in residential areas.

Vehicle Action - The majority of vehicles in all reports were moving forward, straight:

RUPED - 57% of vehicles were moving forward, straight

L.A. - 75.8% of vehicles were moving forward, straight

Washington - 80% of vehicles were moving forward, straight

New Orleans - 71.9% of vehicles were moving forward, straight.

Recommendations:

Television and radio spots directed toward the motorist whose vehicle has become disabled, have been developed under prior contract. The primary message in these materials is as follows:

Working on or near a disabled vehicle in the roadway is very dangerous. Drivers do not expect a pedestrian and therefore, are unlikely to see you. The situation is most dangerous at night. It is much less likely that a driver will see you. He may see your vehicle and

even drive closely to the edge to investigate. If you are on the side of the vehicle facing the roadway, he may hit you before he even notices your presence. Drinking drivers make the problem even more serious. Therefore, have available and use warning lights whenever you are in this position.

These materials are comprised of a TV spot and two radio spots which are presented on the following pages along with focus group comments.

DISMOUNTED MOTORIST PSA--60 SECOND TELEVISION

TITLE: *"WHAMO"*

VIDEO	*AUDIO*
(played like an electronic television game program)	*(filtered to sound like a deep, computerized voice)*
The screen is dark except for small, computerized cars whizzing by. Two cars collide. A tiny computerized man exits each car as other cars steer around the accident. The men move around their disabled cars.	*Disabled Motorist. Game One.* *(SFX)** *Accident. Crash. Accident.* *(SFX)* *Danger, danger. Don't leave your car on a busy roadway. Don't stand or stick out on the roadway or near your car.*
A passing cars hits one of the tiny men. He blows apart. The remaining figure scurries onto the shoulder.	*Ouch! Others might not see you. If you can't move your car, get as far away from the roadway as possible.*
The little man nods affirmatively.	*Did you remember your four-way flashers? Good. Some people don't.*
He steps back onto the roadway surface. *He returns quickly to the shoulder.* *He paces up and down along the highway shoulder, this time farther from the roadway edge.*	*Danger. Remember what happened to the other guy.* *Don't just think about your car.* *Think about your life--and watch out for oncoming traffic.*
The figure stops moving.	*Remember!*
He nods. (ZOOM in on him until he fills the picture.) Then he disappears with a popping noise.	*When you're playing with your own life or the lives of others...it isn't just a game.* *Pop!*
The screen goes black.	

SUPER: *A message from the National Highway Traffic Safety Administration.*

**Abbreviation for "sound effects."*

FOCUS GROUP

SUMMARY AND CONCLUSIONS

#20 Whamo (TV: 60 seconds)

This spot was well received by all members of the test audience. The message appeared to have been received clearly and the reviewers liked the presentation.

The reviewers though that the video concept is topical and would be effective in reaching audiences of all ages.

DISMOUNTED MOTORIST PSA--30 second radio

TITLE: *"SURVIVING CAR BREAKDOWNS"*

SFX: *(Background sounds of passing vehicles on a highway.)*

ANNOUNCER: *"Car broken down? The big problem is mental, not mechanical. You can't afford to focus on your mechanical problem. Staying alive is your No. 1 problem!"*

"When it happens, steer as far off the roadway as possible. Turn on the fourway flashers. Don't stand or stick out in the roadway. Avoid walking in or crossing the roadway."

"And watch out for oncoming cars...they can't see you that well and they certainly don't expect you!!"

"Brought to you as a public service by this station and the National Highway Traffic Safety Administration."

Dismounted Motorist PSA--30 second radio

FOCUS GROUP

SUMMARY AND CONCLUSIONS

#20A Surviving Car Breakdowns (Radio: 30 seconds)

The test audience, in general, had problems with this radio spot. They found the message confusing and lacking in information. They were unsure as to whether a driver should stay in the car or leave the car in a breakdown situation. They would have liked directions on how to get out of the car safely on a busy highway. They wanted information on what to do if it wasn't possible to pull off the roadway and the instructions regarding the use of flashers were not clear to them. They felt the direction to watch out for "oncoming" cars to be in error as it appeared to them that the main danger was from the rear.

