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**EVALUATION OF THE FRESNO COUNTY
JUVENILE TRAFFIC COURT**

**by
Armon Deurnier
1985**

**A DISSERTATION
In Partial Fulfillment
of the Requirements for the Degree
DOCTOR OF PHILOSOPHY**

Department of Teacher Education

ABSTRACT

EVALUATION OF THE FRESNO COUNTY JUVENILE TRAFFIC COURT

By

Armon Deurmier

PURPOSE OF THE STUDY

The purpose was to measure driver related behavior of each of the fourteen driver improvement programs of the Fresno Juvenile Traffic Court at Fresno, California.

PROCEDURE

The Mann Inventory survey was administered to juvenile traffic offenders on a pre- and post-experimental basis over a nine month period. Responses were scored utilizing the aggressive and constricted driver behavior category keys. A correlated "t" test was used to calculate differences in driving behavior at the .05 level of significance.

THE MAJOR FINDINGS

The results of the statistical analysis are as follows:

1. The Driver Improvement Educational Program (DIEP) indicated a significant reduction on the aggressive behavior scale.
2. The DIEP scores showed a significant increase on the constricted driver behavior scale.

3. Two instructional program scores showed a significant reduction in aggressive driver behavior - DEK¹ and DWI. DEK, DWI, POD and TAP scores indicated a greater constricted driver behavior.

The results of the statistical analysis of the pre-court appearance group DIEP are as follows:

1. The aggressive mean and standard deviation scores between the pre-and post-treatment evaluation indicated a significant reduction in aggressive driver behavior.

2. Scores from three instructional programs indicated a statistical difference in constricted driver behavior. AER and TAP scores showed a significant increase, while the BIC results indicated a significant reduction.

3. Five instruction programs had lower mean scores for the post-treatment evaluations, indicating a reduction in aggressive driver behavior - AER, MBL, RON, TAP and TEC.

The test results of the post-court appearance group DIEP are as follows:

1. The DIEP lower mean scores between the pre- and post-survey evaluations for the after treatment group indicated a reduced aggressive driving behavior at the completion of the treatment program.

2. The scores showed a significant increase in constricted driver behavior.

¹ Reference key for instructional program titles.

Driver Improvement Educational Program	DIEP
Driver Education - The Key	DEK
Driving While Under the Influence	DWI
Price of Death	POD
Traffic Accident Prevention Seminar	TAP
Bicycle Basic Law and Defensive Riding	BIC
Motorcycle Basic Law	MBL
Parental Defensive Driving Review	RON
Test-Evaluate-Counsel	TEC
Crisis Survival	CPR

3. Four instructional program scores revealed a significant reduction on the aggressive driver behavior mean - CRP, DEK, TAP and TEC.

4. Seven instructional programs showed a significant increase on the constricted driver scale - AER, DEK, DWI, POD, RON, TAP and TEC.

CONCLUSION

The Fresno County Juvenile Traffic Courts DIEP was effective in influencing a juvenile traffic offender's aggressive and/or constricted driving behavior during the instructional period.

This research is dedicated to the memory of my wife Dona, and son Kenny.

ACKNOWLEDGEMENTS

This researcher wishes to express his gratitude and appreciation to each member of his committee, and a very special thank you to Dr. Donald Smith, my committee chairperson, for his personal interest and encouragement in the development and completion of this study.

I am deeply indebted to Judge Philip M. Jenkins and members of his staff for the invaluable assistance in obtaining the data so vital to this research.

Sincere appreciation is also extended to all of those who have counseled me toward completion of this work.

Finally, I would be greatly remiss if I did not acknowledge with loving appreciation the invaluable contribution made to this study by my late wife, Dona and late son, Kenny, and sons, Jerry and Gary and daughter, Carleen through their unceasing patience and special encouragement during the time of my graduate work. The completion of this research has provided an inspiring experience which I shall never forget.

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CHAPTER 1

THE PROBLEM

Need

The ever increasing complexity of the traffic accident problem in the United States demands that traffic safety activities be continually improved. Traffic accidents in this country continue to account for approximately 50,000 deaths and about two million disabling injuries each year. More than 28 million drivers are involved in almost 17 million traffic accidents annually. The number of vehicles currently on the streets and highways totals over 142 million, nearly 60 million more than 10 years ago. During this same period of time, the number of drivers has increased to 134 million, about 36 million more than 10 years ago.¹ An analysis of these statistics leads clearly to the firm belief that constructive steps must be taken to improve the capability of drivers to operate their motor vehicles safely and with consideration for others at all times.²

A close, objective examination of individual and social needs points out the need for driver improvement education programs (providing learning experiences which favorably influence knowledge, attitudes and practices relating to individual, family, and community traffic safety)

¹Accidents Facts, 1977. National Safety Council, Chicago.

²Driver Improvement Instructional Programs. National Conference, Michigan State University, East Lansing, Michigan, 1965.

and their important place in the educational community. However, simply including driver improvement educational programs in the community education curriculum (public and private schools, adult schools, service organizations and courts) is not the complete answer. Because of the importance of the objectives, each driver improvement educational program must include a plan for behavioral modification and must strive for more meaningful content, more effective means of developing concepts, values, and behaviors, more discriminating evaluations, clearer articulation of the nature and potential of the program to the public than does "cash register type of justice" (the assessment of a fine only for traffic violations).³ Through constant efforts for a better program, driver improvement education can make a significant contribution to the needs of the individual and to society and yet attain a solid position in the total community educational program.⁴

The success, expansion and ultimate total acceptance of driver improvement educational programs by traffic court judges rest with the instructional program's ability to successfully modify the violator's driving behavior. Therefore, the program must impart knowledge, a challenge and a guide for future driving habits. Failure to upgrade, strengthen and develop an evaluation system for the driver improvement educational programs can minimize the effectiveness of the total driver

³Philip M. Jenkins, Juvenile Court Traffic Hearing Officer, "Teenagers Get Safety Assignments," Youth World, The Fresno Bee, March 17, 1978.

⁴Richard W. Bishop, "Clarifying and Validating the Curriculum in Driver and Traffic Safety Education." The Caldea Calender, XV, March, 1968.

improvement educational program utilized by the nation's traffic courts.⁵

In the broadest sense, much of our scientific achievement has had a bearing on safety and/or health development. When this knowledge is transmitted to the oncoming generations through the medium of formal instruction, virtually all of our instructional efforts, no matter what setting, must be viewed as having a bearing on growth, development, and preservation of our society. Our education in the mechanism and purposes of living, in survival and development, in protection, and the means of utilizing the best resources, occupies much of the individual's formal instructional time. Driver improvement education thus conceived becomes a major function of society.⁶

Thus, we must direct our attention to traffic safety education development as preparation for meeting future transportation system demands. Oberteuffer and Beyur state that the ultimate goal of driver improvement education, whether it be in the formal school setting or for the general public, is to liberate our potential strengths, energies and virtues so that our safe participation in the transportation system becomes deeply satisfying and constructive.⁷

Driver improvement education must relate to the quality of life in ways which the "cash register type of justice" does not. It is extremely important that we direct our efforts toward the assimilation

⁵John S. Urlaub, "A Look at the Future," The Caldea Calender, VIII, October, 1965, p. 5.

⁶Debert Oberteuffer, Personal Hygiene for College Students, New York: Bureau of Publications, Teachers College, Columbia University, 1930.

⁷Ibid, p. 6.

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and use of knowledge acquired from driver improvement education programs to establish improved driving behaviors. This knowledge can create patterns of safe driving behavior which would enable one to survive for a longer period of time in the driving environment.

The terms driver improvement education and driver improvement instruction are often used as synonyms in the educational community. Therefore, it is important that we differentiate the meanings of the terms; driver improvement instruction is the process used to teach individuals, while driver improvement education is the result of the instructional program used.⁸

Driver improvement instruction must be relevant to the needs of the individual. As we realize the dramatic changes in the personal and social needs of the individual, we must also prepare for change in educational practices. The successful outcomes of driver improvement education then become the result of a carefully integrated driver improvement instructional program. Educational outcomes have commonly been classified into areas of knowledge, attitudes and practice (habit or skills). These outcomes should be examined to determine their relative importance in the process of achieving the goals of driver and traffic safety education and intelligent self-direction of one's driving behavior. Since the goal of driver improvement education is expressed in terms of behavior, and since behavior in its broadest sense (including habits of thinking as well as action) is influenced by attitudes and knowledge, it follows that the primary concern of driver improvement education is to influence behavior. Selecting the most

⁸Keogh J. Rash, Health and Safety Education Curriculum,
Bloomington: Indiana University, 1970.

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effective procedure is essential, in light of the accepted criteria of need, interest, comprehension, ability and dependency, with due consideration for community mores. Prior to the fulfillment of the objectives of driver improvement instruction, a great deal of consideration must be given to the instructional program as it relates to attitudes and behavioral change.

Purpose of the Study

Attitudes have been called the "ruling system" of our behavior. Our attitudes help shape the way we deal with various situations which arise in our world.⁹

Instructors and administrators in driver improvement education must be aware of the needs of their students, and the students must be receptive to the driver improvement instruction. In order for one to understand the dimensions of the problem, one must understand the components of the individual's behavioral responses, or restated, be able to evaluate behaviors which are the indicators of action.

Although studies of behavior change have not been a major proving ground for the learning theories that have flourished in recent American psychology, each of the major variations of learning theory has been applied to the study of behavior change. Skinner and his followers, who dissolved the dispositional concept of attitude into overt verbal behavior, contended that "attitude change becomes a mother of the sharing of verbal behavior under the control of schedules of reinforcement."¹⁰

⁹William H. Harris, "Health in the U.S. Today." Selected Readings in Health, London: MacMillan Company, Collier-MacMillan Limited, 1970.

¹⁰Burchus L. Skinner. Verbal Behavior. New York: Appleton, 1957.

To understand the individual and the concept "attitude," one must recognize that attitudes lend order to the infinite number of choices people have, which facilitates making rational decisions. Reliable predictions about an individual's response to new but similar situations could be possible, if the individual's attitudes were known.

The inadequate measurement of driver improvement education outcomes in the past may be largely attributed to a general lack of well-developed evaluation instruments. While a number of standardized driver improvement knowledge tests have been produced, little research has been done in the area of driver behavior; only a few driver improvement behavior scales have been developed in the past thirty years.¹¹

This important link between driver attitudes, driver knowledge and driving practices continues to need study, research, and the structuring of measuring instruments. All are necessary to bring objectivity to bear upon the identification and evaluations of good driving behavior.

The goal of formal driver improvement education is to produce well-adjusted drivers with practices, attitudes and knowledge that lead to the "intelligent, self-direction of driver behavior."¹² To meet this goal, the driver educator must evaluate his or her own efforts. This evaluation must be undertaken to determine the present level of instructional achievements, and to provide data upon which to base improvements of the actual teaching process.

¹¹Harold C. Veenber. "Results of Measuring the Knowledge, Attitudes and Practices of Young Adults," Synthesis of Research in Selected Areas of Instruction, New York, School Education Study, 1973.

¹²Keogh J. Rash. The Health Education Curriculum. Bloomington: Indiana University, 1970.

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The major portion of this study dealt with the evaluation of driver-related behaviors as they relate to the intelligent self-direction of safe driving.

Statement of the Problem

This study sought to determine driver related behavioral change of juvenile traffic law violators after completion of one of the on going driver improvement instructional programs of the Fresno County Juvenile Traffic Court at Fresno, California. Resulting behavior modification was measured through the use of the Mann Inventory survey instrument developed at Michigan State University by Dr. William A. Mann.¹³ The Fresno County Juvenile Courts Driver Improvement Educational Program consisted of the fourteen driver instructional programs listed in Table 1.

A second purpose of this study was to determine any driver-related behavioral change after completing one of the fourteen on going driver improvement instructional programs, thereby determining the effectiveness of each specific instructional treatment program.

¹³William A. Mann, "Personal Attitude Survey," Highway Traffic Safety Center, Michigan State University, 1958.

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Table 1

Driver Improvement Instructional Treatment

Program Titles and Their Abbreviations

Program Title	Abbreviation
Driver Improvement Educational Treatment Program	DIEP
1. Accident Emergency Response	AER
2. Bicycle Basic Law and Defensive Riding	BIC
3. Crisis Survival	CPR
4. Driver Education - - The Key	DEK
5. Driving Under Hazardous Conditions	DUH
6. Driving While Under the Influence	DWI
7. Motorcycle Basic Law	MBL
8. Motorcycle Safety Dynamics	MSD
9. Price of Death	POD
10. Parental Defensive Driving Review	RON
11. Sgt. Sal Mosqueda Licensing Workshop	SMF
12. Traffic Accident Prevention	TAP
13. Testing, Evaluation and Counseling	TEC
14. Traffic Safety Dynamics	TSD

Limitations

This investigation was confined to the response of those individuals completing one of the on going driver improvement instructional treatment programs listed in Table 1 during the three-month period (See Appendix A).

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The relative merit of each of the fourteen on going driver improvement instructional treatment programs was gauged by survey evaluation scores made on The Mann Inventory. The conclusions were, therefore, based on the inventory's scales for measuring an individual's aggressive and constricted driving behavior. The Mann Inventory's aggressive behavioral scale measures the individual's belligerent reactions to traffic situations, while the constrictive behavioral scale measures the individual's constrained reactions to driving situations.¹⁴

The Fresno Juvenile Traffic Court believes that the citation should be a learning experience helpful to the minor driver in preventing further driving infractions and possible injury accidents. This new concept in juvenile traffic safety took its first steps forward when the judges of Fresno County Superior Court reached out into the community for volunteers to assist them in developing a unique series of positive reinforcing alternative sentencing programs. The response was quick, and a new community organization dedicated to improving juvenile traffic safety was born in February 1970. "SAFE-D" (Students Award For Excellence In Driving) provides professional guidance and assistance in the development of driver improvement instructional programs for the Fresno County Juvenile Traffic Court. SAFE-D projects the philosophy that young drivers can be encouraged to want to respond to safe driving practices.

¹⁴Francis Carl Kenel, "The Effectiveness of the Mann Inventory in Classifying Young Drivers into Behavioral Categories and its Relationship to Subsequent Driver Performance" (unpublished Doctoral Dissertation, Michigan State University, East Lansing, 1967).

Basic Assumptions of the Research

1. The Mann Inventory on Aggressive and/or Constrictive Driver Behaviors is a valid and reliable instrument for determining aggressive and/or constrictive driving behaviors; attitudes as determined by responses to selected questions on the inventory.
2. Driver Improvement instructors of the Fresno County Juvenile Traffic Court would cooperate with the study.
3. Students would complete the instrument honestly and to the best of their ability.

Definitions

1. Aggressive: Behavior characterized by forceful outgoing action or vigorous efforts to assert oneself over others.¹⁵
2. Attitude: A manner of showing one's feelings, thoughts, or a guide for one's behavior.¹⁶
3. Attitude change: A fluctuation, positive or negative, in the expressed feelings of an individual toward an attitude-object.¹⁷
4. Attitude-object: The object of an attitude may be anything that exists for the individual.¹⁸

¹⁵Ibid.

¹⁶J. Arthur Rude, "Driver Opinion Poll," California Traffic Safety Foundation, San Francisco, 1965.

¹⁷Wilfore C. Sutton, and Lloyd E. Webster. Health for Effective Living, 5th ed., McGraw-Hill Book Company, New York, 1970.

¹⁸Ibid.

5. Concept: The summarizing of experiences; inventions of the mind to explain or group certain categories of perception. . . mental configurations invented to impose order on an endlessly variable environment and to make adequate responses to events a possibility.¹⁹
6. Constricted: Behavior characterized by withdrawal from contact with other persons.²⁰
7. Driving attitude: The resultant of one's experiences and conceptualizations which guide him or her toward positive or negative sets toward practices of safe or unsafe transportation behavior.²¹
8. Driver Improvement Education: The result of (providing) learning experiences which favorably influence knowledge, attitudes and practices relating to individual, family and community traffic safety.²²
9. Driver Improvement Instruction Course: Instruction which has as its purpose the development of those provisions of the vehicle code and other information relating to operation of

¹⁹Herbert A. Smith, "The Teaching of a Concept," The Science Teacher, March, 1966 (mimeographed).

²⁰Francis Carl Kenel, "The Effectiveness of the Mann Inventory in Classifying Young Drivers into Behavioral Categories and its Relationship to Subsequent Driver Performance" (unpublished Doctoral Dissertation, Michigan State University, East Lansing, 1967).

²¹Frazier Damron, "The Effect of Different Traffic Court School Instructional Approaches on Driver Attitude and Behavior," Traffic Digest and Review, June, 1971.

²²Philip M. Jenkins, Juvenile Traffic Court Hearing Officer, "Teenagers Get Safety Assignments," Youth World, The Fresno Bee, March 1, 1978.

motor vehicles and bicycles safely, and acceptance of personal responsibilities which are true appreciation of the causes, seriousness and consequences of traffic accidents.²³

10. Driver Improvement Treatment Program: Formal courses created to improve the behavioral performance of licensed drivers through education.²⁴
11. Driver Knowledge: The factual information involved in the scope of the driver improvement instruction program.²⁵
12. Driver Practice: The behavior or action a person usually takes with respect to driving or traffic safety.²⁶
13. Positive Attitude: That expression of feeling toward an attitude-object which is considered to be the best possible affect (feeling) toward that object as determined by experts in the field within which that attitude-object lies.²⁷

Research Hypothesis

The research hypotheses all postulated that there would be a significant difference between the mean pre-survey and post-survey scores on the two scales of the Mann Inventory for the fourteen driver improvement instructional treatment programs. These scales relate to aggressive and constrictive driving behaviors. The null hypothesis

²³Ibid.

²⁴National Conference Report, Driver Improvement Instructional Programs, December, 1965.

²⁵Ibid.

²⁶Philip M. Jenkins, Juvenile Traffic Court Hearing Officer, "Teenagers Get Safety Assignments," Youth World, The Fresno Bee, March 17, 1978.

²⁷Ibid.

therefore postulated there would be no behavior change averaging across all the treatment conditions while the fourteen separate null sub-hypotheses related to a "no-treatment effect" for each of the fourteen programs.

Hypothesis

$$H_0: \text{DIEP}, \bar{x}_{t1} = \text{DIEP}, \bar{x}_{t2}$$

$$H_1: \text{DIEP}, \bar{x}_{t1} \neq \text{DIEP}, \bar{x}_{t2}$$

Sub-Hypotheses

$$1. \quad H_0: \text{AER}, \bar{x}_{t1} = \text{AER}, \bar{x}_{t2}$$

$$H_1: \text{AER}, \bar{x}_{t1} \neq \text{AER}, \bar{x}_{t2}$$

$$2. \quad H_0: \text{BIC}, \bar{x}_{t1} = \text{BIC}, \bar{x}_{t2}$$

$$H_1: \text{BIC}, \bar{x}_{t1} \neq \text{BIC}, \bar{x}_{t2}$$

$$3. \quad H_0: \text{CPR}, \bar{x}_{t1} = \text{CPR}, \bar{x}_{t2}$$

$$H_1: \text{CPR}, \bar{x}_{t1} \neq \text{CPR}, \bar{x}_{t2}$$

$$4. \quad H_0: \text{DEK}, \bar{x}_{t1} = \text{DEK}, \bar{x}_{t2}$$

$$H_1: \text{DEK}, \bar{x}_{t1} \neq \text{DEK}, \bar{x}_{t2}$$

$$5. \quad H_0: \text{DUH}, \bar{x}_{t1} = \text{DUH}, \bar{x}_{t2}$$

$$H_1: \text{DUH}, \bar{x}_{t1} \neq \text{DUH}, \bar{x}_{t2}$$

$$6. \quad H_0: \text{DWI}, \bar{x}_{t1} = \text{DWI}, \bar{x}_{t2}$$

$$H_1: \text{DWI}, \bar{x}_{t1} \neq \text{DWI}, \bar{x}_{t2}$$

$$7. \quad H_0: \text{MBL}, \bar{x}_{t1} = \text{MBL}, \bar{x}_{t2}$$

$$H_1: \text{MBL}, \bar{x}_{t1} \neq \text{MBL}, \bar{x}_{t2}$$

$$8. \quad H_0: \text{MSD}, \bar{x}_{t1} = \text{MSD}, \bar{x}_{t2}$$

$$H_1: \text{MSD}, \bar{x}_{t1} \neq \text{MSD}, \bar{x}_{t2}$$

$$9. \quad H_0: \text{POD}, \bar{x}_{t1} = \text{POD}, \bar{x}_{t2}$$

$$H_1: \text{POD}, \bar{x}_{t1} \neq \text{POD}, \bar{x}_{t2}$$

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11. $H_0: \text{SMF}, \bar{x}_{t_1} = \text{SMF}, \bar{x}_{t_2}$
 $H_1: \text{SMF}, \bar{x}_{t_1} \neq \text{SMF}, \bar{x}_{t_2}$
12. $H_0: \text{TAP}, \bar{x}_{t_1} = \text{TAP}, \bar{x}_{t_2}$
 $H_1: \text{TAP}, \bar{x}_{t_1} \neq \text{TAP}, \bar{x}_{t_2}$
13. $H_0: \text{TEC}, \bar{x}_{t_1} = \text{TEC}, \bar{x}_{t_2}$
 $H_1: \text{TEC}, \bar{x}_{t_1} \neq \text{TEC}, \bar{x}_{t_2}$
14. $H_0: \text{TSD}, \bar{x}_{t_1} = \text{TSD}, \bar{x}_{t_2}$
 $H_1: \text{TSD}, \bar{x}_{t_1} \neq \text{TSD}, \bar{x}_{t_2}$

The first term (DIEP, AER, etc.) used in the description of the observed mean refers to the treatment conditions (see Table 1, page 8). The first subscript refers to the time of measurement $\bar{x}_{t_1}$, the pre-treatment measure, and the second subscript $\bar{x}_{t_2}$, the post-treatment measure.