All members of the test audience felt that a radio spot would be the most appropriate medium for a message directed towards motorists. However, in general, they did not feel that this presentation met the need for information on what to do in the event of a breakdown on the highway.

DISMOUNTED MOTORIST PSA--60 SECOND RADIO

TITLE:	*"WHERE'S DADDY?"*
SFX:	*(We hear a door opening and closing, then a bouncing basketball.)*
JIMMY:	*"Hey Mom, we won the game! I got the winning basket, too!"*
SFX:	*(The basketball bounces again. Another door opens and closes.)*
JIMMY:	*"Mom! Where's Daddy?"*
MOTHER:	*"He's not here."*
JIMMY:	*"Oh? Whatsamatter, Mom?"*
MOTHER:	*"Daddy had a car accident."*
JIMMY:	*"But...Daddy's such a good driver."*
MOTHER:	*"It wasn't his fault. His engine conked out and he was trying to push his car off the roadway."*
JIMMY:	*"Oh?"*
MOTHER:	*"Then another car hit him."*
JIMMY:	*"Didn't the other driver see him?"*
MOTHER:	*"I guess not."*
JIMMY:	*"Is he gonna be okay?"*
MOTHER:	*"No, Jimmy, he isn't."*
JIMMY:	*Then...when is he coming home?"*
ANNOUNCER:	*"Thousands of dismounted motorists have been killed due to carelessness and forgetting to keep an eye on passing traffic. If your car develops a problem, drive it off the roadway. If you can't drive it, get yourself as far off the roadway as possible...before another motorist does it for you...the hard way."*
	"Brought to you as a public service by this station and the National Highway Traffic Safety Administration."

Dismounted Motorist PSA--60 second radio

FOCUS GROUP

SUMMARY AND CONCLUSIONS

#20B - Where's Daddy (Radio: 60 seconds)

Reactions to this radio spot were mixed. Some reviewers found it acceptable, others were less positive in their comments with regard to the message content. The script states "...If your car develops a problem, drive it off the roadway. If you can't drive it, get yourself as far off the roadway as possible...." Some reviewers interpreted this to mean "get your car as far off the roadway as possible, even if it means pushing it. However, they did see this as a contradiction as, obviously in the story line, that is how the driver got hit.

Other reviewers had no problems in this area and clearly received the message that if you can't drive the car off the road, leave it and get yourself off the road.

Some of the test audience felt the message was incomplete. They felt further information was needed such as recommending that flashers be turned on, and the police be notified.

Most of the reviewers, however, liked the approach and thought it would be effective. All reviewers agreed that a radio spot would be the best medium to reach motorists.

Chapter III.

PHASE II PRODUCED MESSAGES

Chapter of this report detailed the development of several prototype pedestrian safety messages. The next phase of this project involved the selection of some of these materials for actual production. This Chapter will describe those messages which were actually produced.

The first messages selected for production were the adult and child messages dealing with the Intersection Dash accident type. These were produced by Saxe Mitchell, Inc., under subcontract to this effort. They were shot in Miami, Florida, during April 1983. The adult spot was essentially the same as shown in Chapter II, Section E; however, it was done as a 30 second spot instead of the 60 second spot originally scripted. The child spot, also shown in Section E, was shot as a 60 second spot with animation as originally scripted. An introduction to each of these spots and the final scripts are shown on the following pages. The intersection spots were selected for production largely because Intersection Dash was the largest single accident type which had not been addressed by previous NHTSA public education development efforts.

The third spot selected for production was the child "Big Wheel" spot described in Section A above. This spot originally called for a lion to appear at the end of the child's driveway. However, use of a real lion proved to be impractical since the nearest "working" lion was in California and the spot was produced in Nassau County, NY. Therefore, the lion was replaced by a wall of fire appearing at the end of the driveway. The spot was shot during July 1983. An introduction and final script are shown after the intersection materials on the following pages. This spot was originally intended as a public service spot to be shown by television stations. However, it is also suitable for in-classroom use as part of the original Willy Whistle film. The original Willy Whistle film (see Blomberg, et al., in process) was transferred to video tape, followed by an introduction to the Big Wheel problem, followed by the spot. This introduction is delivered by Haywood Nelson, Jr., who appeared in the original Willy Whistle film and subsequently starred in a TV series which ran for four years. Mr. Nelson is a recognized personality and, because of his participation in the original Willy film, was felt to be a valid pedestrian safety spokesperson. This tape has a running time of approximately 8 minutes. The Big Wheel spot was selected for production because these accidents are a major problem, children's public service has been shown to be effective and the behavioral advice appears to be novel and interesting.

The fourth item selected for production was a new in-classroom film designed to follow the original Willy film for children from about age 7 to 14. This new film was shot in Nassau County, NY, during July 1983. The messages covered in this film were drawn from Sections C, D, E, F, and J above. This new film was selected for production because the original Willy Whistle film demonstrated that in-classroom public education can get significant exposure to children and can reduce accidents among children (see Blomberg, et al., in process). However, the original film dealt only with the midblock crossings of younger children. The accident reduction achieved was centered on the younger ages and the accident types reduced were Dart-Out First,

Dart-Out Second and Midblock Dash. While the midblock darts and dashes are the primary accident problem for younger children, other accident types begin to predominate by about ages 7 or 8. In Los Angeles (1973-75), the most frequent accident for 10 to 14 year olds was Vehicle Turn/Merge (14%) followed by Intersection Dash (13%). The new film was designed to address these other accident types and extend the Willy program into more complex crossing situations. The new film was also designed to be longer than the original Willy film since teachers felt that they would be more likely to schedule a film and get the projector for more than a 6 minute presentation. Together, the original Willy film and the new film address virtually all major child pedestrian accident types. An introduction and script outline for this film appear at the end of this Chapter.

Title: Adult Intersection Crossings

Medium: Television Spot

Length: 30 seconds

Target: Intersection Dash accidents involving young, middle aged and older adults in an urban environment.

Message: Green lights, walk signals and crosswalks do not necessarily mean that it is safe to start crossing. Rather, they tell you to stop at the curb and look left-right-left to be sure that it is safe. Always stop at the curb and look before entering the roadway even when the light is green or the signal says Walk.

:30 Adult Intersection

Scene	Copy
Tight light goes green	STOP! Don't Move!
QUICK CLOSE-UPS	Any of you! Just because the light's green ...
Black girl crossing	doesn't mean it's safe to cross.
Light	Green lights ...
Walk sign	"Walk" signals and
Crosswalk with peds	Crosswalks don't mean it's safe to start crossing.
Man from the rear walking	What they really tell you is ... before you step into the roadway, stop and ...
Man looks L-R-L	look LEFT, RIGHT and LEFT again before you start to cross.
Light	Let the lights ...
Walk sign	signals, or markings
Crosswalk	tell you to stop and
Final girl crossing sequence	look LEFT, RIGHT and LEFT again
L-R-L on cue	and keep on looking in all directions till you're safe on the other side.

Title: Child Intersection Crossings (Willy Whistle)

Medium: Television Spot

Length: 60 seconds

Target: Intersection Dash accidents involving children and young teenagers.

Message: Green lights, walk signals and crosswalks do not necessarily mean that it is safe to start crossing. Rather, they tell you to stop at the curb and look left-right-left to be sure that it is safe. Never run into the street and never enter the street without stopping at the curb and looking even when the light is green or the signal says Walk.