Possible Applications

The increasing need for improved human performance within the highway transportation system should encourage traffic court judges, boards of education, public safety administrators, legislators, and community leaders to explore newer, innovative approaches to improve driver performance. The nation's traffic court judges could possibly help achieve this major goal by continuous evaluation of their driver improvement educational program curriculums, and by enlisting the assistance of community volunteers and professional traffic safety leaders in their jurisdictions.

All too often, progress has not been made because of financial barriers, shortage of prepared personnel, lack of understanding of new approaches, improper scheduling, lack of facilities, and lack of research-proven content and teaching approaches. Regardless, such formidable obstacles have not erased the increasing need for providing every motor vehicle law offender with an opportunity to enroll in a driver improvement education program that would enable him or her to perform at a safe level under all traffic and roadway conditions.

Overview of the Dissertation

Chapter 2 contains the examination of two areas of literature: 1) the effectiveness of the traffic courts' driver improvement programs and 2) research design, procedures and measurement instruments used to measure behavioral modification. The research and related information reviewed provided a beginning point for the research questions, design and procedure utilized to develop the study. Chapter 3 contains a description of the research methods chosen, a description of the fourteen driver improvement instructional treatments and an explanation of the procedural steps used to determine the effectiveness of the fourteen driver improvement instructional treatment courses. Chapter 4 is devoted to the analysis of data, describing the relationship between the pre- and post-Mann Inventory evaluations of each of the fourteen driver improvement instructional courses; as well as the overall mean scores of the fourteen conditions. Conclusions reached, discussion of the investigation findings, specific recommendations resulting from the analysis and interpretation of the data and the implications for future research studies are presented in Chapter 5.

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CHAPTER 2

REVIEW OF SELECTED LITERATURE

The review of literature covered two areas: (1) effectiveness of traffic courts driver improvement programs, and (2) research design, procedures and measurement instruments used to measure attitudinal modification. The research and related information reviewed provided a beginning point for the research questions, design and procedure utilized to develop the study.

Driver Improvement Programs

The problem of traffic accidents can be viewed sociologically as a significant by-product of modern industrialized society. Presently, traffic accidents constitute over forty percent of all accidental deaths and more than fifteen percent of all disabling injuries.²⁸

"Although the majority of traffic accidents are known to be first occurrences there is increasing evidence that certain drivers are involved in a disproportionate number of accidents. How to screen and control them presents a difficult problem, especially since the probability of every driver having at least one traffic accident in his or her lifetime is very high."²⁹

One of the major instructional approaches used by society to control driver behavior is through the use of traffic courts. However,

²⁸Frazier Damron, "The Effect of Different Traffic Court School Instructional Approaches on Driver Attitude and Behavior," Traffic Digest and Review, June, 1971.

²⁹Ibid.

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the impact of the legal structure, though having several means at its disposal for influencing driver behavior, has yet to be measured systematically.³⁰

Previous research on traffic courts and driver improvement programs has been limited, leaving gaps to be filled. The American Bar Association's Committee on Traffic Courts has conducted several investigations of traffic court programs throughout the country, but these studies have been made primarily to determine whether court programs in operation comply with standards of court process and procedure presumed to be desirable.³¹

The effect various court procedures have upon the future state of violators has yet to be determined. Thus, persons with legal training have generally claimed that those who commit moving violations should be brought into court for judgment instead of being allowed to pay fines.³² However, a counter claim can be raised. Court sanctions may have negative or little impact as a result of violators comparing their penalty to the penalties received by others appearing in court on the same day. If the comparisons of some lead them to perceive they have "gotten a raw deal," and if the comparisons of others lead them to believe they have "beaten the rap," then the effect of enforcement and the likelihood of inculcating the value of safe driving may be diminished

³⁰Frazier Damron, "The Effect of Different Traffic Court Instructional Approaches on Driver Attitude and Behavior," Traffic Digest and Review, June 1971.

³¹Ibid.

³²Ibid.

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as a consequence of the court appearance. These attitudes of traffic court justice being individualized may not develop among those who do not appear in court. The latter group may not be happy about being penalized, but may perceive it as being a uniform penalty.³³

Research has shown that increased traffic court enforcement is related to a decreased rate of traffic accidents.³⁴ This relationship was based upon studies involving community comparisons which utilize the enforcement index, i.e., the ratio between the number of court convictions with penalty for moving vehicle violations and the number of personal injury accidents for a given community for a given year. These studies are subject to the same criticism which can be made of all research using ecological correlations. The relationship is based upon the correlation of rates between areas, but the relationship may not hold for individuals within the area.

Other non-traffic court studies on the effects of enforcement, using the driver as the unit of measurement, have been concerned with police enforcement and the point system. Increased police patrolling has resulted in a decrease in accidents and speed violations.³⁵ A study of driver improvement point systems³⁶ found that drivers receiving

³³J. P. Economos, "Effective Traffic Court Penalties," Traffic Quarterly, October, 1961.

³⁴Frazier Damron, "The Effect of Different Traffic Court Instructional Approaches on Driver Attitude and Behavior," Traffic Digest Review, June, 1971.

³⁵Ibid.

³⁶D. F. Whalen, "The Effects of Driver Improvement School on the Attitudes and Subsequent Driving Records of Selected Indiana Traffic Violators, (Unpublished Doctoral Dissertation, Indiana University, 1962).

warning letters subsequently had lower rates of violations than those not receiving warnings. Drivers placed on probation or receiving a short suspension of their driver licenses after accumulating twelve points, eventually had lower rates of violations than those given a long suspension or who had no action taken against them.

In some sections of the country, alternatives to paying fines have been used to try to improve the violators' driving habits, such as requiring attendance in a driver improvement instructional treatment class. Even though such classes have been available, only a small percentage of violators are assigned to these classes. This may be due to various factors such as time, overall cost, lack of competent personnel, inadequate facilities, laxity of uniform traffic court judges or the reluctance of judges to assign violators against their will.³⁷

There is room for improving the methods of instruction employed in most driver improvement treatment programs. Although the content included in the various driver improvement courses may differ, the majority of the programs use the lecture-film approach.³⁸

Though many of these programs exist, little is known as to their effectiveness in changing attitudes and driving habits of those enrolled. In addition, little is known about what type of programs affect the most positive change in what types of people. The need for

³⁷P. Hill, "Let's Teach Them to Live." Traffic Safety, January, 1963, p. 11.

³⁸Richard Tossel, "Meeting the Education Needs of Traffic Violators in Driver Improvement Schools." Unpublished Doctoral Dissertation, New York University, 1962.

developing and evaluating new methods of instruction which maximize effectiveness while reducing cost is evident.³⁹

Japan's new driver improvement program for selected traffic offenders is operated at Ichihara near Tokyo.⁴⁰ It is located on a 47 acre site near Ichihara City, Chiba Prefecture, an industrial area of the Kanto District.

Ichihara Prison is an "open" institution for first time traffic offenders who were convicted of the violation of the Road Traffic Control Law for causing death and/or injury, but have not been imprisoned previously. These traffic offenders could have been punished by a fine or suspended sentence. The inmates must serve a term, not because they don't pay fines, but because they are sentenced to imprisonment as a punishment for traffic control law violations.

The inmates are a select group. First consideration is given to length of their term (must be over six months), age, mental and physical health, personality and other factors that make it seem probable that the individual will respond favorably to the rehabilitative process. Court judges are not involved in the assignment of inmates. The selection process is conducted by a group of psychologists.

When admitted into the program the inmates are housed for a few days in the reception-orientation quarters, which consist of 60 single

³⁹Frazier Damron, "The Effect of Different Traffic Court School Instructional Approaches on Driver Attitude and Behavior," Traffic Digest and Review, June, 1971.

⁴⁰Billie J. Watson, "Japan's New Prison for Selected Traffic Offenders," Traffic Digest and Review, June, 1971.

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celled rooms, where they are given instructions on the regulations of the institution. After orientation they are assigned to a locked dormitory of associated cells, where they receive special training for adaption to open treatment.

All inmates who have caused a serious traffic accident and have an aptitude for driving are enrolled in a "safety-first" training program. They must also successfully complete a driver and traffic safety education program.

The driver and traffic safety education program includes classroom, simulation, multiple car driving range and on street driving. Group counseling, lectures and educational television are extensively employed, with the assistance of professional driving instructors from the local community. These activities give the inmates an opportunity to better understand their own difficulties.

Las Vegas has added an extra ingredient to that city's traffic court program.⁴¹ The Clark County Juvenile Court in Las Vegas, while fulfilling its punishment and education functions by suspending the licenses of teenagers convicted of moving violations, in many cases referred traffic violators to Traffic Survival School or Scooter School. The length of suspension or restriction was based on the Nevada Driver Demerit System.

⁴¹Howard Hill, "Las Vegas Add Extra Ingredient to City's Traffic Court Program," Traffic Safety, July, 1969.

In some areas throughout the country the "green pennant"⁴² program is used to symbolize accident-free driving for high schools. Inspired by this "green pennant" program, the Las Vegas court decided to sponsor a similar program. Instead of just dealing with traffic accidents, the court decided to include all traffic violations. Thus, the "Teen Ticket Rally" contest was established.

The program revolved around the traffic citations issued to high school students throughout the month of March. The high school students received demerits based upon the violations listed on traffic citations. An educational twist was added, for the demerits were based upon the Nevada Driver Demerit System.

The program was sponsored jointly by the juvenile traffic court, Nevada Safety Council, Las Vegas Traffic Survival School and The Governor's Youth Traffic Safety Association.

The Madison Wisconsin Traffic Safety School conducted a study to determine the effectiveness of the local driver improvement program in reducing the rate of traffic violations by young male adults.⁴³ The school was also interested in evaluating the on-going instructional program.

The study began with observations of several driver improvement classes in order to study the on-going program. It became evident

⁴²General Motors Corporation, "Green Pennant Safe Driving Program," Public Relations Department, Detroit, 1957.

⁴³Frazier Damron, "The Effect of Different Traffic Court School Instructional Approaches on Driver Attitude and Behavior," Traffic Digest and Review, June, 1971.

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during these observations that the students' responses varied from defending or rationalizing their driving attitude toward driving to trying to understand more fully their driving behaviors. Further observations led the investigators to believe that these differences in student attitudes were due, in part, to the different approaches used by the instructors. One of the considerations which came from these observations was the belief that knowledge of good driving behavior was not the primary problem of the chronic traffic law violator; rather it was their failure to effectively utilize this knowledge. It was, therefore, hypothesized that improved driving behavior would result more often from changing the driving attitudes of the students in the driver improvement school than from attempting to improve their knowledge of driving.

The procedures used were both of a positive and negative emphasis. In essence, the positive approach was described as making an attempt to point out consistently what the student had said or done correctly. The negative approach was explained similarly to that of the positive; the instructors were instructed in this case to point out what was wrong with the students' thinking or driving behavior.

While an attempt was made to present both "positive" and "negative" treatments, in reality, a "positive" and combined "positive-negative" treatment resulted. The instructors were able to present a rather pure "positive" approach, but due to the limitations in the education they received and/or the nature of the instructors, the "negative" treatment was simply a little less positive and a little more punitive.

Measurement of Attitudinal Modifications

Two psychological approaches to attitude, which differ in emphasis rather than in essence, are those of Thurstone and Allport. Thurstone defines attitude as "a generalized reaction for or against a specific psychological object."⁴⁴ He is concerned primarily with what may be called reaction to stereotypes. Allport prefers to treat attitude as a "mental and neural state of readiness organized through experience, exerting a directive or organic influence upon the individual's response to all objects and situations with which it is related."⁴⁵ This definition focuses attention upon attitude as a generalized pattern of perception or action, as an integration of various experience.

Other, more traditional definitions of the concept "attitude" have been: "The evaluative dimension of concept,"⁴⁶ or "An enduring learned predisposition to behave in a consistent way toward a given class of objects."⁴⁷

Many psychologists have distinguished between different kinds of attitudes according to the general or specific nature of attitude objects, their intensity, the freedom of expression by the individual

⁴⁴L. L. Thurstone, "Theory of Attitude Measurement," Psychological Review, XXXVI, 1929, pp. 222-41.

⁴⁵Ross Stagner, "Facist Attitudes Determining Conditions," Journal of Social Psychology, VII, 1936, pp. 438-54.

⁴⁶L. R. Anderson, "Prediction of an Attitude from Number, Strength and Evaluation Aspects of Beliefs About the Attitude Object: A Comparison and Summation and Congruity Theories," Journal of Personal and Social Psychology, 2:437-43, 1965.

⁴⁷H. B. English. A Comprehensive Dictionary of Psychological and Psychoanalytic Terms: A Guide to Usage. New York: David McKay Company, 1958.

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and their frequency of occurrence. The object of a general attitude is abstract and conceptual.

Edwards verified the hypothesis that people select and remember from a discussion of those items which fit their attitudes, rejecting data which conflicts with their views. Attitudes are also products of education.⁴⁸

It has been suggested by Sutton that the concept of "attitude" is tridimensional with behavioral, knowledge and feeling components.⁴⁹

Safety attitudes, knowledge and practices are reciprocal and inter-related. Traffic safety attitudes grow out of knowledge and practices. Likewise, to assure that a safety practice is to be most effective and lasting, it must be cemented by well-established attitudes; if safety knowledge is to be most effective, it must be applied in connection with proper safety attitudes. Attitudes, being part of one's psychoneural organization, are the directors of life.⁵⁰

Hovland⁵¹ states that since attitudes have affective, cognitive and behavioral components, affective and behavioral changes may result from exposure to stimuli which alter one's conceptions and perceptions of the

⁴⁸A. L. Edwards, "Political Frames of Reference as a Factor Influencing Recognition," Journal of Abnormal and Social Psychology, 36: 1964, pp. 34-50.

⁴⁹Wilfore C. Sutton. Health For Effective Living. 5th Ed., New York: McGraw-Hill Book Company, 1970.

⁵⁰ L. R. Anderson, "Prediction of an Attitude From Number, Strength and Evaluative Aspects of Beliefs About the Attitude Object: A Comparison of Summation and Congruity Theories," Journal of Personal and Social Psychology, 2:1965, pp. 237-43.

⁵¹C. L. Hovland, "Cognitive, Affective, and Behavioral Components of Attitudes," Attitude Organization and Change, eds. M. J. Rosenberg et al., New Haven: Yale University Press, 1960.

object of the stimuli. It then follows that the affective and behavioral aspects of attitude can be modified as a result of change in the cognitive components.

To further understand the dimensions of attitudes, the following general summary of characteristics are offered:

1. Anderson⁵² states that attitudes are based upon evaluative concepts regarding characteristics of the referential object and give rise to motivated behavior. As has been implied, attitudes are evaluative and lead to actions. It is clear that the arousal of attitude is dependent upon existing drive states which are reflected in the goal orientation of the frustrated or gratified subject.
2. Kretch⁵³ states that attitudes are constructed as varying in quality and intensity on a continuum from positive through neutral to negative, the strength and intensity of attitudes and behavior increase as they move farther away from the neutral position. It is then the neutral position from which we make interpretation of our responses to a problem. Several alternative solutions can be proposed. One may consider this neutral response a representative of no attitude

⁵²L. R. Anderson, "Prediction of an Attitude from Number, Strength and Evaluative Aspects of Beliefs About the Attitude Object: A Comparison of Summation and Congruity Theories," Journal of Personal and Social Psychology, 2, 1965, pp. 437-43.

⁵³David Kretch. Individual in Society. New York: McGraw-Hill Book Company, Incorporated, 1962.

toward the object in question, or Guttman's⁵⁴ approach would suggest this may be ambivalence, the balance point where a positive-negative evaluation conflict occurs. A third interpretation may be the lack of integrated, clearly defined attitudes resulting in an inconsistent response.

3. Sherif⁵⁵ points out that attitudes are learned rather than being innated as a result of constitutional development and maturation. It is indicated that all forms of learning provide a basis for the acquisition of attitudes. Attitudes demonstrate the same properties as other learned reactions. They are subject to change through fatigue, extinction, thinking, etc.
4. Sherif further concluded that attitudes have specific social references. These referents do not have to be concrete objects, but can include such abstracts as world problems or political issues. The complex combination of these referents alter scope and direction of the attitudes one may possess.⁵⁶
5. Attitudes possess varying degrees of interrelatedness to one another. Interrelatedness occurs because of similarity in the evaluative concepts (i.e., such concept of things that one may love or hate). These relationships between an individual's

⁵⁴Louis Guttman, "A Basic for Scaling Qualitative Data," American Sociological Review, 9:139-50, 1944.

⁵⁵M. Sherif. An Outline of Social Psychology. New York: Harper and Row, 1956.

⁵⁶Ibid.

attitudes are not necessarily logical or consistent, but it is known that those possessing a higher degree of interrelatedness are maximally resistant to change.⁵⁷

One must be aware then, that attitude formation and development has been theorized by many behavioral scientists. Allport⁵⁸ contends that the following four conditions are involved in attitude formation: (1) The integration of numerous specific responses with an organized structure; (2) The differentiation of more specific action patterns and conceptual system from premordial, nonspecific attitudes of approach and withdrawal; (3) Trauma involving "a compulsive organization of the mental field following a single intense emotional experience; and (4) The adoption of attitudes by imitation of parents, teachers and peers.

Learning theory has been applied to the psychology of attitude by Coob.⁵⁹ His effort declares that empirical evidence is available supporting the prediction from reinforcement theory that people tend to adopt when their performance has been accompanied by reward. The establishment of attitudes by these procedures of classical Pavlovian conditioning has been demonstrated.⁶⁰

⁵⁷Wilfore C. Sutton. Health for Effective Living. 5th ed., New York, McGraw-Hill Book Company, 1970.

⁵⁸Gordon W. Allport, "Attitudes," A Handbook of Social Psychology, ed., C. Murchison, Worcester: Clark University Press, 1954.

⁵⁹Leonard Coob, "The Behavior of Attitudes," Psychological Review, 54:135-56, 1947.

⁶⁰William A. Scott, "Attitude Measurement," Handbook of Social Psychology, Reading, Massachusetts: Addison-Wesley Publishing Co., 1963.

We can assume that in terms of Allport's study, this advance work lends definition to the concept of attitude formation.

A very significant point has been reported by Staat:⁶¹ "It is difficult to show that attitudes can be established and modified according to present learning principles." As Carl Hovland⁶² showed in the Yale study, the most important contribution of learning theory is the understanding of attitude change. Investigators have taken the relevance of learning theory for granted and applied its categories of stimulus response analysis, reinforcement, generalization and conflict to empirically derived problems of persuasive communication and attitude change in an effort to suggest lines of interpretation that give direction to subsequent investigations.

It is important then that one does not concentrate so much on learning theory as on what has been learned from this theory in an evaluative study of attitudes.

Maguire⁶³ contends that the need for understanding and measuring educational attitudes is great.

⁶¹Arthur Staat, "Attitudes Established by Classical Conditioning," Journal of Abnormal and Social Psychology, 57, 1958, pp. 37-40.

⁶²Carl I. Hovland, "Judgment Phenomena and Classical Conditioning," Journal of Abnormal and Social Psychology, 57, 1958, pp. 37-40.

⁶³Thomas O. Maguire, "Semantic Differential Methodology for the Structuring of Attitudes," American Education Research Journal, 10, Fall, 1973, pp. 295-306.

Grout⁶⁴ described the purpose of evaluation as follows:

1. It helps the teacher to know where to place emphasis in teaching. . .
2. It helps to show strengths and weaknesses in teaching procedure. . .
3. Evaluation made by the pupils themselves may help them to find out their own progress in improving safe behavior and stimulate them to further effort. . .
4. Evaluation may be used as a basis for marks. . .
5. Evaluation aids safety committees and curriculum planning groups in improving the coordination of schools and community safety programs. . .
6. Evaluation gives data which are useful in convincing administrators and citizens of a community of the value of driver and traffic safety instruction.

Mayshark states:⁶⁵

Even though there is frequently a lag between the time knowledge is acquired and the time it is put into practice, safety and health teaching, nevertheless, strives to have attitude changes follow closely the acquisition of knowledge.

⁶⁴Ruth Grout. Teaching in Schools. 5th ed., Philadelphia: W.B. Saunders Company, 1968.

⁶⁵Cyrus Mayshark. Health Education in Secondary Schools. 2nd ed., St. Louis: C.D. Mosby Company, 1968.

Attitudes Toward Safety

The first systematic studies, excluding attitude survey studies, to explore the safety and health needs and interests of high school and college students were conducted in the late 1920's and early 1930's by Dr. Delbert Obertuiffer.⁶⁶ His research has been the foundation from which many other efforts to explore students needs in safety and health education have been launched. The primary effort in the field of safety and health attitude assessment was not made until 1940 by Oliver Byrd.⁶⁷ His attitude instrument was a 100 statement survey utilizing the technique of Likert, i.e., a scale that is responded to from "strongly agree" to "strongly disagree." This instrument was designed for use with high school and college students. It was constructed in 1940 and although it was appropriate for that time, in today's world most of the items are antiquated.

Jack Richardson⁶⁸ studied the relationship of attitudes of college students with those of their parents with respect to the consumption of alcohol. Richardson's instrument consisted of a 20 item Thurstone, i.e., a scale that has people compare attitude statements two at a time and judging which of each pair was the more positive or the more negative; sometimes called the paired-comparison technique.

⁶⁶D. Obertuiffer, "Interests of College Freshman in Hygiene," Nation's Health, 7, 1927, pp. 48-9.

⁶⁷Oliver W. Byrd. Byrd Health Attitude Scale. Palo Alto: Stanford University Press, 1940.

⁶⁸Jack J. Richardson, "A Study of the Relationship of Attitudes of College Students and Their Parents Toward the Consumption of Alcoholic Beverages," Unpublished Doctoral Dissertation, Southern Illinois University, 1964.

Richardson's instrument was designed for the purpose of comparing student and parental attitudes. Richardson made no attempt to ascertain changes in attitude as a result of instruction. The criteria he used in selecting judges was that they were familiar with the Thurstone technique of attitude scale development. He made no mention of the expertise of the judges in the field of safety and health or safety and health education.

A study completed at Southern Illinois University by Raymond Vincent⁶⁹ was similar to that of Richardson. Vincent compared the attitudes of three grade levels, 8, 10, and 12 with respect to their predisposition toward smoking marijuana. He utilized a 20 item Thurstone scale in each of four measurement techniques. Three of the techniques involved situations wherein the respondents were to answer the attitude scale on the basis of the situation presented. The fourth measurement technique did not have a situation but rather he entitled the attitude scale "A Personal Attitude Scale." Vincent, like Richardson, made no attempt to measure changes in attitude as a result of instruction.

Successful traffic safety education is realized through the development of positive safety attitudes and the establishment of favorable driver behavior.⁷⁰

⁶⁹Raymond J. Vincent, "An Investigation of the Attitudes of Eighth Grade, Tenth Grade, and Twelfth Grade Students Towards Smoking Marijuana," Unpublished Doctoral Dissertation, Southern Illinois University, 1968.

⁷⁰Philip M. Jenkins, "Teen-agers Get Safety Assignments," Youth World, The Fresno Bee, March 17, 1978.

Mayshark⁷¹ states that positive attitude change, that is, attitude change which enhances the individual's full physical and mental endowment, represents the ultimate goal of driver and traffic safety education. Techniques of attitude evaluation fall into general categories, those that are structured and those that are unstructured. Attitude evaluation that is structured is more objective, yet less valid than attitude evaluation that is unstructured.

Attitude evaluation that is structured is represented most typically in checklists and rating scales. Complete subject matter units will include specific objectives of desirable practices and habits that will contribute to the attainment of the general unit objectives. These may be developed into a scale that seeks to determine individual patterns of behavior and thus can be used to evaluate the effectiveness of educational programs in modifying attitudes.

In 1967, F.C. Kenel⁷² submitted a doctoral dissertation to the College of Education at Michigan State University, East Lansing, Michigan, entitled "The Effectiveness of the Mann Inventory in Classifying Young Drivers into Behavioral Categories and its Relationship to Subsequent Driver Performance." The Mann Inventory consists of 63 items that reflect an individual's feelings toward himself, others and established mores. Reaction to the items in the

⁷¹Cyrus Mayshark. Health Education Secondary Schools. 2nd ed., St. Louis: C.D. Mosby Company, 1968.

⁷²Francis Carl Kenel, "The Effectiveness of the Mann Inventory in Classifying Young Drivers into Behavioral Categories and its Relationship to Subsequent Driver Performance," Unpublished Doctoral Dissertation, Michigan State University, East Lansing, 1967.

inventory are expressed by selecting one of five responses: always, usually, sometimes, rarely, and never.

The Mann Inventory⁷³ in its original form consisted of 100 items. The items represented a compilation of the feelings expressed by 100 Michigan high school students toward police, school, cars, family, peers, and society as a whole, along with personal expectations, desires and habits. Intensive case studies, including personal interviews, were conducted with each of the 100 students after driver education teachers identified them as the "worst drivers" in their respective schools.

A pilot study to select differentiating questions from among the list of 100 items was conducted with the assistance of 20 central Michigan High School Driver Education Teachers who were asked to evaluate students enrolled in their classes. Before administering the questions, the teachers were brought together and the criteria was established for the identification of three behavioral categories: 1) Very aggressive, 2) Very reserved, and 3) Average. The criteria for evaluation were as follows: 1) Very aggressive: Any student who, in the opinion of the driver education teacher through personal observation in the classroom and/or during the laboratory phase of instruction, displays behavior that is exceedingly aggressive, is a "show-off", "hot dog," is extremely egotistical or tempermental. 2) Very reserved: Any student who, in the opinion of the driver education teacher through personal observation in the classroom and/or laboratory instruction, displays behavior that is exceedingly cautious and timid. 3) Average: All students who do not fall into either of the other classifications.

⁷³William A. Mann, "Personal Attitude Survey," Highway Traffic Safety Center, Michigan State University, 1958.

The 100 items were then administered to a sample population of 451 students. Results identified 80 students as being "very aggressive," 86 as being "very reserved," and 285 as being "average." Responses to each of the items were tabulated for each of the three categories, and significant differences determined. The results of this analysis appeared to disclose that 18 given items would differentiate between the very aggressive and very reserved categories. The analysis also indicated that nearly all of the students gave identical responses to 37 of the items. As a result of this analysis, these items were deleted from the inventory.

The Mann Inventory was subsequently administered to 42 persons who had been referred to the Ingham County Driver Safety School, Lansing, Michigan, after having been found guilty of at least two moving violations and/or involved in two collisions within the preceding 12 months. Using the criteria previously established, 15 persons were identified as "very reserved," 21 as "very aggressive," and 4 as "average." The remaining two individuals compiled scores that failed to clearly place them in any of the three categories.

On the basis of this and other work by Kenel, it appeared that more behavioral categories were required than had been employed in the initial efforts. As a result, six categories of observable behavior were established:

1. Behavior characterized by well adjusted interaction with persons and which is consistent with the norms of the society in which the individual lives.

2. Behavior generally characterized by satisfactory interaction with persons and society, but with periodic withdrawal from contact with people.
3. Behavior generally characterized by satisfactory interaction with persons and society, but with periodic efforts towards assertive action.
4. Behavior characterized by forceful, outgoing action or vigorous efforts to assert oneself over others.
5. Behavior characterized by withdrawal from contact with other people.
6. Behavior characterized by a pendulum effect, moving between extremes of aggression and withdrawal.

The first extensive study undertaken to determine the significant relationships between observed behavior, driving records and behavioral categories as determined by the Mann Inventory was started in September 1958 by Kenel.

The sample population of this study consisted of all 16 to 18 year old students enrolled in driver education classes at Sexton High School, Lansing, Michigan, between September 1958 and June 1960.

The behavior of the students was observed for the one semester while they were enrolled in driver education and then continued throughout the remaining two years of the study.

The Mann Inventory was administered to each student during the last week of the driver education course. After evaluation, each response sheet was placed in one of the six behavioral categories, with each category being further divided on the basis of sex. After an elapsed time of 30 months, the individual driving records were obtained from the

driver record file of the Lansing Police Department.

A review of individual driving records disclosed that 73 percent of the individuals were in behavioral category one, 74 percent of the individuals in behavioral category two, and 62.5 percent of the individuals in behavioral category three had driving records free of violations and/or accidents during the 30 months immediately after receiving their driver's licenses. However, 82.5 percent of the individuals in behavioral category four, 62 percent of the individuals in behavioral category five and 88 percent of the individuals in behavioral category six had a driving record of violations and/or accidents during the same time period.

Further analysis revealed that 19 percent of the persons in categories one, two and three had been convicted of moving violations, while 12 percent had been involved in reportable accidents. In contrast, 65 percent of the persons in categories four, five and six had been convicted of moving violations and 52 percent had been involved in reportable accidents.

The relationship between the behavioral categories and driving records was in the same direction and magnitude as was the relationship between the Mann Inventory and observed behavior. As the individuals behavior deviated from category one toward category six, his or her driving record of convictions and/or accidents increased.

Therefore, the conclusion that the Mann Inventory can be used to identify behavior related to motor vehicle operation seems to be well established.

In 1970 Thompson⁷⁴ conducted a study at Michigan State University to determine the relationship between the Mann Inventory and driving records of adults, and to determine which items included in the Mann Inventory identify an attitude profile of an adult driver within one of four accident and violation experience categories:

1. Violation free -- accident free drivers.
2. Convicted violator -- accident free drivers.
3. Violation free -- accident involved drivers.
4. Convicted violator -- accident involved drivers.

Thompson further tried to show which of the six behavioral categories, as identified by Kenel, were prevalent in each of the four accident-violation categories.

The results revealed:

1. When the combined male and female population was analyzed by accident-violation experience categories, 13 items were found to be significant.
2. Analysis of accident-violation experience categories according to sex found 10 items for the female and eight for the male identified as significant.
3. Using the cell square contingency matrix, two items were found to be significantly related to an accident-violation

⁷⁴Adelbert Fred Thompson, "The Effectiveness of the Mann Inventory in Classifying Adult Drivers into Accident-Violation Experience Categories and its Relationship to Past Driver Performance," Unpublished Doctoral Dissertation, Michigan State University, East Lansing, 1970.

experience category.

4. Chi square analysis showed no significant relationship between the four accident-violation experience categories and the six behavioral categories.

Guyer⁷⁵ attempted to determine the relationship of behavioral categories as identified by the Mann Inventory and the driving records of 200 college students. This test group consisted of: 33 percent with no violations or reportable accidents; 20 percent having been involved in one or more reportable accidents, but no moving violation convictions; 21 percent had been convicted of moving violations, but had never been involved in an accident as a driver; and 17 percent had a record of convictions for moving violations and reportable accident involvement.

Significant differences were identified when accident and non-accident involvement were analyzed by behavioral categories. In fact, 88 percent of the individuals in category four and 70 percent of the individuals in category six were found to have been involved in accidents within the past three years. This is in contrast to an involvement of 43 percent for categories one, two and three.

Philip O'Leary⁷⁶ studied whether the findings of Kenel, regarding the relationship between observed rating and driving behavior, (1) endured over an extended period of time; (2) if the Mann Inventory

⁷⁵R. M. Guyer, "Driver Propensities and Driving Records," Unpublished Master's Thesis, Illinois State University, 1970.

⁷⁶Philip John O'Leary, "An Assessment of the Effectiveness of the Mann Attitude Inventory as a Predictor of Future Driving Behavior," Unpublished Doctoral Dissertation, Michigan State University, East Lansing, 1971.

and driving record correlated significantly in a 26-month and a 60-month period of time; and (3) which of the two ratings, teacher observed or Mann Inventory, had more validity. Four hundred sixty four male subjects were selected who had taken part in Kenel's study.

When the subjects were grouped on the basis of observed behavior, the groupings were significant as they relate to violations. This occurred in both the original as well as the follow-up study. Accident experience was significant in the original study, but not in the follow-up study. When subjects were grouped on the basis of the Mann Inventory ratings, the groupings were significant for violations in the original study as well as the follow-up study. The groupings were not significant for either time period for reportable accidents. The Mann Inventory ratings for violations were significant for both studies.

The purpose of a study conducted by Dick Lawitzke⁷⁷ was to help instructors recognize differences in attitudes of various cultural groups in relation to their self-concepts.

The sample consisted of 2,508 students from driver education classes in ten high schools of Monterey, California. The Mann Inventory was used to classify and compare the ethnic groups and sex within ethnic groups.

The ethnic groups represented were American Indian, Black-American, Mexican-American, Oriental-American, White-American and others which make up the population of the State of California.

⁷⁷Dick Bruce Lawitzke, "A Comparison of Selected Personality Characteristics of Five Ethnic Groups as Measured by the Mann Inventory," Unpublished Doctoral Dissertation, Michigan State University, East Lansing, 1974.

When comparing ethnic groups and sex within ethnic groups in the normal category, there were 16 significant differences.

In the over-controlled category, as measured by the subscores on the Mann-Inventory, there was only one significant difference: The Black-American scored much higher than the Mexican-American ethnic group.

There were 147 significant differences among males of different ethnic groups, 153 significant differences among females of different ethnic groups, and 101 significant differences based on sex within the same ethnic group.

Comparing individual items on the Mann Inventory, the White-American female had the highest number of significant differences, with 36 items when compared with White-American males; and 34 items when compared with Mexican-American females.

The final analysis of the data disclosed that there were differences and similarities among and with ethnic groups.

Studies on the effectiveness of restraining devices (seat and shoulder belts) have consistently proven their value in reducing the number of severity of automobile accident injuries. Research has also given us a profile of individuals who are most likely to use restraining devices. Restraining devices users can be described as:

1. Male
2. 25 to 35 years old
3. Married
4. College educated
5. Driving a vehicle of 1964 or newer.

It was on the basis of this criteria that Rodoff⁷⁸ administered the Mann Inventory to groups of male graduate students. Rodoff's sample population consisted of 444 male graduate students, 96 percent of whom drove automobiles equipped with restraining devices.

Analysis revealed that 32.7 to 40 percent of the individuals in categories one, two and three of the Mann Inventory reported using restraining devices 35 to 100 percent of the time. However, in contrast, 37 percent of the persons in categories four and five reported never using restraining devices, while 32 to 52 percent of individuals in categories four, five and six reported using seat belts less than 20 percent of the time.

The Rodoff study seems to suggest that by using the Mann Inventory, one could measure whether behavioral change does take place through instruction, using pre- and post-survey procedures.

An important finding from all of the studies reviewed is the possibility of measuring certain behavioral characteristics and the relationship of the characteristics to vehicle operator performance.

Summary

The review of the literature covered two areas: (1) sources on effectiveness of traffic courts driver improvement educational programs, and (2) research design, procedures and measurement instruments used to measure behavioral modification.

Previous research on traffic courts and driver improvement education programs has been limited, leaving gaps that need to be

⁷⁸J. D. Rodoff, "Behavioral Characteristics Associated with Seat Belt Utilization," Unpublished Master's Thesis, Illinois State University, 1969.

filled. Research shows that increased traffic court enforcement results in a decreased rate of traffic accidents.

In some areas of the country violators are required to attend driver improvement classes. However, only a small percentage of all traffic violators are actually assigned to these classes.

Though many of these programs exist, little is known as to their effectiveness in changing attitudes and driving habits of those enrolled. In addition, little is known about what type of programs affect the most positive change with what types of people. The need for developing and evaluating new methods of instruction which maximize effectiveness while reducing cost is evident.

The predominant role of attitudes in determining our thoughts, memory and learning processes has been recognized by psychologists since the late 19th century. Today, it is agreed that the attitudes not only determine the conclusions we derive from facts, but also influence the very facts we are willing to accept.

The first systematic studies (not of an attitude survey type) to explore the safety and health needs and interests of individuals were conducted in the late 1920's and early 1930's. This research has been the foundation from which many other efforts to explore individual needs in safety and health have been launched.

An important finding arising out of all of the studies reviewed is the possibility of identifying certain behavioral characteristics and the relationship of these characteristics to vehicle operator performance. This would seem to suggest that by using the Mann Inventory one could measure whether driver behavioral change does, in fact, take place through driver improvement instructional treatment

programs, by using a pre- and post-survey procedure.

Chapter 3 contains a description of the research methods chosen, the fourteen instructional treatment programs, and an explanation of the procedural steps used to determine the effectiveness of the fourteen driver improvement instructional treatment courses. Chapter 4 is devoted to the analysis of data, describing the relationship between the pre- and post-Mann Inventory evaluations of each of the fourteen driver improvement instructional courses; as well as the overall mean scores of the fourteen conditions. Conclusions reached, discussion of the investigation findings; specific recommendations resulting from the analysis and interpretation of the data and the implications for future research studies are presented in Chapter 5.

Chapter 3

DESIGN AND PROCEDURES OF THE STUDY

Study Design

The study sought to determine driver related behavioral change of juvenile traffic law violators after completing one of the driver improvement instructional programs of the Fresno County Juvenile Traffic Court at Fresno, California. The Mann Inventory survey instrument developed at Michigan State University by Dr. William A. Mann was utilized as the evaluation instrument.⁷⁹ The Fresno County Juvenile Court's Driver Improvement Educational Program consisted of the fourteen driver improvement instructional programs listed in Table 1 on page 8.

A second purpose was to determine driver-related behavioral change resulting from each of the fourteen driver improvement instructional programs in order to determine the effectiveness of each specific instructional treatment program.

The research null hypotheses postulated there would be no significant difference between the mean pre-survey and post-survey scores on the two scales of the Mann Inventory for the fourteen driver improvement instructional treatment programs. These scales relate to aggressive and constrictive driver behavior. The null hypothesis postulated there would be no behavioral change averaging across all the

⁷⁹William A. Mann, "Personal Attitude Survey," Highway Traffic Safety Center, Michigan State University, 1958.

treatment conditions while the fourteen null sub-hypotheses related to a "no treatment effect" for each of the fourteen programs.

Hypothesis

$$H_0: \text{DIEP}, \bar{x}_{t_1} = \text{DIEP}, \bar{x}_{t_2}$$

$$H_1: \text{DIEP}, \bar{x}_{t_1} \neq \text{DIEP}, \bar{x}_{t_2}$$

Sub-Hypotheses

$$1. \quad H_0: \text{AER}, \bar{x}_{t_1} = \text{AER}, \bar{x}_{t_2}$$

$$H_1: \text{AER}, \bar{x}_{t_1} \neq \text{AER}, \bar{x}_{t_2}$$

$$2. \quad H_0: \text{BIC}, \bar{x}_{t_1} = \text{BIC}, \bar{x}_{t_2}$$

$$H_1: \text{BIC}, \bar{x}_{t_1} \neq \text{BIC}, \bar{x}_{t_2}$$

$$3. \quad H_0: \text{CPR}, \bar{x}_{t_1} = \text{CPR}, \bar{x}_{t_2}$$

$$H_1: \text{CPR}, \bar{x}_{t_1} \neq \text{CPR}, \bar{x}_{t_2}$$

$$4. \quad H_0: \text{DEK}, \bar{x}_{t_1} = \text{DEK}, \bar{x}_{t_2}$$

$$H_1: \text{DEK}, \bar{x}_{t_1} \neq \text{DEK}, \bar{x}_{t_2}$$

$$5. \quad H_0: \text{DUH}, \bar{x}_{t_1} = \text{DUH}, \bar{x}_{t_2}$$

$$H_1: \text{DUH}, \bar{x}_{t_1} \neq \text{DUH}, \bar{x}_{t_2}$$

$$6. \quad H_0: \text{DWI}, \bar{x}_{t_1} = \text{DWI}, \bar{x}_{t_2}$$

$$H_1: \text{DWI}, \bar{x}_{t_1} \neq \text{DWI}, \bar{x}_{t_2}$$

$$7. \quad H_0: \text{MBL}, \bar{x}_{t_1} = \text{MBL}, \bar{x}_{t_2}$$

$$H_1: \text{MBL}, \bar{x}_{t_1} \neq \text{MBL}, \bar{x}_{t_2}$$

$$8. \quad H_0: \text{MSD}, \bar{x}_{t_1} = \text{MSD}, \bar{x}_{t_2}$$

$$H_1: \text{MSD}, \bar{x}_{t_1} \neq \text{MSD}, \bar{x}_{t_2}$$

$$9. \quad H_0: \text{POD}, \bar{x}_{t_1} = \text{POD}, \bar{x}_{t_2}$$

$$H_1: \text{POD}, \bar{x}_{t_1} \neq \text{POD}, \bar{x}_{t_2}$$

$$10. \quad H_0: \text{RON}, \bar{x}_{t_1} = \text{RON}, \bar{x}_{t_2}$$

$$H_1: \text{RON}, \bar{x}_{t_1} \neq \text{RON}, \bar{x}_{t_2}$$

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11. $H_0: SMF, \bar{x}_{t1} = SMF, \bar{x}_{t2}$
 $H_1: SMF, \bar{x}_{t1} \neq SMF, \bar{x}_{t2}$
12. $H_0: TAP, \bar{x}_{t1} = TAP, \bar{x}_{t2}$
 $H_1: TAP, \bar{x}_{t1} \neq TAP, \bar{x}_{t2}$
13. $H_0: TEC, \bar{x}_{t1} = TEC, \bar{x}_{t2}$
 $H_1: TEC, \bar{x}_{t1} \neq TEC, \bar{x}_{t2}$
14. $H_0: TSD, \bar{x}_{t1} = TSD, \bar{x}_{t2}$
 $H_1: TSD, \bar{x}_{t1} \neq TSD, \bar{x}_{t2}$

The first term (DIEP, AER, etc.) used in the description of the observed mean refers to the treatment conditions (See Table 1 page 8). The first subscript refers to the time of measurement $\bar{x}_{t1}$, the pre-treatment measure; and the second subscript $\bar{x}_{t2}$, the post-treatment measure.

This study took the form of a pre- post-experimental, non-control group design with fourteen systematically assigned treatment conditions. This was represented as $\bar{x}_{t1}$, x_t , $\bar{x}_{t2}$, where, over time, three things occurred: $\bar{x}_{t1}$, the pre-treatment measure on the Mann Inventory; x_t , the participation in one of the fourteen treatment conditions; $\bar{x}_{t2}$, the post-treatment measure on the Mann Inventory. Table 1 on page 8 identifies the driver improvement instructional treatment programs.

Treatments

The Fresno County Juvenile Traffic Court driver improvement educational activities assessment, alternatives, projects, and classes were designed to motivate, instruct, and improve driving behavior of young drivers appearing before the juvenile traffic court. All programs involved parental participation and awareness, and were administered by over 500 professional and lay citizens of the Fresno, California area.

Relevant administrative and logistic support was rendered by the Fresno County Probation Department, Fresno County Clerk's Office, California State University, Fresno, California Highway Patrol, California Department of Motor Vehicles, Fresno City Police Department, Student Award for Excellence in Driving (SAFE-D), and the Sgt. Sal Mosqueda Foundation.

Driver Improvement Instructional Treatment Programs

"Accident Emergency Response" (AER) was an educational course structured to teach current information and techniques about: drivers' legal responsibilities, the "Good Samaritan Act", emergency transportation for the injured, and the type of emergency first aid or life support services an individual should be able to render at the scene of a traffic accident.