:60 Child Intersection

Scene	Copy
Blonde boy running toward camera	Hi--I'm Willy Whistle with an important message (about crossing streets).
Boy freezes	STOP right there.
Light	Green lights ...
Walk sign	"Walk" signals and
Crosswalk/rear shot of Blonde boy	crosswalks don't always mean it's safe to start crossing. They're just telling you to stop (right there) to see if it really is safe.
Light-look sequence--Black boy from rear	A green light means you start to look LEFT-RIGHT-LEFT before you cross.
Walk/look sequence--the girl from rear	A "Walk" signal means you start to look LEFT-RIGHT-LEFT before you cross.
Two kids cross toward each other	A crosswalk tells you to stop to look LEFT-RIGHT-LEFT before you cross.
Close cuts	What green or"Walk" really says is stop to look before stepping into the roadway.
Red light turning green	Waiting for a light to turn green
Don't walk turns to walk	or a signal to say "Walk" is not enough.
Girl in red saddle shoes	Look LEFT-RIGHT-LEFT before going into the roadway.
Blonde boy again	Let the light, signal or crosswalk tell you to look LEFT-RIGHT-LEFT and keep on looking in all directions (till you're safe on the other side!).

Title: Big Wheel

Medium: Television spot

Length: 60 seconds

Target: Big Wheel (i.e., riding toys) accidents involving young children who ride into the street.

Message: When you are on a Big Wheel, you move quickly and low to the ground. Drivers can't see you and you can't see oncoming vehicles. Therefore, never ride into the street. Get your Mom or Dad to put a line near the end of your driveway. Never cross the line and ride into the street--no matter what.

:60 Big Wheel--Fire

Scene	Copy
EXTERIOR DRIVEWAY. DAY. FULL SHOT: A real dangerous-looking fire rages across the end of a driveway. The camera is at the level of a kid riding a Big Wheel.)	(Sound: SYNC, the fire rages and crackles) NARRATOR: You won't really find a blazing fire at the end of your driveway.
EXTERIOR MEDIUM: Looking at the driveway as he rides his Big Wheel. SPLIT SCREEN TO:	But you might find something that could hurt you even more.
Car going by as kid rides toward street.	Cars ... going by much too fast to stop.
FROM KID'S POV: See side of cars.	Those cars are really big and their drivers can't see you if you come out of your driveway all of a sudden.
MCU: ZOOM BACK FROM CARS OVER BIG WHEEL. HANDLEBARS-LAP DISSOLVE TO FIRE.	You look pretty small to a person who's driving a car. So stay out of the fire.
Kid sitting on his Big Wheel watching his mother and sister paint a line across the driveway.	Ask your Mom or Dad to put a line across your driveway to show where it starts ...
Kid on a Big Wheel drives up to a completed line and turns away.	... then never cross the line, no matter what!
FULL SHOT: The fire, from the kid's POV. As he rides toward it, it grows.	Make believe there's a very big, hot fire on the other side of the line.
He rides away and the fire dies down.	It won't get you if you stay on your side.
Kid approaching line and comes to a stop as cars go by.	But, even if you cross the line only once, there may be a car coming that ...
Kid watches cars go by.	... could hurt you very badly.
Kid, with Big Wheel, watching as his father and mother put a line of wide tape across the driveway.	So get your Mom or Dad to mark a line across your driveway ...
ECU OF FIRE--Cut to over the shoulder of kid looking at the fire on the other side of the line.	... and think about a fire on the other side. Then don't cross the line ... ever!

Title: And Keep on Looking

Medium: In-classroom film

Length: 15 minutes

Target: Accidents involving children between the ages of 7 and 14. Specific accident types addressed include Intersection Dash, Vehicle Turn/Merge, Multiple Threat, Pedestrian Not in Roadway, School Bus, Backing and Dart-Outs involving visual screens.

Message: An original Willy Whistle spot showing stop and look left-right-left is presented followed by a second Willy Whistle spot showing stop and look at intersections. Children are told that now they are older they walk in more complex traffic situations. Several more complex traffic situations are depicted and children are shown how to deal with these situations.

And Keep on Looking

Outline

In-classroom Film

1. Film opens with Haywood Nelson, Jr. ("Woody") standing by VCR in his den. He turns to acknowledge camera and introduces himself as an actor who once helped make some pedestrian safety films.