"Bicycle Basic Law and Defensive Riding" (BIC) was a student, parent, and counselor program designed to improve the bicyclist's knowledge, skill, and defensive riding ability. In-depth studies were made of traffic laws, safety dynamics, and proper riding techniques. Emphasis was placed on the special hazards confronting the bicyclist, i.e., car doors opening, storm sewer covers, etc.

"Crisis Survival" (CPR) was an emergency life support instructional course designed to give the student the basic knowledge and confidence which would enable him or her to provide emergency life support activities until the paramedics arrive on the scene of an accident.

"Driver Education -- The 'Key'" (DEK) was a standard thirty-hour classroom course as prescribed by the California State Department of Education Guide on driver and traffic safety instruction. The course was offered in ten, three-hour evening sessions and was taught by a

credentialed instructor.

"Driving Under Hazardous Conditions" (DUH) was an instructional course structured to improve the vehicle operator's knowledge and skills in: emergency defensive driving methods, how to handle equipment failures, how to deal with other users of the road, and the kinds of recommended emergency equipment one should carry in a motor vehicle.

"Driving While Under the Influence" (DWI) was an educational program structured to provide current information about: drinking/driving behavior, the effects of alcohol on an individual's motor skills, the physiological and psychological effects of alcohol, and the symptoms, nature and the consequences of the illness called alcoholism.

"Motorcycle Basic Law" (MBL) was an instructional program structured to provide information about: the requirements for class IV (motorcycle) license; city and county ordinances regarding motorcycling; Department of Motor Vehicles registration requirements, fees and permits; and off-street unlicensed operators--where to ride regulations. Also, MBL was designed to help develop the student's awareness of the traffic laws and behaviors which help to insure an accident free, citation free motorcycle driving career.

"Motorcycle Safety Dynamics" (MSD) was a traffic law enforcement-student program designed to improve the motorcycle operator's knowledge, skill, and defensive riding ability. In-depth studies were made into the laws, safety dynamics, and the proper operation of a motorcycle. Special emphasis was placed on the danger of the use of drugs while operating a motorcycle.

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"Price of Death" (POD) was a research investigation into the cost of one traffic death. Its purpose was to develop a method of preventing such tragedies from happening in Fresno. Resource personnel for the project included business and administrative representatives from the Fresno area ambulance services, hospitals, mortuaries and cemetery agencies. The minor driver was required to make an appointment with a representative of his or her choice to determine how much it cost for one traffic death. His or her parents had to accompany the minor driver on each of the interviews and approve a written report of son's or daughter's findings, which were presented to the Court's program evaluator.

"Parental Defensive Driving Review" (RON) was a series of three evening discussions lasting three hours each and a six-hour on-street course designed to evaluate and improve the student's defensive driving techniques. Simulation testing was used to correct and/or improve the student's understanding of the relationship between speed, reaction time, braking distance, total stopping distances, and common driving hazards. The parent provided the six hours of on street defensive driving instruction based on the techniques presented during the discussion and evaluation session .

The "Sgt. Sal Mosqueda Licensing Workshop" (SMF) was a bi-lingual counseling and instructional course designed to assist the unlicensed Mexican-American juvenile traffic offender and his or her parents to understand the California driver-licensing law requirements and explain the consequences for operating a motor vehicle on the streets and highways without a valid drivers license.

"Traffic Accident Prevention Seminar" (TAP) was a one-day seminar structured to provide current information about how to recognize the

major driving errors of experienced drivers, the dangers of driving a vehicle at incorrect speeds for existing traffic conditions, principles of space cushion driving, and emotions -- "how they affect the driver."

"Test-Evaluate-Counsel" (TEC) was a five session seminar, structured to test and evaluate the student's actual behind-the-wheel driving skills while being observed by his or her parent and a professional evaluator. This was followed by counseling sessions to teach techniques, develop skills and habits which were designed to improve the minor driver's safe driving practices.

"Traffic Safety Dynamics" (TSD) was an educational program structured to provide current information about: natural laws affecting vehicles (gravity, centrifugal force, force of impact, kinetic energy and friction), effects of alcohol and other drugs on driving (penalties, fines, insurance premiums and incarceration). Pre- and post-evaluations were administered to measure the students knowledge growth in these vital areas.

Population

The target population was all of the juvenile traffic law violators under the age of 18 who appeared between November 15, 1977 and February 15, 1978 before the Juvenile Traffic Court Hearing Officer of the Superior Court of Fresno County, Fresno, California for a ninety day period. They all were assigned to one of the Court's fourteen driver improvement instructional treatment programs by the Juvenile Traffic Court Hearing Officer.

Time Frame

During the sixty day period prior to the study, the writer conducted inservice workshops and provided written instructions for all of the driver improvement instructors, court clerks, and court

volunteers to assure consistency in administering the pre- and post-treatment evaluations (Appendix D).

In order to determine later if the court experience had any effect on the offenders' driving behavior, the pre-treatment survey was administered during the first 45 days of the survey period by the administrative clerk of the court and before the juvenile offenders had their court hearings. During the last 45 days of the survey period, the pre-treatment survey was administered by the driver improvement treatment instructor during the first 30 minutes of the first instructional session of the driver improvement instructional treatment course. After the subjects had completed the pre-treatment surveys, both the court clerk and the driver improvement instructional treatment instructors forwarded the answer sheets to this writer.

The post-treatment survey was administered during the final instructional session of each of the fourteen driver improvement instructional treatment programs by this writer or the program instructor.

Teaching Staff

Each of the instructors was credentialed in driver and traffic safety instruction by the State of California.

In addition to academic qualifications, each instructor possessed personal attributes generally recognized as assets in this specialized area of instruction. Some of these were: 1) a genuine desire to be involved in the teaching of traffic safety, 2) a personal driving history that served as a model for his or her students to emulate, 3) an ability to recognize individual differences, 4) above-average ability to

operate several different types of vehicles safely, 5) an overall basic knowledge of driver licensing procedures, law enforcement procedures, and vehicle safety inspection procedures, 6) at least five consecutive years of safe driving experience, 7) a genuine interest in the traffic accident problem in the community, county, state and nation, 8) a conscientious desire to improve the driving behavior of juvenile traffic law offenders, and 9) a comprehensive knowledge of the driving task and an ability to perform the task in an expert manner.

Facilitites and Equipment

Facilitites and equipment of the Health Science Department of California State University, Fresno; Fresno City Unified School District; Fresno Adult School; private schools; community organizations; Fresno County; and private industries in the area were utilized to conduct the fourteen different driver improvement instructional treatment programs.

The simulation laboratory was a mobile trailer in which twelve simulator units were installed. The Raytheon Mark X model was used with the software instructional packages distributed by the Aetna Life and Casualty Insurance Company.

The multimedia laboratory was in a classroom. A 40-place Drivocator installation consisted of a communications console with a cassette tape unit, class response recorder, an individual response recorder, and student response recorders. The classroom was also equipped with overhead, film strip, slide, and 16 mm film projectors and all the necessary control hardware. Several software packages were used.

Several conventional classrooms, hospital emergency rooms, ambulances, mortuaries, cemeteries, and parking lots also were utilized.

The off-street multiple car and motorcycle instructional programs utilized parking lots in the area.

The on-street instructional programs were offered on the streets and highways in the immediate vicinity of the parking lots used. Dual control automatic transmission automobiles and 125 cc motorcycles were utilized.

Course Content

During the planning stage the instructional staff worked as a team to review and develop an outline of objectives and content of the driver improvement educational treatment program. The developed outline was then adapted for application to each of the fourteen driver improvement programs. Regardless of the type of program, students were exposed to each of the selected primary and secondary concepts. The primary instructional concept was driver behavioral modification and the secondary concept was to identify, discuss and apply the concepts of skill development and knowledge needed for safety and efficiency in today's traffic. The outlines of objectives and content for each of the fourteen driver improvement instructional treatment programs are presented in Appendix A.

Assignment of Subject

The State of California has a mandatory appearance policy requirement for all minors cited for moving traffic violations, even though the minor concedes he or she did commit the offenses and was willing to pay the usual monetary assessment. Also, in moving violation cases, at least one parent or guardian was required to attend the hearing. Parental or guardian presence in a traffic case assures that the parents or guardian are aware of the citation, understand the

reasons for the disposition made in the case, and are able to cooperate in the imposition of appropriate sanctions.

After a traffic officer had issued a citation, a copy was sent to the clerk of the Superior Court. Once the clerk had received the copy of the traffic citation, it was then sent to the Fresno County's Computer Services Center where it was placed into one of the following categories: 1) the case was transferred out to another court's jurisdiction, 2) citations written by the California Highway Patrol to be tried in the Fresno County's Traffic Court, 3) traffic tickets issued by the Fresno City Police Department or 4) cases transferred in from another state or County court. After the citation had been categorized, the court clerk then 1) matched the citation to the court docket, 2) set the hearing slate and time, 3) placed the information on the court docket, 4) mailed a Notice to Appear to the minor and his or her parents or guardian, and 5) placed the minor's name and the number of the citation on the court's daily calendar. For the study this list was then reduced by eliminating those who: 1) were found not guilty, 2) failed to appear, 3) appeared without a parent or guardian. The study population was systematically assigned to one of the treatment programs by the Traffic Court Hearing Officer after he had reviewed the following criteria: 1) offender's driving record, 2) parent's or guardian's driving record, 3) date offender's drivers license was issued, 4) juvenile court file, and 5) the section of the vehicle code violated.

At the completion of the instructional period, the number of study subjects for each treatment group was further reduced by eliminating those who were no longer enrolled in the driver improvement

instructional treatment program or did not have a completed file of evaluation criteria.

Summary

Chapter 3 was concerned with the procedures utilized in the study. The study took the form of a pre- and post-experimental, non-control group design with fourteen systematically assigned treatment conditions. The Mann Inventory was administered over a ten month period to juvenile traffic law offenders who had been assigned to one of the Fresno County Juvenile Traffic Court's fourteen treatment programs. The kind of facilities and equipment used to instruct the subjects was reviewed. The procedure the court used to assign offenders to each of the fourteen instructional treatment programs was also examined.

Chapter 4 is devoted to the statistical analysis of the data, describing the relationship between the pre- and post-Mann Inventory scales for aggressive and constrictive driver behavior modification for the Fresno County driver improvement educational treatment program.

Conclusions reached, discussion of investigation findings, specific recommendations resulting from the analysis and interpretation of the data and the implications for future research studies are presented in Chapter 5.

Chapter 4

ANALYSIS OF DATA

The study sought to determine driver related behavioral change of juvenile traffic law violators after completing one of the driver improvement instructional programs of the Fresno County Juvenile Traffic Court at Fresno, California through utilization of the Mann Inventory survey instrument developed at Michigan State University by Dr. William A. Mann.⁸⁰ The Fresno County Juvenile Traffic Court's Driver Improvement Educational Program consisted of the fourteen driver improvement instructional programs listed in Table 1 on page 8.

A second purpose was to determine driver-related behavioral change as measured by the Mann Inventory resulting from each of the fourteen driver improvement instructional programs. This was to determine the effectiveness of each specific instructional treatment program.

The overall null hypothesis postulated there would be no behavioral change averaging across all the treatment conditions. The research null sub-hypotheses postulated there would be no significant difference between the mean pre- and post-survey scores on the two scales (Appendix E) of the Mann Inventory for the fourteen driver improvement instructional treatment programs. These scales related to aggressive and constrictive driving behavior.

⁸⁰William A. Mann, "Personal Attitude Survey," Highway Traffic Safety Center, Michigan State University, East Lansing, 1958.

Hypothesis

$$H_0: \text{DIEP}, \bar{x}_{t1} = \text{DIEP}, \bar{x}_{t2}$$

$$H_1: \text{DIEP}, \bar{x}_{t1} \neq \text{DIEP}, \bar{x}_{t2}$$

Sub-Hypotheses

$$1. \quad H_0: \text{AER}, \bar{x}_{t1} = \text{AER}, \bar{x}_{t2}$$

$$H_1: \text{AER}, \bar{x}_{t1} \neq \text{AER}, \bar{x}_{t2}$$

$$2. \quad H_0: \text{BIC}, \bar{x}_{t1} = \text{BIC}, \bar{x}_{t2}$$

$$H_1: \text{BIC}, \bar{x}_{t1} \neq \text{BIC}, \bar{x}_{t2}$$

$$3. \quad H_0: \text{CPR}, \bar{x}_{t1} = \text{CPR}, \bar{x}_{t2}$$

$$H_1: \text{CPR}, \bar{x}_{t1} \neq \text{CPR}, \bar{x}_{t2}$$

$$4. \quad H_0: \text{DEK}, \bar{x}_{t1} = \text{DEK}, \bar{x}_{t2}$$

$$H_1: \text{DEK}, \bar{x}_{t1} \neq \text{DEK}, \bar{x}_{t2}$$

$$5. \quad H_0: \text{DUH}, \bar{x}_{t1} = \text{DUH}, \bar{x}_{t2}$$

$$H_1: \text{DUH}, \bar{x}_{t1} \neq \text{DUH}, \bar{x}_{t2}$$

$$6. \quad H_0: \text{DWI}, \bar{x}_{t1} = \text{DWI}, \bar{x}_{t2}$$

$$H_1: \text{DWI}, \bar{x}_{t1} \neq \text{DWI}, \bar{x}_{t2}$$

$$7. \quad H_0: \text{MBL}, \bar{x}_{t1} = \text{MBL}, \bar{x}_{t2}$$

$$H_1: \text{MBL}, \bar{x}_{t1} \neq \text{MBL}, \bar{x}_{t2}$$

$$8. \quad H_0: \text{MSD}, \bar{x}_{t1} = \text{MSD}, \bar{x}_{t2}$$

$$H_1: \text{MSD}, \bar{x}_{t1} \neq \text{MSD}, \bar{x}_{t2}$$

$$9. \quad H_0: \text{POD}, \bar{x}_{t1} = \text{POD}, \bar{x}_{t2}$$

$$H_1: \text{POD}, \bar{x}_{t1} \neq \text{POD}, \bar{x}_{t2}$$

$$10. \quad H_0: \text{RON}, \bar{x}_{t1} = \text{RON}, \bar{x}_{t2}$$

$$H_1: \text{RON}, \bar{x}_{t1} \neq \text{RON}, \bar{x}_{t2}$$

$$11. \quad H_0: \text{SMF}, \bar{x}_{t1} = \text{SMF}, \bar{x}_{t2}$$

$$H_1: \text{SMF}, \bar{x}_{t1} \neq \text{SMF}, \bar{x}_{t2}$$

$$12. \quad H_0: TAP, \bar{x}_{t_1} = TAP, \bar{x}_{t_2}$$

$$H_1: TAP, \bar{x}_{t_1} \neq TAP, \bar{x}_{t_2}$$

$$13. \quad H_0: TEC, \bar{x}_{t_1} = TEC, \bar{x}_{t_2}$$

$$H_1: TEC, \bar{x}_{t_1} \neq TEC, \bar{x}_{t_2}$$

$$14. \quad H_0: TSD, \bar{x}_{t_1} = TSD, \bar{x}_{t_2}$$

$$H_1: TSD, \bar{x}_{t_1} \neq TSD, \bar{x}_{t_2}$$

The first term (DIEP, AER, etc.) used in the description of the observed mean refers to the treatment conditions (see Table 1, page 8). The first subscript refers to the time of measurement $\bar{x}_{t_1}$, the pre-treatment measure, and the second subscript $\bar{x}_{t_2}$, the post-treatment measure.

This study took the form of a pre- and post-experimental, non-control group design with fourteen systematically assigned treatment conditions. This was represented as; $\bar{x}_{t_1}$, x_t , $\bar{x}_{t_2}$, where, over time, three things occurred: $\bar{x}_{t_1}$, the pre-treatment measure on the Mann Inventory; x_t , the participation in one of the fourteen treatment conditions; $\bar{x}_{t_2}$, the post-treatment measure on the Mann Inventory. Table 1 on page 8 identifies the driver improvement instructional treatment programs.

Administration of the Survey

The Mann Inventory (Appendix D) was administered to the 1,223 juvenile traffic offenders who appeared in the Fresno County Juvenile Traffic Court from November 15, 1977 through February 15, 1978. For the first 45 days of the study period the inventory was given to 704 individuals before their participation in one of the court programs. Five hundred forty one of the individuals were assigned to one of the court's fourteen driver improvement instructional treatment programs. During the last 45 days of the study period, the inventory was given to

527 traffic offenders after they had appeared in court and had been assigned to one of the court's driver improvement instructional treatment programs.

The response sheets were visually scanned to eliminate any incomplete answer sheets or any sheets which contained marking errors. This process eliminated six answer sheets in the post-court appearance group, making a total study population of 1054.

Analysis of Research Questions and Hypothesis

All responses were scored utilizing the aggressive and constricted driver behavior scale keys of the Mann Inventory (Appendix E). The Mann Inventory consists of 63 items that reflect on the individual's feelings toward him or herself, others and established mores. Reactions to the items in the inventory were expressed by selecting one of five responses: always, usually, sometimes, rarely, and never. The six categories of observable behavior on the Mann Inventory are:

1. Behavior characterized by well adjusted interaction with persons and consistent with the norms of the society in which the individual lives.
2. Behavior generally characterized by satisfactory interaction with persons and society, but with periodic withdrawal from contact with people.
3. Behavior generally characterized by satisfactory interaction with persons and society, but with periodic efforts towards assertive action.
4. Behavior characterized by forceful, outgoing action or vigorous efforts to assert oneself over others.

5. Behavior characterized by withdrawal from contact with other people.
6. Behavior characterized by a pendulum effect, moving between extremes of aggression and constriction.⁸¹

This study sought to determine if a juvenile traffic offender's aggressive and/or constricted driving behavior could be modified by assigning him/her to a formal instructional treatment program. Although the Mann Inventory has six behavioral categories, only categories four and five measure aggressive and constricted driver behavior, therefore, the mean, standard deviation and "t" tests were determined for behavioral categories four and five only. A dependent correlated "t" test was used to calculate the pre- and post-survey evaluations for significant differences in the offenders' aggressive and/or constricted driving behavior (Appendix I).

Evaluation of Data

Driver Improvement Educational Treatment Program Differences (DIEP)

The research null hypothesis postulated that there would be no significant difference between the mean pre- and post-survey evaluations on the two behavior categories (aggression and constriction) of the Mann Inventory for the driver improvement educational treatment program.

Table 2 presents the statistical analysis of the difference of the mean for the aggressive and constricted behavior categories for the DIEP pre-and post-assessments' data. These statistics were calculated to

⁸¹Francis Carl Kenel, "The Effectiveness of the Mann Inventory in Classifying Young Drivers into Behavioral Categories and its Relationship to Subsequent Driver Performance," Unpublished Doctoral Dissertation, Michigan State University, East Lansing, 1967.

Table 2

Aggression and Constriction Means, Standard Deviations
and "t" Tests Scores of Individual Participation in
the Fresno County Juvenile
Traffic Court's Driver Improvement
Educational Program

(N - 1054)

		Pre (O ₁)		Post (O ₂)		Results	
Scale	Mean	S.D.	Mean	S.D.	t	Significance Level + or -	
Aggression ¹	7.391	2.438	7.072	2.155	-3.21*	<u>+1.96</u>	
Constriction ²	5.837	2.620	6.266	2.188	4.18*	<u>+1.96</u>	

* Significant at .05 level

¹Smaller mean scores reflect decreased aggression

²Smaller mean scores reflect decreased constriction

determine if there was a significant difference between the pre- and post-treatment mean scores on the aggressive behavior category and/or constricted behavior category. A significant difference at the .05 level would be a "t" score of ± 1.96 or greater. A statistical analysis of the difference of means indicates that the mean scores (aggressive "t" = -3.21 and constriction "t" 4.18) were significantly different at the .05 level. The lower mean score for the after treatment evaluation on the aggressive driver behavior scale indicated a reduction in the individual's aggressive driving behavior had occurred. The higher mean score for the post-treatment on the constriction scale indicated an increased constricted driver behavior. Consequently, the null hypothesis was rejected.

Table 3 presents the results of the statistical analysis of the aggression scale for each of the fourteen driver improvement instructional treatment programs, pre- and post-survey evaluations. The "t" test results for the mean showed that two of the treatment programs (DEK and DWI) were significantly different at the .05 level.

Table 4 presents the mean, standard deviations and "t" test results for the Mann Inventory evaluations for each instructional treatment program on the constriction scale.

The constricted driver behavior scale was significantly different at the .05 level for the DEK, DWI, POD, and TAP instructional treatment programs.

It was apparent upon examining the pre- and post-survey category placement evaluation mean scores on the aggressive and constricted driver behavior scales that a significant reduction in aggressive driving behavior had occurred in two of the instructional treatment

Table 3

Aggression Scale Means, Standard Deviations and "t" Tests for
Each of Fresno County Juvenile Traffic Court's
Driver Improvement Instruction Programs

Program	N	Pre (O ₁)		Post (O ₂)		Results	
		Mean	S.D.	Mean	S.D.	t	Acceptance Level + or -
AER	109	6.725	2.372	6.936	1.663	0.75	+ 2.0
BIC	32	7.719	1.800	7.813	2.741	0.17	+ 2.042
CPR	57	7.053	2.467	6.825	1.627	-0.65	+ 2.021
DEK	114	7.588	2.460	6.640	2.079	-3.24*	+ 2.000
DUH	120	7.067	1.030	6.183	2.622	-0.69	+ 1.980
DWI	90	7.422	2.183	6.600	2.217	-2.71*	+ 2.000
MBL	35	7.371	2.426	6.514	2.306	-1.68	+ 2.042
MSD	68	7.353	2.630	7.735	2.019	0.89	+ 2.000
POD	44	7.727	2.266	7.000	2.624	-1.49	+ 2.021
RON	63	7.825	2.606	8.175	2.826	0.82	+ 2.000
SMF	76	7.276	2.403	6.763	2.337	-1.28	+ 2.000
TAP	121	7.512	2.640	7.182	2.037	-0.96	+ 1.980
TEC	38	8.053	2.504	7.395	2.021	-1.34	+ 2.042
TSD	87	7.414	2.399	7.115	1.985	-0.89	+ 2.000

* Significant at .05 Level

Note: Smaller Mean Scores Indicate Reduced Aggressive Driver Behavior

Table 4

Constricted Scale Means, Standard Deviations and "t" Tests for
Each of Fresno County Juvenile Traffic Court's
Driver Improvement Instructional Programs

Program	N	Pre (O ₁)		Post (O ₂)		Results	
		Mean	S.D.	Mean	S.D.	t	Acceptance Level + or -
AER	109	6.340	2.657	6.128	1.656	-0.71	<u>±</u> 2.000
BIC	32	5.594	2.434	5.688	2.250	0.17	<u>±</u> 2.042
CPR	57	6.246	2.880	6.790	2.644	1.24	<u>±</u> 2.021
DEK	114	5.667	2.751	6.675	2.359	2.92*	<u>±</u> 2.000
DUH	120	6.183	2.622	6.508	1.829	1.13	<u>±</u> 1.980
DWI	90	5.511	2.487	6.300	2.036	2.18*	<u>±</u> 2.000
MBL	35	5.771	2.702	5.286	2.080	-0.99	<u>±</u> 2.042
MSD	68	6.206	2.410	6.809	2.082	1.61	<u>±</u> 2.000
POD	44	4.955	2.282	5.841	2.261	2.18*	<u>±</u> 2.021
RON	63	5.254	2.664	5.651	2.287	1.07	<u>±</u> 2.000
SMF	76	6.171	2.594	6.763	2.280	1.50	<u>±</u> 2.000
TAP	121	5.686	2.630	6.347	2.171	2.00*	<u>±</u> 1.980
TEC	38	4.947	2.709	5.447	1.996	0.91	<u>±</u> 2.042
TSD	87	6.023	2.397	5.839	2.449	-0.49	<u>±</u> 2.000

* Significant at .05 Level

NOTE: Smaller Mean Scores Indicate Reduced Constricted Driver Behavior

programs DEK and DWI; and that an increased constricted driving behavior had occurred on the constricted driver behavior scale for DEK, DWI, POD and TAP treatment programs. Consequently, null sub-hypotheses five and seven were rejected, and null sub-hypotheses 10 and 13 for constriction only were also rejected.

The above results provided information about the total driver improvement education treatment population and each of the fourteen driver improvement instructional programs. However, it would be reasonable to expect that the court appearance experience would have an effect on the juvenile traffic offenders' pre- and post-survey evaluation average mean scores on aggression and/or constriction. Therefore, the pre-survey assessment was given for the first 45 days to offenders before their court hearing, and to offenders surveyed during the last 45 days of the survey period after their court hearing. Additional analysis of the data was, therefore, conducted to determine if the court experience had a significant effect on the pre- and post-survey average mean scores on aggression and constriction for each of the two groups (Pre-Court Appearance and Post-Court Appearance).

Pre-Court Appearance Group

Table 5 presents the statistical analysis of mean scores of the aggressive and constricted scales of the Pre-Court Appearance Group DIEP pre- and post-measurements data. These statistics were calculated to determine if there was a significant difference between the pre- and post-assessment mean scores on the aggressive and/or constricted scales of the Mann Inventory. A significant difference at the .05 level would be a "t" of ± 1.96 or greater. A statistical analysis of the difference of means indicates that the mean score (aggression "t" = -4.04) was

Table 5

Aggression and Constricted Means, Standard Deviations
and "t" Test Scores of
Individuals' Participaton in the
Pre-Court Appearance Group

N = 535

Pre (O ₁)		Post (O ₂)		Results		
Scale	Mean	S.D.	Mean	S.D.	t	Significance Level + or -
Aggressive ¹	6.735	2.320	6.211	2.209	-4.04*	<u>+1.960</u>
Constricted ²	6.718	2.385	6.895	2.039	1.37	<u>+1.960</u>

* Significant at .05 Level

¹Smaller mean scores reflect decreased aggression

²Smaller mean scores reflect decreased constiction

significantly different at the .05 level. Consequently, null hypothesis 1 for the Pre-Court Appearance Group on aggression was rejected.

Table 6 presents the mean, standard deviation and "t" test score results for the Mann Inventory assessment for each of the pre-court appearance groups' instructional treatment programs on aggression. The aggressive driver behavior scale scores were significantly different at the .05 level for the AER, MBL, RON, TAP and TEC instructional treatment programs.

Table 7 presents the results of the statistical analysis for constriction for each of the pre-court appearance group's fourteen driver improvement instructional programs pre- and post-assessment data at the .05 level of significance. The "t" tests results for the mean showed that three of the treatment programs (AER, BIC, and TAP) were significantly different at the .05 level.

The pre- and post-survey category placement evaluation mean scores on the aggressive and constricted driver behavior scales showed that a significant reduction in aggressive driver behavior had occurred in five of the pre-court appearance groups on the constriction scale (AER, MBL, RON, TAP, and TEC) and in one group (BIC) on the constricted scale. The AER and TAP pre-court appearance group instructional treatment programs showed a significant increase had occurred on the constricted driver behavior scale. Consequently, null sub-hypotheses 2 and 12 were rejected, null sub-hypothesis 3 was rejected for constriction and null sub-hypotheses 8, 11 and 14 were rejected for aggression for the Pre-Court Appearance Group.

Table 6

Analysis of the Aggressive Scale Means, Standard Deviations
and "t" Test Scores for the Pre-Court Appearance Group for
Each Driver Improvement Instructional Treatment Program

Program	N	Pre (O ₁)		Post (O ₂)		Results	
		Mean	S.D.	Mean	S.D.	t	Acceptance Level + or -
AER	63	7.238	2.270	5.968	1.805	-3.66*	<u>±</u> 2.000
BIC	14	7.071	1.542	6.643	1.692	-0.59	<u>±</u> 2.160
CPR	29	7.345	2.595	7.414	2.338	0.10	<u>±</u> 2.048
DEK	51	6.784	2.309	6.157	2.310	-1.51	<u>±</u> 2.021
DUH	65	6.877	2.183	6.708	2.097	-0.51	<u>±</u> 2.000
DWI	46	5.783	2.449	5.522	2.095	-0.55	<u>±</u> 2.021
MBL	17	6.235	2.818	4.588	1.623	-2.57*	<u>±</u> 2.120
MSD	43	6.698	2.042	7.000	2.127	0.71	<u>±</u> 2.021
POD	19	5.421	2.411	5.526	2.525	0.16	<u>±</u> 2.101
RON	24	6.833	2.099	5.625	1.974	-2.71*	<u>±</u> 2.069
SMF	43	6.977	2.454	7.209	2.559	0.44	<u>±</u> 2.021
TAP	61	6.869	2.349	5.869	2.349	-2.31*	<u>±</u> 2.000
TEC	15	6.467	2.696	4.133	0.916	-3.58*	<u>±</u> 2.145
TSD	45	6.644	2.058	6.356	1.667	-0.73	<u>±</u> 2.021

* Significant at .05 Level

NOTE: Smaller Mean Scores Indicate Reduced Aggressive Driver Behavior

Table 7

Analysis of the Constricted Scale Means, Standard
Deviations and "t" Test Scores for the Pre-Court
Appearance Group for Each Driver
Improvement Instructional Treatment Program

Program	N	Pre (O ₁)		Post (O ₂)		Results	
		Mean	S.D.	Mean	S.D.	t	Acceptance Level + or -
AER	63	5.825	2.159	6.841	1.628	3.16*	<u>±</u> 2.000
BIC	14	7.214	2.007	5.643	1.336	-3.15*	<u>±</u> 2.160
CPR	29	6.172	2.406	6.759	1.618	1.10	<u>±</u> 2.048
DEK	51	7.118	2.422	6.961	2.181	-0.35	<u>±</u> 2.021
DUH	65	6.615	2.241	6.662	1.726	0.15	<u>±</u> 2.000
DWI	46	7.130	2.455	6.261	2.361	-1.91	<u>±</u> 2.021
MBL	17	6.529	2.153	6.588	1.873	0.11	<u>±</u> 2.120
MSD	43	6.767	2.487	7.674	1.822	1.99	<u>±</u> 2.021
POD	19	7.632	2.087	7.684	2.605	0.07	<u>±</u> 2.101
RON	24	6.833	2.745	7.167	2.616	0.58	<u>±</u> 2.069
SMF	43	6.651	2.329	5.814	1.666	-1.67	<u>±</u> 2.021
TAP	61	6.475	2.406	7.541	1.920	2.59*	<u>±</u> 2.000
TEC	15	7.200	2.569	7.867	2.134	0.81	<u>±</u> 2.145
TSD	45	7.244	2.524	7.089	2.265	-0.33	<u>±</u> 2.021

* Significant at .05 Level

NOTE: Smaller Mean Scores Indicate Reduced Constricted Driver Behavior

Post-Court Appearance

Table 8 presents the statistical analysis of mean scores of the aggressive and constricted behavioral scales of the Post-Court Appearance Group DIEP pre- and post-measurements data. These statistics were calculated to determine if there was significant difference between the pre- and post-assessments mean scores on the aggressive and/or constricted driver behavioral scales of the Mann Inventory. A significant difference at the .05 level would be a "t" of ± 1.96 or greater. A statistical analysis of the difference of means indicated that the mean scores (aggression "t" = -5.62 and constriction "t" = 9.53) were significantly different at the .05 level. The lower mean scores for the after treatment evaluation on the aggressive driver behavior scale indicated that a reduction in the individuals aggressive driving behavior had occurred. The higher mean scores for the post-treatment on the constricted driver behavior indicated an increased constricted behavior. Consequently, the null hypothesis for the Post-Court Appearance Group was rejected.

Table 9 presents the results of the statistical analysis for aggression for each of the post-court appearance groups' fourteen driver improvement treatment programs pre- and post-survey evaluation data. The "t" test results showed that four of the treatment programs (CPR, DEK, TAP, and TEC) were significantly different at the .05 level.

Table 10 presents the mean, standard deviation, and "t" test results for the Mann Inventory assessments of each post-court appearance groups' instructional treatment program for constriction. The constricted driver behavior scale was significantly increased for AER, DEK, DWI, POD, RON, TAP and TEC instructional treatment programs.

Table 8

Aggression and Constriction Means, Standard Deviation
and "t" Test Scores of Individuals'
Participation in the Post-Court
Appearance Group

N = 519

Pre (O ₁)		Post (O ₂)		Results		
Scale	Mean	S.D.	Mean	S.D.	t	Significance Level + or -
Aggression ¹	8.085	2.296	7.254	2.256	-5.62*	<u>+1.96</u>
Constriction ²	4.911	2.592	6.322	2.167	9.53*	<u>+1.96</u>

* Significant at .05 level

¹Smaller mean scores reflect decreased aggression

²Smaller mean scores reflect decreased constriction

Table 9

Analysis of the Aggression Scale Means, Standard Deviations

and "t" Test Scores for Each Driver Improvement

Instructional Program

The Post-Court Appearance Group

Program	N	Pre (O ₁)		Post (O ₂)		Results	
		Mean	S.D.	Mean	S.D.	t	Acceptance Level + or -
AER	46	7.957	2.097	7.065	1.718	-1.95	<u>+2.021</u>
BIC	18	8.111	1.568	9.500	2.333	1.71	<u>+2.101</u>
CPR	28	7.964	2.219	6.893	1.663	-2.69*	<u>+2.052</u>
DEK	63	7.968	2.443	6.381	1.971	-4.30*	<u>+2.000</u>
DUH	55	8.018	2.438	7.546	2.080	-1.00	<u>+2.021</u>
DWI	44	7.727	1.835	6.955	2.023	-1.92	<u>+2.021</u>
MBL	18	8.167	2.456	6.444	2.706	-2.09	<u>+2.110</u>
MSD	25	8.367	2.612	7.840	2.357	-0.61	<u>+2.064</u>
POD	25	7.800	2.432	6.480	2.568	-2.04	<u>+2.064</u>
RON	39	8.436	2.439	8.795	2.802	0.60	<u>+2.042</u>
SMF	33	8.091	2.283	8.000	2.525	-0.14	<u>+2.042</u>
TAP	60	8.567	2.459	6.817	2.103	-3.51*	<u>+2.000</u>
TEC	23	8.609	2.350	7.087	1.929	-2.76*	<u>+2.080</u>
TSD	42	7.595	2.275	7.143	1.661	-0.95	<u>+2.021</u>

* Significant at .05 Level

NOTE: Smaller Mean Scores Indicate Reduced Aggressive Driver Behavior

Table 10

Constricted Scale Means, Standard Deviations and "t" Test Scores
for the Post-Court Appearance Group for Each
Driver Improvement Instructional Treatment Program

Program	N	Pre (O ₁)		Post (O ₂)		Results	
		Mean	S.D.	Mean	S.D.	t	Acceptance Level + or -
AER	46	5.109	2.677	6.348	1.418	2.79*	+2.021
BIC	18	4.444	2.406	4.944	2.388	0.61	+2.101
CPR	28	5.107	2.753	6.143	2.825	1.83	+2.052
DEK	63	4.762	2.763	7.095	2.333	4.98*	+2.000
DUH	55	5.364	2.870	6.273	1.433	1.90	+2.021
DWI	44	5.227	2.523	7.114	1.631	3.78*	+2.021
MBL	18	5.333	2.590	5.944	2.287	0.94	+2.110
MSD	25	5.360	2.782	6.480	2.003	1.57	+2.064
POD	25	4.600	2.160	6.080	2.060	3.11*	+2.064
RON	39	4.282	2.523	5.667	2.485	2.93*	+2.042
SMF	33	5.121	2.421	6.182	1.722	1.78	+2.042
TAP	60	4.482	2.354	6.833	1.870	5.85*	+2.000
TEC	23	3.957	2.440	6.300	2.055	4.44*	+2.080
TSD	42	5.357	2.574	5.286	2.998	-0.11	+2.021

* Significant at .05 Level

NOTE: Smaller Mean Scores Indicate Reduced Constricted Driver Behavior

It was apparent upon examining the pre- and post-survey category placement evaluation mean scores on the aggressive and constricted driver behavior scales that a significant reduction in aggressive driving behavior had occurred in four of the post-court appearance groups instructional treatment program i.e., CPR, DEK, TAP, and TEC; and that an increased constricted driving behavior had occurred on the constricted driver behavior scale for the AER, DEK, DWI, POD, RON, TAP, and TEC treatment programs. Consequently, null sub-hypotheses 5 and 13 were rejected, null sub-hypothesis 4 for aggression was rejected and null sub-hypotheses 2, 7, 10 and 11 for constriction were rejected (Appendix I).

It was also apparent upon further examination of the pre-and post-survey category placement evaluation mean scores on the aggressive and constricted driver behavior scales that a change occurred, although not at a significant level, in all of the treatment programs.

Summary

Chapter 4 was concerned with the statistical analysis of the data. The Mann Inventory survey was administered to juvenile traffic offenders appearing in the Fresno County Juvenile Traffic Court from November 15, 1977 through August 26, 1978.

The pre- and post-assessment responses were scored utilizing the aggressive and constricted driver behavior keys of the Mann Inventory (Appendix E). A correlated "t" test was used to calculate the pre- and post-survey evaluations for significant differences in the offenders' aggressive and/or constricted driving behavior. DIEP treatment mean scores on the aggressive driver behavior scale after treatment were

lower than before treatment, which indicated a reduced aggressive driving behavior at the completion of the treatment program. The higher mean scores for post-treatment on the constriction scale signaled a greater constricted driver behavior.

The pre-court appearance group showed a reduction on the aggressive scale. The post-court appearance group indicated a reduced aggressive driving behavior and the constricted score showed an increase in the constricted driving behavior.

Conclusions reached, discussion of the investigation findings, specific recommendations resulting from the analysis and interpretation of the data and the implications for future research studies are presented in Chapter 5.

Chapter 5

SUMMARY, FINDINGS, CONCLUSIONS,

RECOMMENDATIONS FOR FURTHER STUDY, RECOMMENDATIONS AND DISCUSSION

This study was designed to determine if there would be changes in driver related behavior of juvenile traffic law violators after completing one of the driver improvement instructional programs of the Fresno County Juvenile Traffic Court at Fresno, California. The Mann Inventory was utilized as the survey instrument. It has been theorized by many social scientists that if one is able to assess the attitude of an individual then he or she will be able to make intelligent predictions about that individual's actions as related to the attitude object. Since the goal of driver improvement education is expressed in terms of behavior, and since behavior in its broadest sense (including habits of thinking as well as action) is influenced by attitude and knowledge, it follows then that the primary concern of driver improvement education is to affect positive changes in driving behavior.⁸²

Both social and behavioral scientists have researched attitude measurement techniques for decades, but there has been little exploration of safety attitudes. Veenker contends:

The inadequate measurement of driver improvement education outcomes in the past may be largely attributed to a general lack of well-developed evaluation instruments, a major inadequacy in driver improvement education. While a number of standardized driver knowledge tests have been produced, little has been done in the area of driver improvement education attitude measurement; only a few driver and safety attitude scales have been developed in the past thirty years.⁸³

⁸²Rash J. Keogh. The Health and Safety Curriculum. Bloomington: Indiana University, 1970.

⁸³Harold C. Veenker, "Results of Measuring Knowledge, Attitudes and Practices of Young Adults," Synthesis of Research in Selected Areas of Instruction, New York: School Education Study, 1973.

In addition, there is a continuing need for study, research and the structuring of instruments to measure this important link between driver behavior, driver knowledge and driver practices. Improved measuring instruments would bring objectivity to bear upon the identification and evaluation of the factors which affect improved driving behavior.⁸⁴

The goal toward which all driver improvement education is aimed is to produce well adjusted, physically capable drivers with practices, attitudes and knowledge which will assure them a high level of accident-free driving. To meet this goal, the traffic court judges and driver improvement educators must evaluate their efforts. This evaluation must be undertaken to determine the present level of student achievement and to provide data upon which to base improvements in the actual court procedures and the teaching process.⁸⁵

This study was the first juvenile court driver improvement educational program evaluation to use the Mann Inventory.

Summary

To analyze the problem, the null hypothesis postulated that there would be no aggressive and/or constricted driver behavioral change averaging across all the conditions, while the fourteen null sub-hypotheses related to a "no treatment effect" for each of the fourteen Programs.

The review of literature covered two areas: 1) sources on effectiveness of traffic court driver improvement educational

⁸⁴Robert E. Schneider. Methods and Materials of Health and Safety Education. Philadelphia, W. B. Saunders Company, 1964.

⁸⁵Philip M. Jenkins, Fresno County Juvenile Traffic Court Hearing Officer, Personal Interview, 1978.

programs, and 2) research design, procedures and measurement instruments used to measure behavioral modification. The research and related information reviewed provided a basis for the research questions, design and procedure utilized to develop the study.

The results of the statistical analysis of the pre- and post-assessment for the driver improvement educational program were:

1. The Driver Improvement Educational Program (DIEP) aggressive scale mean and standard deviation scores between the pre- and post-survey evaluations indicated a significant reduction in the aggressive driver's behavior scale at the .05 level as determined by a correlated "t" test.

2. The DIEP constricted scale mean, standard deviation and "t" test scores between the pre- and post-survey assessment showed a significant increase on the constricted driver's behavior scale at the .05 level.

3. Two of the fourteen driver improvement instructional treatment programs showed a significant difference for aggressive and constricted driver behavior at the .05 level. The DEK and DWI (see Table 11, page 80) treatment programs showed a significant reduction on the aggressive driver's behavior scale. The DEK, DWI, POD and TAP had a higher mean score for the post-treatment assessment on the constricted scale, which indicated a greater constricted driver behavior.

The results of the statistical analysis of the pre-court appearance group DIEP were:

Table 11

Driver Improvement Instructional Treatment

Program Titles and Their Abbreviations

Program Title	Abbreviation
Driver Improvement Educational Treatment Program	DIEP
1. Accident Emergency Response	AER
2. Bicycle Basic Law and Defensive Riding	BIC
3. Crisis Survival	CPR
4. Driver Education - - The Key	DEK
5. Driving Under Hazardous Conditions	DUH
6. Driving While Under the Influence	DWI
7. Motorcycle Basic Law	MBL
8. Motorcycle Safety Dynamics	MSD
9. Price of Death	POD
10. Parental Defensive Driving Review	RON
11. Sgt. Sal Mosqueda Licensing Workshop	SMF
12. Traffic Accident Prevention	TAP
13. Testing, Evaluation and Counseling	TEC
14. Traffic Safety Dynamics	TSD

1. The pre-court appearance DIEP aggressive mean and standard deviation scores between the pre- and post-treatment evaluation indicated a significant reduction in the aggressive driver's behavior at the .05 level, as determined by a correlated "t" test.

2. Five of the fourteen driver improvement instructional treatment programs showed a significant difference for aggressive driver behavior at the .05 level. The AER, MBL, RON, TAP, and TEC treatment programs had lower mean scores for the post-treatment evaluations on the aggressive scale, which indicated a reduction in aggressive driver behavior.

3. Three of the fourteen instructional programs had a statistical difference on their constricted driver behavior mean, standard deviation and "t" test scores which were significantly different at the .05 level. The AER and TAP treatment programs showed a significant increase while the BIC treatment program indicated a significant reduction on the constricted drivers' behavior scale.

The test results of the post-court appearance group DIEP were:

1. DIEP aggressive mean and standard deviation scores between the pre- and post-survey evaluations were significantly different at the .05 level as determined by a correlated "t" test. The mean scores on the aggressive driver behavior scale were lower after treatment than before, which indicated a reduced aggressive driving behavior at the completion of the treatment program.