2. Rather than explain the films, he starts the the VCR and shows original Willy 60 second spot. Dissolve through TV screen for better quality.

3. Woody says that advice was fine when you were little and didn't go many places. As you get older, you go to busier locations such as intersections.

4. He emphasizes this point by showing new Willy 60 second spot on VCR.

5. Woody tells us that even this advice is not enough in a complex traffic environment. There are other things to look out for, such as ...

6. Willy's voice off camera interrupts and says "Let me tell them." Woody says "No, they're getting too old for you." They argue in a friendly manner until ...

7. Peter Newman walks in and says "O.K., what if I tell them."

8. Woody introduces Newman as a man of 1000 voices. He starts to tell the audience the advice and then stops and sets up a series of flashbacks during which Newman instructs his "nephew" (12 year old called "Kenny").

9. The flashbacks all take place in real traffic situations. They are done as a series of vignettes that explain the various threats and behavioral remedies. Newman uses various voices and comedic routines to enliven the vignettes but always delivers the advice in a relatively serious tone. The specific situations are listed below:

   Intersections

   - The green or walk, etc., means look. This reiterates the 60 second spot: Stop, L-R-L.

   - Turning vehicle threats on green--look at the driver not just the car; remember to look behind for right-turning vehicles; never assume you are seen.

   - RTOR threats--remember that cars can turn right on red; look at the driver; look for directional signal but don't trust it; when in doubt, let the car go first.

   - Meaning of pedestrian signals--flashing DON'T WALK means keep going but don't start; flashing WALK means cars can turn across your path.

Visual Screens--Advice is always the same--stop at the curb (or roadway edge); look; go out to the edge of the screen and stop again; look L-R-L around the screen. Screens covered include:

- o School bus--getting off it and crossing in front or waiting until it leaves.
- o Parked cars.
- o A parked van or truck.
- o Multiple threat situations--at crosswalk where car in inner lane stops to let pedestrian cross; at other location where cars are stopped to yield to a pedestrian.
- o Natural obstacle, e.g., a hedge.

Parking Lot

- o Backing message--watch for cars which can back out; look for cues (back up lights, exhaust) that car may be backing.
- o Short-time exposure--basically several visual screens in a parking lot or off-road situation.

10. Film ends back in Woody's den. Kenny delivers a summary of what he has learned.

REFERENCES

Blomberg, R.D. and Preusser, D.F. Identification and Test of Pedestrian Safety Messages for Public Education Programs. Dunlap and Associates, Inc. Final Report to the National Highway Traffic Safety Administration, March 1975. Available NTIS, DOT HS-801 457.

Blomberg, R.D., Preusser, D.F., Hale, A. and Leaf, W.A. Experimental Field Test of Proposed Pedestrian Safety Messages (3 volumes). Final Report to the National Highway Traffic Safety Administration, in process. Dunlap and Associates East, Inc., Norwalk, CT. Contract No. DOT-HS-4-00952.

Blomberg, R.D., Preusser, D.F., Hale, A. and Ulmer, R.G. A Comparison of Alcohol Involvement in Pedestrians and Pedestrian Casualties. Final Report to the National Highway Traffic Safety Administration, October 1979. Dunlap and Associates, Inc. Contract No. DOT-HS-4-00946.

Knoblauch, R.L. Causative Factors and Countermeasures for Rural and Suburban Pedestrian Accidents: Accident Data Collection and Analysis. Springfield, VA: NTIS, U.S. Department of Transportation, Report No. DOT-HS-802-266, 1977.

Knoblauch, R.L. Urban Pedestrian Accident Countermeasures Experimental Evaluation. Silver Springs, MD: Operations Research, Inc., 1975. U.S. Department of Transportation, Contract No. DOT-HS-190-480.

Snyder, M.B. and Knoblauch, R. Pedestrian Safety: The Identification of Precipitating Factors and Possible Countermeasures. Vols. I & II. Contract No. DOT-FH-11-7312, January 1971. PB 197 749.