2. The DIEP constricted scores showed a significant increase in the constricted driver behavior scale at the .05 level.

3. Four of the fourteen driver improvement instructional treatment programs revealed a significant difference for aggressive

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driver behavior mean at the .05 level. The CPR, DEK, TAP, and TEC treatment programs showed a significant reduction on the aggressive drivers' behavior scale.

4. Seven of the fourteen driver improvement instructional treatment programs had a significant difference on their constricted driver behavior scores at the .05 level. The AER, DEK, DWI, POD, RON, TAP and TEC treatment programs showed a significant increase on the constricted drivers' behavior scale.

5. It was also apparent upon further examination of the pre- and post-survey category placement evaluation mean scores on the aggressive and constructed driver behavior scales that a change, although not significant level, in all of the treatment programs.

Findings

Based on the data and evidence of this study, the following findings were drawn:

1. The null hypothesis was rejected for the pre- and post-assessment of the Fresno County Juvenile Traffic Courts driver improvement educational treatment program. A significant difference did exist between the before and after treatment assessments.

2. The Fresno driver improvement educational treatment program survey findings showed that a significant reduction in the driver's aggressive driving behavior had been achieved, while at the same time intensifying the constricted driving behavior.

3. The null hypothesis for aggressive driver behavior was rejected for the pre- and post-assessment of the Pre-Court Appearance Group driver improvement educational treatment program. A significant

difference did exist between the before and after treatment assessments. The null hypothesis for constricted driver behavior was accepted for the pre- and post-assessment of the Pre-Court Appearance Group driver improvement educational treatment program.

4. The Pre-Court Appearance Group driver improvement educational treatment program survey finding showed that a significant reduction in the driver's aggressive driving had been achieved.

5. The null hypothesis was rejected for the pre- and post-assessment of the Post-Court Appearance Group driver improvement educational treatment program. A significant difference did exist between the before and after treatment assessments.

6. The Post-Court Appearance Group driver improvement educational treatment program survey findings showed that a significant reduction in the driver's aggressive driving behavior had been achieved, while at the same time intensifying the constricted driving behavior.

7. There is sufficient evidence to suggest that all of the on going fourteen driver improvement instructional treatment programs had some effect in influencing a juvenile traffic offender's aggressive and constricted driving behavior during the instructional period.

Conclusions

Based on the findings of this study, the following conclusions were drawn:

1. The Fresno County Juvenile Traffic Courts driver improvement educational treatment program was effective in influencing a juvenile traffic offender's aggressive and constricted driving behavior during the instructional period.

2. Drawn from the findings, the Pre-Court Appearance Group driver improvement educational treatment program was effective in influencing a juvenile traffic offender's aggressive driving behavior during the instructional period.

3. Drawn from the findings, the Post-Court Appearance Group driver improvement educational treatment program was effective in influencing a juvenile traffic offender's aggressive and constricted driving behavior during the instructional period.

Recommendations for Further Study

1. There is sufficient evidence from all groups (pre-court and post-court) to suggest that traffic courts should conduct similar studies on their assignment procedures and the development of the curriculums of their driver improvement instructional courses. This recommendation is based on the study findings that showed a reduction in aggressive driving behavior while at the same time increasing the constricted driving behavior.

2. Follow-up studies need to be conducted to identify evaluation questions yet to be addressed. Answers are not yet clear as to the need for inclusion of specific educational content areas, length of educational time, methods of education in specific areas, differential education by subject background, etc. While of extreme value to designers of driver improvement educational programs, the development of such an information base is hindered by the lack of use of driver performance standards for juvenile traffic offenders, the need to adhere to a proven curriculum, and the lack of evaluation instruments.

3. That the Mann Inventory be reevaluated on its effectiveness in classifying young drivers into behavioral categories and its relationship to subsequent driver performance.

Recommendations

As a result of the study, several recommendations are made for driver improvement educational treatment programs.

1. There appears to be ample evidence to warrant more precise and critical evaluations and surveillance of traffic court driver improvement educational programs for purposes of initial and continued curriculum development, and for the assignment of traffic law violators to instructional programs. This recommendation is based on the study findings of DIEP aggressive and constricted driver behavior modification scales mean and standard deviation scores, which showed a significant difference between the before and after treatments.

2. The California Juvenile Traffic Courts Association should design procedures and dispositional alternatives to meet the special needs of juvenile drivers. The development of a juvenile traffic court guideline manual would promote uniformity of procedures and improvement in existing services. Such a manual would be of great assistance to juvenile traffic court hearing officers when developing standards and programs directed to particular problems of juvenile traffic offenders who are involved in more accidents, injuries and deaths than any other segment of the driving population.

3. Driver improvement instructors should strive constantly to maintain and improve the integrity of their profession. Basic to this integrity is a personal effort toward developing and maintaining an

extremely high level of driving proficiency and performance. Driver improvement instructors should encourage a thorough and critical evaluation of the total driver improvement educational program within their own superior court. Essential to such active encouragement, however, is the individual's membership in and support of local, state and national level professional driver improvement educational instructors organizations.

4. An assessment instrument should be refined to assess driver knowledge, attitudes and practices.

5. Attention should be given to driver behavior modification analysis, development of specific goals that are derived from modification analysis, formulation of performance objectives application of teaching approaches and techniques that are in line with goals and objectives, and improvement of evaluation procedures with direct reference to behavioral modification.

Discussion

Traditionally, education has supported the theory that students exposed to structured educational experience in the schools under the instruction of competent teachers can be effectively prepared for successful interaction within our society. The traffic accident problem affects juvenile drivers more than any other age group, and therefore juvenile driver improvement education programs must be a primary concern of parents, judges, hearing officers, traffic safety educators, law enforcement personnel and legislators.

It is most likely that the first contact a youth will have with the law enforcement and judicial system in his or her community is through a

traffic citation. The first contact and the way it is handled may well influence the youth's opinion of the justice system which could have a lifetime effect on his or her feelings toward society. The responsibility of the driver improvement program and the juvenile traffic court is to properly adjudicate and dispose of each traffic citation referred by law enforcement.

Individual hearings, however, are time-consuming and there are only so many hours in a court day. Traffic citation volume then becomes a serious problem to many courts and all too frequently many judges have resorted to the time honored adult traffic procedure, "cash register justice."

This researcher feels that when traffic citations are handled in this way, the court and society misses a valuable opportunity to develop a safe, more skillful and law abiding young driver. Research indicates that young drivers are immature, inexperienced, and inclined to act on their emotions. However, this does not excuse the community from providing viable driver improvement programs for the young driver through the juvenile traffic court, the state's driver improvement educational programs and the alcohol safety action program. Paying a fine may impress upon a person that breaking the law costs money, but it will rarely add to his or her knowledge, skill and perceptions which one must have to improve driving behavior. Many young drivers are still learning through hard experience - - experience that endangers their own lives and the lives of other roadway users.

Research has shown that in order to reduce traffic accidents we must start with the driver and we must start as early as possible in his or her driving career. Certainly, remedial action is called for when he

or she has been detected committing a moving traffic violation that could or has caused a traffic accident. The most opportune time to expose him or her to meaningful driver improvement programs is after a traffic citation has been processed by the juvenile court or diversion of motor vehicle improvement setting.

While the evidence in this study tended to support the hypothesis that juvenile traffic offenders aggressive and/or constricted driving behavior can be modified, it is disconcerting to discover that traffic court judges, traffic court hearing officers, driver improvement instructors and administrators, law enforcement officials and department of motor vehicle administrators do not seem to be aware of this possibility. Current criticism is not an indictment against all driver improvement instructors, traffic court judges, juvenile traffic court hearing officers and driver improvement education administrators. The majority undoubtedly have sincere dedication to the principles of their profession in both spirit and practice. Current criticism is, however, an indictment against those traffic safety professionals, administrators and judges who continue to be insensitive to their social responsibilities relating to juvenile driving behavioral modification.

The comparison of the fourteen on going driver improvement instructional treatment programs survey findings indicated that several of the treatment programs had effected change, while others had no significant effect on the individual's aggressive and/or constricted driving behavior assessment scores. Whether the change in behavior was caused by the teacher, course, content, method of instruction, number of instructional sessions, number of instructional hours, some other

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outside influence, or a combination of these factors is impossible to determine from the data.

The comparison of the pre-court and post-court appearance groups survey findings showed that something had occurred which effected the individuals' aggressive and constricted driving behavior assessment scores. Whether the effect was caused by the offenders' court appearance, the instructional program, some other outside influence, or a combination of these factors is impossible to determine from the data.

This researcher feels that those driver improvement instructional programs which project the feeling that parents still have the most vital influence upon the driving behaviors of their sons and/or daughters. Therefore, the driver improvement instructional programs which impart to both the parent and the youthful driver the safest and most skillful techniques for perceptive driving seemed to be the most effective. Three (RON, TEC and TSD) of the Fresno County Juvenile Traffic Court's driver improvement instructional treatment programs seemed to be more successful because they stress this one important element.

APPENDICES

APPENDIX A

**FRESNO COUNTY JUVENILE TRAFFIC COURTS
DRIVER IMPROVEMENT INSTRUCTIONAL TREATMENT PROGRAMS**

THE SUPERIOR COURT
COUNTY OF FRESNO
FRESNO, CALIFORNIA 93721

PHILIP M. JENKINS
JUVENILE COURT TRAFFIC
HEARING OFFICER
ROOM 100, COURTHOUSE
TELEPHONE: 488-3619

"A. E. R."

ACCIDENT EMERGENCY RESPONSE

SPONSORED BY:

FRESNO ADULT SCHOOL
DONALD L. MCCOLM, DIRECTOR

CREDENTIALLED INSTRUCTOR:

OFFICER JAMES TAYLOR
CALIFORNIA HIGHWAY PATROL

STUDENT ASSIGNMENTS BY:

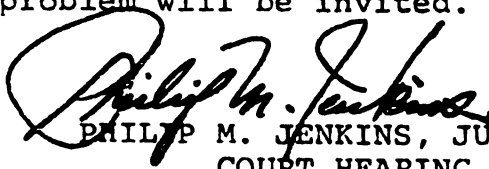
JUVENILE TRAFFIC COURT
(PARENTS ENCOURAGED TO COME AS GUESTS)

This course is designed to help you, the licensed driver, to increase your knowledge in this vital area. Lawful drivers, responsible drivers and drivers concerned with the lives of others, will value the knowledge and understanding obtained from this timely course.

The important questions to be covered in this course are:

1. What are my lawful, legal and moral responsibilities in the event of a driving accident? (Injury or property damage, CVC)
 - a. Accidents that I am a part of or involved in?
 - b. Accidents that I am a witness to?
 - c. Can I be prepared to know what to do to save a life in the event of such an accident emergency?
2. What type of emergency first aid or life support services (CPR) should I be able to render? What should I not do?
 - a. What type of emergency first aid equipment should I carry with me as a driver? What can I use in the event I lack such equipment? (Demonstration of emergency flare).
3. What legal liabilities, if any, do I assume to assist an injured motorist, pedestrian, bicyclist, motorcyclist, or animal? What is the "Good Samaritan Act?" Emergency Transportation and Law Enforcement Assistance.
4. What can prevent such accidents in the first place? What are the prime and underlying causes of such tragic accidents?

During class discussion and participation, your personal experiences and questions regarding this problem will be invited.



PHILIP M. JENKINS, JUVENILE TRAFFIC
COURT HEARING OFFICER

BICYCLE EDUCATION,
REEDUCATION,
DEFENSIVE RIDING,
and EQUIPMENT SAFETY

An Instructor-student-parent program regarding bicycle safety sponsored by the Fresno City Police Department, 2323 Mariposa St. Fresno, Calif.

OBJECTIVES:

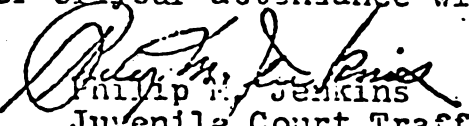
1. To educate bicyclists on laws and proper procedures of bike riding
2. To establish in-depth education on bike laws
3. To attempt to prevent accidents by proper education on laws and procedures
4. To inform bicyclists on statistics on injuries and fatalities of bicycles versus vehicles

METHODS USED:

1. Issuance of Bicycle citations (Calif. Vehicle Code)
2. Films on proper bicycling, containing the laws.
 - (1) directed to Juveniles
 - (2) directed to adults
3. Oral information on bicycling laws and proper riding
4. Bicycle safety-check (equipment) demonstration
5. Written tests on bicycle laws and safety rules.

STUDENT: This Saturday morning Bicycle Safety Course held at the headquarters of the Fresno City Police Department has been designed not only to help you understand the law but learn as well, how to survive on the street where you must ride your bicycle.

Your class will be: Saturday _____ 19__ at 9:00 AM. Please with your parent report promptly. A roster of your attendance will be returned to the Court.


Philip M. Jenkins
Juvenile Court Traffic
Hearing Officer

THE SUPERIOR COURT
COUNTY OF FRESNO
FRESNO, CALIFORNIA 93721

CARDIO PULMINARY RESUSCITATION
"Crisis Survival"

PHILIP M. JENKINS
JUVENILE COURT TRAFFIC
HEARING OFFICER
ROOM 100, COURTHOUSE
TELEPHONE: 488-3619

"CPR", a life support course is sponsored by Fresno Adult Education and staffed by qualified instructors in the Paramedic field. The course is approved by the Central Valley Heart Association.

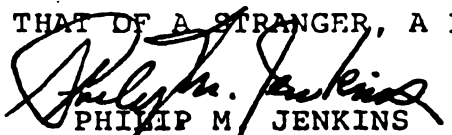
Traffic infractions, intended or otherwise, often end in accidents causing injury and death. Driver negligence can easily take a life...How many of us know how to SAVE a life if called upon? "CRISIS SURVIVAL" is conducted by outstanding instructors in this field and is designed to give YOU basic knowledge and confidence YOU MAY BE ABLE TO SAVE A LIFE and give life support until paramedic personnel arrives on scene.

COURSE REQUIREMENTS: \$2.00 Unit enrollment fee paid at Adult Education Office: 4472 E. Tulare St. (Roosevelt High School) on night of assignment between 6:45 and 7:00 PM. Course material provided by the Central Valley Heart Association available at Adult Edu. Office (\$1.00) and must be in student's possession prior to class. Note taking materials required. Classes start promptly at 7:00 PM. Casual clothing advised for all sessions.

BASIC CPR COURSE OUTLINE AND INSTRUCTION

1. EARLY WARNING SIGNS - heart attack - need for urgent and proper action.
2. SYSTEM ENTRY - methods and techniques.
3. DIFFERENCES BETWEEN BIOLOGICAL AND CLINICAL DEATH - life support measure
4. ANATOMY OF HEART - history of resuscitation.
5. AIRWAY - common causes for closure - adequate and inadequate breathing - steps in opening airway.
6. BREATHING - mouth to mouth - how to perform - when it fails - child variation - problems - gastric distention - how to relieve - vomiting.
7. CIRCULATION - heart - lungs - brain.
8. EXTERNAL CARDIAC COMPRESSION - common causes for cessation of heartbeat.
9. INITIAL PROCEDURES - recognizing a pulse beat - initial pupil check - thumb: when and how.
10. PROPER POSITION OF VICTIM - proper compression point - why.
11. ONE RESCUER - TWO RESCUERS - proper hand positions - change-over process
12. PERFORMANCE - how to perform - amount of pressure - rate rhythm.
13. CHILD VARIATION - breakdown in weight and years.
14. SPECIAL CASES - drowning - fractured sternum - broken neck - choking.
15. DEALING WITH EMOTIONAL FAMILY MEMBERS OR ONLOOKERS.
16. EFFECTIVE CPR - when to start - when to stop - signs of effectiveness
17. LEGAL ASPECTS - present laws - present standards - Good Samaritan Act.
18. BASIC CPR CERTIFICATE - review - test - evaluation sheet returned to courthouse (address above)

THE LIFE YOU MAY SAVE COULD BE THAT OF A STRANGER, A LOVED ONE
OR A FRIEND.....


PHILIP M. JENKINS
Juvenile Court Traffic
Hearing Officer

THE SUPERIOR COURT
COUNTY OF FRESNO
FRESNO, CALIFORNIA 93721

PHILIP M. JENKINS
JUVENILE COURT TRAFFIC
HEARING OFFICER
ROOM 100, COURTHOUSE
TELEPHONE: 488-3619

"D.E.K."
DRIVER EDUCATION - THE "KEY"
sponsored by

FRESNO ADULT EDUCATION, DON MCCOLM, DIRECTOR, 4472 E. TULARE ST., PHONE 255-0479

Driver Education is truly the "KEY" to many, if not all, of the following items:

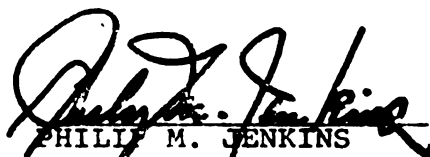
- | | |
|-------------------------------|-------------------------------------|
| 1. Driver survival | 6. Independence |
| 2. Fewer accidents | 7. A major and a necessary step in |
| 3. Fewer citations | obtaining your California Driver's |
| 4. Employment | license, if you are under 18 years. |
| 5. Minimum insurance premiums | |

Driver Education - the "KEY" is a full 30 hour course in Driver's Education as prescribed by the California State Department Education Guide. Offered in ten three hour evening sessions and conducted by an outstanding credentialed instructor, "DEK" could well be the foundation block for future safe, lawful and defensive driving. While the completion of this course would be valuable to ANY LICENSED driver, it will certify the minor under eighteen years of age for the next step in obtaining a driver's license; the six hour Driver Training Program.

"DEK" will involve guest speakers from law enforcement, the Courts and community traffic safety agencies. Field trips and traffic safety demonstrations are also planned. Instruction in Spanish language is available.

- REQUIREMENTS:
1. \$2.00 Unit Registration Fee paid directly to Fresno Adult Education at time of enrollment.
 2. Student provides note taking materials, ie., pen, pencil, notebook.
 3. Report promptly at each session (7:00 P.M.)
 4. Remain for full session unless prior permission for leaving is granted by Instructor.
 5. Completion of course.

PARENTS ARE WELCOME TO ATTEND AND OBSERVE. LICENSING COUNSELING AVAILABLE.


PHILIP M. JENKINS
JUVENILE COURT
TRAFFIC HEARING OFFICER

THE SUPERIOR COURT
COUNTY OF FRESNO
FRESNO, CALIFORNIA 93721

PHILIP M. JENKINS
JUVENILE COURT TRAFFIC
HEARING OFFICER
ROOM 100, COURTHOUSE
TELEPHONE: 488-3619

"DRIVING UNDER HAZARDOUS CONDITIONS"

A driver improvement course conducted by Fresno Adult Education.

As a young driver, you may have already met driving conditions requiring extreme caution and skill. In the years of driving to come, you may meet many more unexpected driving hazards. How you handle yourself under driving stress will in no small way determine whether or not you become a traffic accident victim.

"Driving Under Hazardous Conditions", a two evening course, will be instructed by an outstanding Defensive Driving Specialist. The course has been designed to help you become more aware - lack of driver attention to traffic laws, road conditions, the condition of your vehicle and defensive driving not only makes a driver "citation prone" but "accident prone" as well...a costly process in insurance premiums, traffic fines and often hospitalization.....

The Instructor obtained for this course will share his knowledge and expertise. He can only suggest proven ways in which YOU can avoid the accident awaiting you driving under hazardous conditions. Only YOU can prevent these accidents from happening. Applying what you may learn during these classroom sessions WILL help you to become a more safe, skillful lawful driver..... the dividends of the application are self evident.....

All sessions start promptly at 7:00 p.m. Bring note taking materials. Your parent is cordially invited to share this vital course on defensive driving as your guest. The instructor will invite your active participation by sharing your personal experiences concerning hazardous driving conditions. A Course Evaluation Sheet will be given you at the conclusion of the second evening. Return to the Court by mail with your comments and constructive criticism within five days following the course.

BASIC COURSE OUTLINE

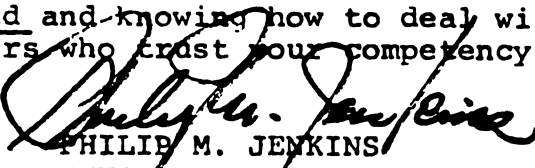
EMERGENCY DEFENSIVE DRIVING METHODS: Fog - Rain - Ice (black ice-frost) snow - heat - sun glare - on-coming headlights - wind - dust - sandstorms - falling debris - stalled vehicle ahead - livestock - deer area - road intersection approaches - emergency vehicle approach, front and rear - traffic signal failure.

EQUIPMENT FAILURE: brakes - lights - engine fire - tire blowout - steering - engine quitting - gas pedal sticking.

OTHER USERS OF THE ROAD: tailgaters - fast lane changers - fast stopping drivers ahead - slow drivers - trucks, buses and campers - motorcyclists - bicyclists (can you anticipate what they will do?) road repair equipment - pedestrians (do you see them?)

RECOMMENDED EMERGENCY EQUIPMENT: road flares (when and how to use) - chains - flashlight - first aid kit, etc. Personal responsibility in event of accident.

Anticipating the unexpected and knowing how to deal with it may save your life and the lives of your passengers who trust your competency as the driver.....


PHILIP M. JENKINS
JUVENILE TRAFFIC COURT HEARING OFFICER

THE SUPERIOR COURT
COUNTY OF FRESNO
FRESNO, CALIFORNIA 93721

PHILIP M. JENKINS
JUVENILE COURT TRAFFIC
HEARING OFFICER
ROOM 100, COURTHOUSE
TELEPHONE: 488-3619
Ct. Code: 10200

FRESNO D.W.I. PROGRAM - #DUI-10-001
Community Hospital - Fresno and S Sts.
Fresno, California

JUVENILE ALCOHOL EDUCATION SEMINAR - four sessions

NAME: _____ CITATION NUMBER: _____
ADDRESS: _____ BIRTHDATE: _____ PHONE: _____
DR. LIC. NO. _____ CVC SECTION VIOL: _____

Please read carefully. This is a court order and must be complied with.
You have been ordered to report to this Seminar on Alcohol Education.
The course will consist of 2 classes a week for 2 weeks, from 3:30 to 5:30 PM.

Your class dates are: _____. Tuition of \$25.00 must
be paid in full, at 3:15 PM the day of the first class. Partial payments
cannot be accepted. Failure to comply with this order may result in the im-
position of additional penalties.

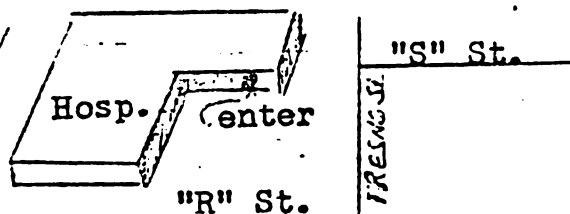
Parents of students assigned: There will be a short orientation meeting after
the first class from 5:30 to 6:00 PM in the class location. You are strongly
urged to attend so that the DWI staff can explain both the content and object-
ives of this vital motivating course.

MAJOR COURSE OBJECTIVES:

1. Use and abuse of Alcohol; legal aspects
2. Effects on human system, physically and psychologically
3. How to make better decisions within or separate from
peer group in respect to social pressures
4. Alternate "highs" to use of Alcohol

Evaluation Sheet of this course will be given you at the conclusion of the
last session. Complete at home and return to Court by mail. Your honest
opinion and constructive suggestions are welcomed.

Location: Fresno Community Hospital, Alcoholism Rehabilitation Center (ARC)
Fresno and "S" Streets, Large Conference Room (See map below). Classes start
promptly at times indicated. Sign each session attendance roster for credit.
Additional (private) juvenile-parental counseling available if requested.



Philip M. Jenkins
Philip M. Jenkins
Juvenile Traffic Court
Hearing Officer

Distribution: 2 copies DWI Staff
1 copy - Student

REMINDER

You have been assigned by the Court to the following program:

Name: D.W.I. for Juveniles

Description: This is an educational program designed to provide current information about: a) drinking driving behavior, b) the effects of alcohol on motor skills, c) the physiological and psychological effects of alcohol, d) the symptoms, nature and consequences of the illness called alcoholism.

Location: Fresno Community Hospital, Fresno and R Streets, Classroom (Suggestion:)

- 1) Park in employees parking lot on Divisidero and Thesta.
- 2) Enter through Emergency Room doors into hallway.
- 3) Follow signs to "D.W.I. School" taking elevator to third floor, Classroom 3A.

Schedule: Monday and Wednesday afternoons, the first two weeks of the month, from 3:30 to 5:00 P.M. Your class dates are: May 5, 7, 12, and 14th.

Registration: Course registration will be at 3:30 P.M., Monday, May 5, at the class.

Proof of Attendance: Make sure that you check in and that your attendance is recorded. You must attend all four sessions. Failure to attend one session will result in a return to court.

Payment: TUITION of \$20.00 must be paid, either the whole amount the first class session or \$5.00 each session.

Parent Orientation Meeting: For all parents of juveniles in the D.W.I. Program there will be a special short orientation meeting on Monday, May 5, from 5:00 to 5:30 in Classroom 3A in Fresno Community Hospital. Although this meeting is not a legal requirement, we would strongly urge you to attend so that we might explain both content and objectives of the Juvenile D.W.I. Course as well as get acquainted with one another.

BASIC MOTORCYCLE LAW

A COUNSELOR-STUDENT-PARENT PROGRAM OF INFORMATION SPONSORED BY
FRESNO ADULT EDUCATION 4472 E. Tulare Ave. Fresno, Calif.

STUDENT: This one evening course will help you become more aware of your responsibility and accountability to your parent and the laws that govern the operation of a motorcycle if you are unlicensed. It will be your awareness of the traffic laws and your attitude that will insure an accident free, citation free driving career.

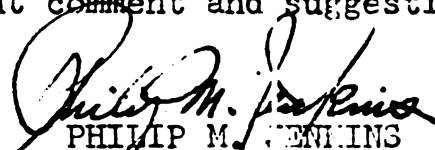
PARENT: You and only you - have the parental influence and control over the young unlicensed motorcycle (mini-bike) rider in your family. Where can he ride, what type of training does he need and what is motorcycle DEFENSIVE RIDING? The instructor will relate to the future license holders (Class III - IV) the importance of the traffic laws, city and county ordinances, and the responsibility of a driver's license. Parental financial liability will also be discussed.

OBJECTIVES AND GOALS OF THE PROGRAM

1. Off-street unlicensed operators - where to ride ?
2. Requirements for Class IV (motorcycle) license
3. Department of Motor Vehicles required registrations, fees and permits
4. City and County ordinances regarding motorcycling
5. Safe operation - what is "defensive riding" ?
6. Equipment safety - helmet, clothing, safety goggles etc.
7. Personal responsibility for one's own safety - passengers
8. Ways to prevent traffic citations

PROGRAM REQUIREMENTS

This one three hour evening class at Fresno Adult Education requires both student and one of his parents to be present. The class convenes promptly at 7:00 PM. The latest motorcycle safety films will be shown followed by class discussion and comment. The student must take a final test based upon the general information covered. Student must bring a PENCIL to class for use while taking the examination. Class Evaluation Sheets to be returned to the Court inviting student-parent comment and suggestions, will be distributed at conclusion of program.


PHILIP M. JENKINS
Juvenile Traffic Court Hearing Officer

The Supreme Court
County of Fresno
Fresno, California 93721

Philip M. Jenkins
Juvenile Court Traffic
Hearing Officer
Room 100, Courthouse
Telephone: 488-3619

MOTORCYCLE SAFETY DYNAMICS
Defensive riding = Survival

Sponsored by Fresno Adult Education, 4472 E. Tulare St., Fresno, Calif.
93702 - Phone: 441-3372

Program Advisors: Officer John Heering, Fresno City Police Dept., Instructor
Armon Deurmier, Assistant Professor, Health Science
in charge of Safety Instruction, C.S.U.F.
Don McColm, Director, Fresno Adult Education

A traffic law enforcement-student program designed to improve the motorcycle operator's knowledge, skill and defensive riding ability. In-depth studies will be made into the laws, safety dynamics and the proper operation of a motorcycle. Special emphasis will be placed on the danger of the use of drugs or alcohol while operating a vehicle.

OBJECTIVES AND GOALS OF THE PROGRAM

1. To identify and eliminate unsafe driving habits
2. Increase awareness of traffic law enforcement responsibility
3. Review and discuss citations received by class members
4. Build positive attitudes for safe motorcycle operation and equipment (safety helmets, etc.) usage
5. Increase parental knowledge of safe motorcycling and personal liability in respect to student's license or permit
6. Provide positive but informal contact with Traffic Law Enforcement representatives
7. Determine negative and dangerous effects of drugs and alcohol revelant to motorcycle operation
8. To determine need of proper and adequate insurance coverage
9. Recommended survival procedures in heavy traffic or operating under hazardous weather or dangerous road conditions
10. Verification of student's license classification (Permit - Class IV.)
11. Testing to determine student knowledge growth at completion of course
12. Courtesy vehicle safety-inspection demonstration
13. Accident Emergency Response, first aid and legal responsibilities

PROGRAM REQUIREMENTS

This five evening safety course is designed for both student knowledge and parental interest and participation. The latest motorcycle safety films will be shown for student discussion and evaluation. Class Evaluation Sheets inviting student-parent comment will be distributed at close of program and returned to the Court. All classes start promptly at 7:00 PM. Notebooks and pen/pencil required. Attendance Roster and final grades returned to the Court for proper entry and credit on court order. Adult Education Coures fee: \$2.00 (paid on enrollment, first night).

Philip M. Jenkins, Jevenile Court
Traffic Hearing Officer

THE SUPERIOR COURT
COUNTY OF FRESNO
FRESNO, CALIFORNIA 93721

FRESNO COUNTY JUVENILE TRAFFIC COURT

"THE PRICE OF DEATH"

PHILIP M. JENKINS
JUVENILE COURT TRAFFIC
HEARING OFFICER
ROOM 100, COURTHOUSE
TELEPHONE: 488-3619

A "SAFE-D" (STUDENT AWARD FOR EXCELLENCE IN DRIVING) PROJECT

Death is inevitable, traffic deaths are not; they are preventable. The cost nationwide is in the tens of millions of dollars. The grief and heartache to one family losing a loved one, cannot be measured.

Your mission is to determine what the financial costs are and what preparation must be made regarding the death of just one traffic victim in your community.

The sources of information for your report will require you to personally interview representatives of the following agencies who have volunteered to assist you:

1. Ambulance Service: Transportation and emergency treatment.
2. Hospital Service: Victim is received via ambulance. Cite costs of care and preparation for removal to mortuary.
3. Mortuary: A funeral director of your choice at his place of business.
4. Cemetery: Final interment costs.

Respect the nature of the establishments and the people willing to share their knowledge with you, their business is of deep concern and care for the families needing such services; take as little of their time as is possible.

The Court expresses appreciation to your parent who has volunteered to accompany you. Without his or her willingness to do so, you would not be assigned to this project.

Your report of not less than 1,000 words, is to be clearly written or typed and placed in a suitable folder. You must list your sources of information and have them sign the "Resource Summary Sheet" attached. The report must be reviewed and approved by your parent before it is submitted. Be sure the report has your name and address on it to assure you credit. Your last page should contain any of your ideas as to how to reduce traffic fatalities. Your report will be forwarded to the "Price of Death" Committee for further study.


PHILIP M. JENKINS
JUVENILE TRAFFIC COURT
HEARING OFFICER

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APR 11

The following could happen to a friend, a loved one or you. Sadly, it is happening every day on our nation's streets, roads and highways. It is commonly known as a "Traffic Fatality". It happens to pedestrians, bicyclists, motorcyclists, passengers in cars and the drivers of those cars. It does not respect race, color, creed, age of victim or social status. Only you and I can prevent it from happening.....

Your assignment shall be to determine the financial cost of just ONE traffic fatality. You cannot measure the emotional price paid by a parent at the loss of their son or daughter; you can measure the financial obligation of the parent in respect to such a tragedy.

The information you are to obtain regarding the cost on are as follows:
(The types of injury noted are well known to ambulance operators and Emergency Ward Doctors. Medical terms need not be used in describing the injury.)

AS DETERMINED BY THE AMBULANCE AGENCY

1. The body is pinned behind the wheel of the car and the person is unconscious. There is bleeding from the nose and mouth and breathing is rapid and shallow.
2. As the person is extricated from the badly damaged car, it is determined the person is in severe shock. It is now evident that there is a compound fracture of the right arm and left leg, with head injuries.

WHAT COSTS WILL BE CHARGED BY THE AMBULANCE AGENCY AS IT SPEEDS THIS TRAFFIC VICTIM TO THE HOSPITAL IN AN ATTEMPT TO SAVE HIS LIFE? (List services rendered and their costs.)

HOSPITAL COSTS WHERE THE TRAFFIC VICTIM IS TAKEN

1. Using the same injury criteria as above, but adding fractured skull and punctured left lung, determine cost of Emergency Room service, Intensive care service for three days. Include cost of X-rays, laboratory tests, operating room, anesthetic, casts, medical and surgical supplies, inhalation therapy and drugs.

Although the full forces of medical science were brought to bear, the patient dies.....

NET TOTAL COSTS CHARGED BY THE HOSPITAL

COSTS DETERMINED BY THE MORTUARY WHERE THE DECEASED IS TAKEN

1. It is up to you now, perhaps as a friend, brother or sister of a loved one to select the type of service and the cost of that service for the deceased. This will involve many responsibilities and choices as the funeral director will point out. List those services and their costs. (Your concern for this traffic victim should be the same as if you were arranging services for a member of your family.)

COSTS DETERMINED BY THE CEMETERY OR CREMATORIUM

1. Services will vary here as they do with the type of funeral service you select. Cemetery administrators will provide this information for your consideration. List the cost of services you select for final interment.

TOTAL COSTS BY CATEGORY -----ONE PARENT REQUESTED TO BE PRESENT DURING INTERVIEW
(Doctor's fees not included or required for this report.)

July 1977
PRICE OF DEATH COMMITTEE

101

Howard Kauffman - Project Coordinator Lisle Funeral Home Phone 266-0666

Call for an appointment BEFORE you visit these businesses: (Parent must be present)

AMBULANCE SERVICES:

Courtesy Ambulance John Wilshire - John Frey	2966 E McKinley Mailing Address P.O. Box 415	485-9550	93708	Fresno
Clovis Ambulance Carl Holland	1308 Clovis Avenue	299-0411	93612	Clovis
Jones Ambulance Mike Delany- Ron Rideout	1202 N. Fresno St.	233-4136	93701	Fresno
American Ambulance Mr. James Kauffman	245 N. Broadway	442-1531	93701	Fresno

HOSPITAL SERVICES:

Valley Medical Center Ms. Carolyn Tanaka	445 N. Cedar Outpatient Services	453-4000 Ex 5730	93702	Fresno
Community Hospital Charles Sant'Agata	Fresno & R P.R. Director	442-6000	93728	Fresno
St. Agnes Hospital Mary Mehling - Bob Heller	1303 E. Herndon	431-5000 Ex 265	93612	Fresno
Clovis Memorial Hospital Mr. Phyllis Withrow	88 N. De Witt	298-8041	93612	Clovis
Valley Childrens Doug Woods - Public Relations	3151 N. Millbrook	227-2961	93703	Fresno

Funeral Services:

Fresno Funeral Chapel Charles Hall - Steven Smith	1136 "A" St.	233-1174	92706	Fresno
Gooding Funeral Home Mr. Felix Sterling.	1146 "B" St. (Negro)	266-9711	92706	Fresno
Lisle Funeral Home Howard Kauffman, Director	1605 "L" St.	266-0666	93721	Fresno
Pain Funeral Service Miss Sonnen	2983 Tulare St.	233-7267	93721	Fresno
Stephens & Bean Mr. Sanford Morton	202 N. Teilman	268-9292	93706	Fresno
Clovis Funeral Home Mr. Dan Martin - Mgr.	1302 Clovis Ave.	298-7536	93612	Clovis
Our's Colonial Chapel Mr. Art Buchheim D. Skeahan	1762 Van Ness Ave.	485-0231	93721	Fresno

CHURCH SERVICES: (CONTINUED)

Tinkler Mission Chapel Mr. James Copner - Mrs Judy Copner	475 N. Broadway	233-2101	Fresno	93704
Whitehurst Manchester William Whitehurst - Patricia Nigg	1525 E. Saginaw Way	227-4048	Fresno	93704
Vost & Webb Funeral Home Mr. WILLARD Phipps	1002 "T" St.	237-4147	Fresno	93721
Boice Funeral Home Mr. Brad Bradford, Mgr.	308 Pollasky	299-4372	Clovis	93612
Wallin & Son Funeral Home Charles O. Wallin - Charles M. Wallin	1624 Ninth St.	875-6555	Sanger	93657

CEMETERY SERVICES:

Ararat Cemetery Mike Garabedian Jr. Mgr.	446 Blackstone	233-4081	Fresno	93701
Belmont Memorial Park Mollie Lawler Pat Watson	201 N. Teilman	237-6185	Fresno	93706
Chapel of Light Keith Hargrave - Herbert Hargrave	1620 W. Belmont	233-6254	Fresno	93706
St. Peter's Cemetery Collins Osburn - Aima Regan	264 N. Blythe	485-6422	Fresno	93706
Fresno Memorial Gardens Mr. Harnish - Mildred Shaffer - Vera Hansen	175 N. Cornelia	268-7823	Fresno	93706
Ac. View Cemetery Mr. Betty Brown	1411 W. Belmont	233-3327	Fresno	93706
Clovis Cemetery Del Morris - Donna Gallenkamp	4305 E. Herndon	299-6057	Clovis	93612

THE SUPERIOR COURT
COUNTY OF FRESNO
FRESNO, CALIFORNIA 93721

RESOURCE SUMMARY

of

"PRICE OF DEATH"

(This form must be completed and returned with report.)

NAME OF MINOR	ADDRESS	DATE OF COMPLETION

AMBULANCE AGENCY	REPRESENTATIVE'S SIGNATURE	DATE

HOSPITAL	REPRESENTATIVE'S SIGNATURE	DATE

FUNERAL HOME	REPRESENTATIVE'S SIGNATURE	DATE

CEMETERY OR CREMATORIUM	REPRESENTATIVE'S SIGNATURE	DATE

REPORT APPROVED BY PARENT	SIGNATURE	DATE

COMMENT: _____

REVIEWED BY PROJECT COORDINATOR	SIGNATURE	DATE

COMMENT: _____

APPROVED BY COURT	DATE

COMMENT: _____

The COUNSELOR-PARENT Program of Improved Defensive Driving
Review for JUVENILES (P.D.R.J.)

To the PARENT You are still the most vital influence upon the driving attitude and skills of your minor driver. We of the Defensive Driving Program will strive to impart to your minor driver the safest and most skillfull techniques for safe defensive driving. The following program will attempt to expand and improve those driving techniques so greatly needed for good defensive driving.

To the MINOR DRIVER Please accept the sincere desire of your parent and the counselor to assist you to improve and advance your driving techniques so that you and others may live to enjoy safe and citation-free driving upon the public roads of this nation. Also, please keep in mind that it will take THOUSANDS of miles of careful driving to really master the techniques of skillful defensive driving.

OBJECTIVES OF THIS PROGRAM

- I. Provide three sessions of three hours each in discussion of defensive driving techniques and some simulation testing as follows:
 - A. Correct or improve the understanding of: speed limits, reaction time and distance for total stopping distances, emotional conditions affecting driving and the function of traffic law enforcement.
 - B. Improve the following skills by the introduction of the Bauer "Skil-Safe" method of:
 1. Approaching and safely going through intersections.
Six people were killed, others seriously injured during a 3-week period in the sping of 1976 because of no apparent safe plan of approaching controlled intersections and not knowing what a GREEN LIGHT and YELLOW LIGHT after a green light really meant.
 2. Safe method of making right and various left turns (Legal in every state).
 3. Safe and Defensive Steps for taking curves including an emergency procedure.
 4. Improved and early reaction of defensive freeway tactics frequently omitted by many adult drivers.
- II. Provide four to six hours of parental supervised driving experience to improve the above techniques presented to the group. The more practice sessions - the better chance of success and staying alive.
- III. Encourage the minor drive and the parent to discuss and share in defensive and efficient driving.
- IV. To help maintain the lowest possible insurance rates available only by skillful defensive driving (free of any collision and traffic citations).

INSTRUCTIONS

- I. Minor AND parent are each to complete a double-section enrollment card prior to the first meeting. Bring cards to first meeting.
- II. Meetings start promptly at 7:00 p.m.
- III. Minors, please bring pencil and paper for taking some short notes.

Know which school you are to attend (Circle one) McLANE - HOOVER

- I. Prompt and full attendance, displaying an attitude of willingness to improve at each of the three (3) meetings.
- II. A passing score (no more than 10 errors) on a written test covering defensive driving techniques and Vehicle Code.
- III. Completed Driver Evaluation Form for the four to six hours of parental supervised defensive driving practice using the water test for all drives.
- IV. A brief written statement (1/2 page) on major improvements in your defensive driving techniques. This may include hoped-for accomplishments.
- V. The course Evaluation Letter Form must be sent to Mr. P. M. Jenkins within seven (7) days after the last meeting.
- VI. If Items I through IV above are satisfactorily completed, the minor will have completed the requirements. If a minor misses a session or does not satisfactorily complete the requirements, excluding Item V, Mr. Jenkins will decide the future disposition of the minor's problem.

We, the Juvenile Traffic Court Hearing Office, Director of Adult Education and the Defensive Driving Counselor, appreciate and compliment you for desiring to improve your driving skills. Please notify us in the future of those techniques found to be most helpful and where suggestions for improvement in the program might be made.

Philip M. Jenkins

Philip M. Jenkins
Juvenile Traffic Court
Hearing Officer

Donald L. McColm

Donald L. McColm, Director
Fresno Adult School
Fresno Unified School District

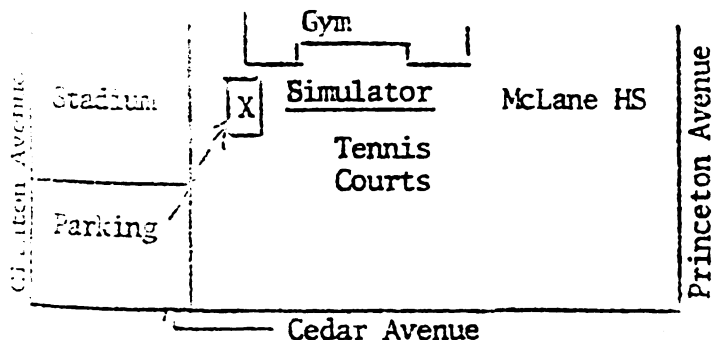
Ron Bauer

Ron Bauer, Counselor
Defensive Driving Teacher
Fresno Unified School District
(Developer of Method Techniques)

MAPS TO the Vehicle Information, Decision and Action Center (Simulator) are given below for McLane and Hoover High Schools.

McLane High School

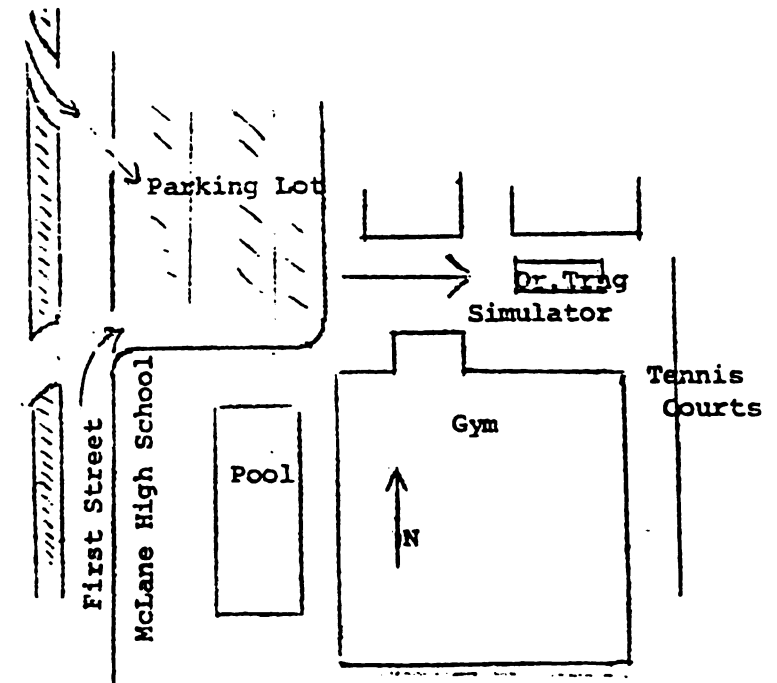
3721 North Cedar Avenue
(Cedar & Clinton Avenues)



No left turn

Hoover High School

5550 North First Street
(About 5 blocks north of Fashion Fair)



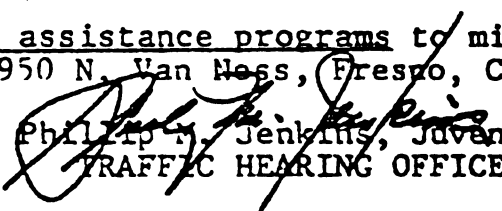
"The ERROR of youth is to believe that intelligence is a substitute for experience, while the ERROR of age is to believe that experience is a substitute for intelligence.

Lyman Bryson

"SGT. SAL MOSQUEDA FOUNDATION"
Licensing Workshop Project

This community-based volunteer project held at Sal Mosqueda Community Center at Butler & Maple, Fresno, California has the following purpose and objectives.

1. To provide information and assistance to the unlicensed minor and his parent, regarding the California driver-licensing laws. Bi-lingual instruction is available as needed.
2. Reason and purpose for driver-licensing laws.
3. Requirements for minors under eighteen years of age.
4. Parental obligation and financial responsibility.
5. Insurance requirements.
6. Consequences of driving without a license.
 - a. Court penalties.
 - b. Department of Motor Vehicles penalties.
 - c. Possibility of Juvenile Court Record.
 - d. Vulnerability to accidents, costs-damage-insurance.
7. Driver Education and Training Program - public and private.
 - a. Where are they available?
 - b. How to enroll.
 - c. Cost, if public school programs not available.
 - d. Benefits of proper driver training.
8. Junior Driving Permits - What are they?
 - a. What evidence is needed before the Department of Motor Vehicles can consider such applications?
 - b. What are the limitations of a Driving Permit?
9. Community concern and traffic law enforcement action regarding the unlicensed driver.
10. Review of Driver Improvement programs available FOLLOWING issuance of Driver's license.
11. Foundation counseling and assistance programs to minors and parents (486-8400) 950 N. Van Ness, Fresno, Calif.


Philip M. Jenkins, Juvenile Court
TRAFFIC HEARING OFFICER

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COURSE C

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SAFE-PACE DRIVER EDUCATION CENTER, INC.

424 WEST OLIVE AVENUE
FRESNO, CALIFORNIA 93728

TELEPHONE: (209) 486-1622



TRAFFIC ACCIDENT PREVENTION DEFENSIVE DRIVING SEMINAR

Accredited by the Department of Motor Vehicles

OBJECTIVES AND GOALS OF ONE DAY CLASS

To save lives, public and personal losses, caused by unsafe driving.

Registration: 8:15 a.m.

COURSE CONTENT:

Pre-Test

1. THREE MAJOR ERRORS OF MOST EXPERIENCED DRIVERS
Correcting those errors.
2. DANGERS OF INCORRECT SPEED
Speed exercises.
3. SPACE CUSHION
Maintaining space.
Time study.
Time test.
4. SIGNS AND SIGNALS
Reading and reacting to all Traffic Controls.
5. EMOTIONS - HOW THEY AFFECT THE DRIVER
6. RIGHT-OF-WAY
7. SEEING DEFENSIVELY
8. NEW LAWS AND VEHICLE CODE CHANGES
9. ALCOHOL, DRUGS AND THE AUTO
10. EXPLANATION OF POINT COUNT
11. DRIVING RECORD
How long kept.
Access to record.
12. CONDITION OF VEHICLE

Re-Test

A Certificate will be issued on satisfactory completion of ONE DAY SEMINAR

COST: \$15.00 (Additional family member \$10.00)

NOTE: Pre-registration is requested for other members of the family wishing to attend. Late registrations may be turned away.

TIME INVOLVED: 8 Hours.



SAFE-PACE DRIVER EDUCATION CENTER, INC.

424 WEST OLIVE AVENUE
FRESNO, CALIFORNIA 93728
TELEPHONE: (209) 486-1622

**T. E. C. (TEST, EVALUATE & COUNSEL)**

This Course was developed through the need to find the under-lying causes of Bad Driving Performance. (Knowing and doing are not the same.)

TEST - Actual Behind-the-Wheel demonstration of the driving skill of the individual in their own vehicle (with a parent accompanying in the case of a minor, only). Includes heavy traffic and freeway driving.

EVALUATE - Driver will be given a report showing the rating of his driving performance during the Test. (Copy of Test results sent to the Court.)

COUNSEL - Recommendations of Techniques, Skills and Habits to be developed and included in driving to improve performance and reduce the possibility of Citations, Collisions and/or Fatalities.

TIME INVOLVED - 1½ Hours.

COST - \$20.00



THE SUPERIOR COURT
COUNTY OF FRESNO
FRESNO, CALIFORNIA 93721

PHILIP M. JENKINS
JUVENILE COURT TRAFFIC
HEARING OFFICER
ROOM 100, COURTHOUSE
TELEPHONE: 488 3619

"TRAFFIC SAFETY DYNAMICS"

conducted by:

FRESNO ADULT EDUCATION
4472 East Tulare Avenue

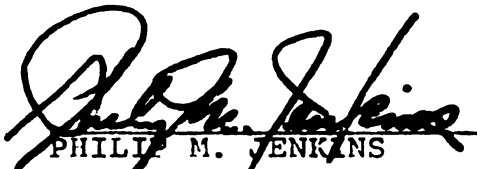
The Fresno County Juvenile Traffic Court has assigned you to this special "Driver Improvement Course" to improve driving habits and aid in your knowledge of man made and nature's laws regarding traffic safety. Special emphasis will be placed on driver attitude.

This course will include the following:

1. Pre-test to gauge present knowledge of traffic laws (natural and man made).
2. Review citation received by class members (voluntary).
3. Vehicle Laws - California Vehicle Code.
4. Natural laws affecting vehicles (gravity, centrifugal force, force of impact, kinetic energy and friction).
5. Effects of alcohol and drugs on driving (penalties: fines, insurance premiums and incarceration).
6. Visitation of Department of Motor Vehicles' Driver Improvement Analyst (D.I.A. responsibilities and functions).
7. Visitation by Traffic Enforcement Officer (Law enforcement viewpoints - discussion).
8. Selected relevant attitudinal films.
9. Defensive Driving Techniques.
10. Post - test to determine student knowledge growth.

Classes begin promptly at 7:00 p.m. Late assignees will not be admitted to class. Attendance Rosters returned to assigning Court. Bring note taking material. Know in which school district you reside. Parents are welcome and cordially invited to participate.

"TRAFFIC SAFETY IS EVERYONE'S BUSINESS!"


PHILIP M. JENKINS
JUVENILE TRAFFIC COURT
HEARING OFFICER

APPENDIX B

LETTER FROM THE FRESNO COUNTY SUPERIOR COURT

Superior Court
DEPARTMENT EIGHT
FRESNO, CALIFORNIA 93721

Frank J. Creede, Jr.
Judge

July 20, 1977

Mr. Armon Deurmier
5860 East Ramona Avenue
Fresno, California 93727

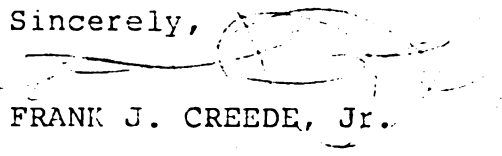
Dear Mr. Deurmier:

I have discussed with Mr. Jenkins your request to utilize the driver improvement participants of the various Fresno County Juvenile Traffic Court's Driver Improvement Instructional Programs as subjects in your research study. I understand your study involves establishing the effectiveness of our various instructional programs using the "Mann Inventory."

We feel this study and the procedures you plan to use are acceptable. Mr. Jenkins, the Juvenile Traffic Court Hearing Officer, will aid you as much as possible.

We know you understand you are to explain your study to and secure permission from each of the involved instructors.

Sincerely,


FRANK J. CREEDE, Jr.

FJC:fl
CC:
Dr. Sandford Brown
Health Science Dept.
C.S.U.F.
Maple at Shaw Avenues
Fresno, CA 93740

Dr. C. Dean Mitchell
Dean of Div. of Health Professions
C.S.U.F.
Maple at Shaw Avenues
Fresno, CA 93740

Dr. Donald Smith
Traffic Safety Center
Kellogg Center
East Lansing, Michigan 48824

Instructors at Fresno Adult Education

APPENDIX C
INFORMED CONSENT FROM

INFORMED CONSENT FORM

I, _____, hereby willingly give my consent to allow my son/daughter to participate in the research project: Evaluation of The Fresno County Juvenile Traffic Court's Driver Improvement Programs.

I am aware of all of the following conditions:

1. All information is to remain confidential.
2. My son/daughter will remain anonymous.
3. After the information is compiled the questionnaires will be destroyed.
4. I have the right to withdraw my son/daughter from the study at anytime without prejudice or penalty.
5. Fresno County Juvenile Court has given permission for this study to be conducted.
6. Permission has been obtained from the participants instructors for his students to participate in the study.

DATE: _____

SIGNATURE: _____

FORMA DE PERMISO INFORMADO

Yo, _____, por este medio de buena voluntad doy mi permiso para mi hijo/hija participar en el proyecto de investigación: Evaluación del Programa de Mejoramiento de Choferes del Corte de Tráfico de Juveniles en el Condado de Fresno. Estoy consciente de las siguientes condiciones:

1. Toda la información estará confidencial.
2. Mi hijo/hija quedará anónimo.
3. Despues que la información sea compilado, los cuestionarios serán destruidos.
4. Tengo el derecho retirar mi hijo/hija del estudio a cualquier momento sin prejuicio o multa.
5. El Corte de Juveniles del Condado de Fresno ha dado permiso para que este estudio sea confidencial.
6. Permiso ha sido obtenido de los profesores de los participantes que sus estudiantes participan en este estudio.
7. Los procediminetos para este investigación ha sido aprobado por La Comité Sobre Participación de Sujetos Humanos de la Universidad de Educación situado en la Universidad del Estado de Michigan, East Lansing, Michigan.

FECHA: _____

FIRMA: _____

APPENDIX D

THE MANN INVENTORY

PLEASE NOTE:

Copyrighted materials in this document have not been filmed at the request of the author. They are available for consultation, however, in the author's university library.

These consist of pages:

Pages 113-119

Pages 126-132

**University
Microfilms
International**

300 N. ZEEB RD., ANN ARBOR, MI 48106 (313) 761-4700

PERSONAL ATTITUDE SURVEY

NAME _____ AGE _____ SEX _____ MONTH'S DRIVING
EXPERIENCE _____

The following statements reflect your attitude and feelings about yourself and your relations to others. There are no right or wrong answers. Fill in on the answer sheet the answer that reflects your feelings the best.

Do not mark on the test booklet:

A. always B. usually C. sometimes D. rarely E. never

1. I like (liked) to take part in organized extra-curricular activities in school.
2. Young people are much better drivers than middle-aged people.
3. Policemen are sincere in enforcing the laws.
4. My parents are reasonable in their relations with me.
5. My community is a happy place to live.
6. I put off until tomorrow things I should do today.
7. I like to daydream while I am driving.
8. I feel full of pep when I get behind the wheel.
9. I live in a home that is happy.
10. If I see a police officer when I am driving I am more careful.
11. Over-careful drivers cause more accidents than the so-called reckless ones.

12. I enjoy being out late at night and sleeping mornings.
13. I get a feeling of real power when driving a car.
14. Courses in school are set up to meet the needs and interest of the student.
15. I am concerned about the way my clothes look.
16. Slow drivers should be kept off the highways.
17. All young people should be required to take a course in driver education.
18. Unsafe drivers should be deprived of the right to drive.
19. Accident don't just happen; they are caused.
20. I like to get everything out of a car that it has in it.
21. The chief work of most policemen should be traffic control.
22. My parents exert too much control over me.
23. The people in my community want the traffic laws enforced.
24. I have been tempted to cheat on a test at school.
25. I get impatient when driving in heavy traffic.
26. There are times when it seems like everyone is against me.
27. Old, defective cars should be kept off the road.
28. Drivers should be given more freedom in obeying traffic signs.
29. People should drive when they are angry.
30. Passing on hills and curves is exceedingly dangerous.
31. It is necessary to stop at "stop" signs if no other cars are in sight.

32. I like to put extras on my car to attract attention.
33. I am good at talking the police out of giving me a traffic ticket.
34. Strong discipline in practice makes a better team.
35. I am (was) popular with most of the kids in my class.
36. Cops are rougher on teen-agers than on adults.
37. Teachers want to help students with their problems.
38. My father gets traffic tickets for moving violations.
39. I have as good table manners at home as when I eat out.
40. I have been wrong in an argument but wouldn't admit it to my opponent.
41. The school should have the right to question the way I drive.
42. I like to razz the team when it is losing.
43. I am proud of my reputation in the community.
44. I am considered a friendly person.
45. I like most of my school work.
46. Our family spends a great deal of time together.
47. Attitudes toward driving are more important than ability to handle the car.
48. I like to take chances when I'm driving.
49. Traffic laws are set up to promote safety.
50. Courtesy toward other drivers is important.
51. I like a great deal of freedom.
52. I don't mind being told what to do.

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53. My grades in school are (were) a good indication of my ability.
54. I sometimes become concerned about what other people think of me.
55. I find that older people tend to be too bossy.
56. I feel somewhat nervous when I drive a car.
57. I think courtesy towards others is a good reflection of a person's character.
58. I get more fun out of driving a car than in any other activity.
59. The police are only trying to do the job for which they were hired.
60. My folks insist that I spend most week-day evenings at home.
61. I am considered a reliable person.
62. I like to help a person who is in trouble.
63. I am more courteous than the average driver.

How do you feel about answering these questions?
(Write on back of answer sheet)

ESTUDIO DEL ACTITUD PERSONAL

NOMBRE _____ EDAD _____ SEXO _____ VECES DE EXPERIENCIA
MANEJANDO _____

Las siguientes declaraciones reflexione su actitud y sentimientos acerca de Usted y sus relaciones con otros. No hay ningún propio ni incorrecto respuesta. Escribe su respuesta en el papel de contestación la que reflexione sus sentimientos la mejor que todos.

No marca el librito de examen:

A. Siempre B. Generalmente C. A Veces D. Raras Veces E. Nunca

1. Me gusta (gustaba) participar en las programas de estudio suplementarias que son organizados en la escuela.
2. Jovenes son un poco más mejor como manejadores que personas de edad madura.
3. Las policías son sinceros cuando hacen cumplir la ley.
4. Mis padres son justos en sus relaciones conmigo.
5. Mi comunidad es un lugar feliz en que vivir.
6. Cosas que debo hacer hoy, los postpono hasta mañana.
7. Me gusta sonar cuando manejo el carro.
8. Me siento lleno de energia cuando estoy detrás del volante.
9. Vivo en una casa feliz.
10. Si veo la policía cuando estoy manejando, tengo más cuidado.
11. Los choferes que tienen mucho cuidado causan mas accidentes que los que se llaman descuidadosos.
12. Me gusta andar fuera ya tarde y dormir por la mañana.
13. Consigo un sentimiento de poder cuando manejo un carro.

14. Clases en la escuela son erijidos para que los necesidades e interés del estudiante sean satisfechos.
15. Estoy preocupado con la manera mi vestido se ve.
16. Choferes desgraciosos deben estar descarriados de la carretera.
17. Todos los jovenes deben ser requeridos en tomar un clase en educación de tráfico.
18. Choferes peligrosos deben tener su derecho para manejar quitado.
19. Accidentes apenas no ocurren; son causados.
20. Me gusta obtener todo lo que puedo de un automóvil.
21. El trabajo principal de la mayoría de la policía debe ser controlando el tráfico.
22. Mis padres se esfuerzan demasiado mando sobre mí.
23. Personas en mi comunidad quieren que las leyes de tráfico sean enforzados.
24. He estado tentado a engañar en un examen en la escuela.
25. Llego impaciente cuando manejo en tráfico congestionado.
26. A veces me parece que todo el mundo esta en contraste conmigo.
27. Automóviles que son viejos y defectos deben ser desviados.
28. Choferes deben ser regalados más libertad en obedeciendo signos de tráfico.
29. La gente debe manejar cuando sean enojados.
30. Paseando carros en los collados y en las curvas es bastante peligroso.
31. Es necesario pararse en los signos de parar si no hay otros automóviles en vista.
32. Me gusta estaviar mi carro para llamar atención.
33. Tengo la habilidad de disuadir la policía en dandome un billete de tráfico.
34. Firme disciplina en práctica hace mejor cooperación.
35. Soy (Estuve) popular con la mayoría de los chicos en mi clase.
36. Las policías son mas bruscos con adolescentes que adultos.
37. Profesores quieren ayudar los estudiantes con sus problemas.
38. Mi padre recibe billetes de tráfico para violaciones de movimiento.

39. Tengo maneras de mesa tan mejor en casa como en restaurante.
40. He sido equivocado en un argumento pero no lo concederé a mi adversario.
41. La escuela debe tener el derecho para cuestionar como manejo.
42. Me gusta travesiar el grupo cuando está perdiendo.
43. Soy orgulloso de mi reputación en la comunidad.
44. Soy considerado una persona amistosa.
45. Me gusta la mayor parte de mi trabajo hecho en clase.
46. Mi familia gasta mucho tiempo con juntos.
47. Actitudes hacia manejando un carro son mas importantes que la habilidad de conducir el automóvil.
48. Me gusta correr un riesgo (aventurarme) cuando estoy manejando.
49. Las leyes de tráfico son erijidos para promover seguridad.
50. Cortesía hacia otros manejadores es importante.
51. Me gusta mucho un poco de libertad.
52. No tengo inconveniente en estar contado lo que debo hacer.
53. Mis grados en la escuela son (fueron) un buen indicación de mi capacidad.
54. A veces me concierno por lo que otras personas piensan de mi.
55. Encuentro que personas mayores son mandones.
56. Siento un poco nervioso cuando manejo un carro.
57. Pienso que cortesía hacia otras es un buen reflexión de la carácter de una persona.
58. Obtengo mas diversión en manejando un carro que algún otra actividad.
59. La policía solamente esta tratando de hacer el trabajo en que fueron empleados.
60. Mis padres insisten en que paso la mayor parte de mis noches del día de trabajo en casa.
61. Estoy considerado como una persona puntual.
62. Me gusta ayudar una persona que esta en un aprieto (apuro).
63. Soy mas cortés que el chofer promedio.

¿Cómo sienta Usted acerca de contestar estas preguntas?
(Escribe en el trasado del papel de respuesta)

APPENDIX E

AGGRESSIVE AND CONSTRICTIVE SCALE KEY

Aggressive¹²⁰

10 or more miles

PERSONAL ATTITUDE SURVEY
ANSWER SHEET

NAME						AGE	SEX					MONTH'S DRIVING EXPERIENCE					
	A	B	C	D	E		A	B	C	D	E		A	B	C	D	E
1.	()	()	(~~2~~)	(~~4~~)	(~~5~~)	19.	()	()	()	()	()	37.	()	()	()	()	()
2.	()	()	()	()	()	20.	()	()	()	()	()	38.	()	()	()	()	()
3.	()	(~~2~~)	(~~3~~)	(~~3~~)	(~~4~~)	21.	()	()	()	()	()	39.	()	()	()	()	()
4.	()	()	()	()	()	22.	()	()	()	()	()	40.	()	()	(~~4~~)	()	()
5.	()	()	()	()	()	23.	()	()	()	()	()	41.	()	()	()	()	()
6.	()	()	()	()	()	24.	(~~4~~)	()	()	()	()	42.	(~~4~~)	(~~4~~)	(~~4~~)	()	()
7.	()	()	()	()	()	25.	()	()	()	()	()	43.	()	()	(~~4~~)	(~~4~~)	(~~4~~)
8.	()	()	()	()	()	26.	()	()	()	()	()	44.	()	()	(~~4~~)	()	()
9.	()	(~~4~~)	()	()	()	27.	()	()	()	()	()	45.	()	()	()	()	()
10.	()	()	()	()	()	28.	()	()	()	()	()	46.	()	()	()	()	()
11.	()	()	(~~4~~)	()	()	29.	()	()	()	(~~4~~)	()	47.	()	()	(~~4~~)	(~~4~~)	(~~4~~)
12.	()	()	()	()	()	30.	()	()	()	()	()	48.	(~~4~~)	(~~4~~)	(~~4~~)	(~~4~~)	()
13.	()	()	()	()	()	31.	()	()	()	()	()	49.	()	()	()	()	()
14.	()	()	()	()	()	32.	()	()	()	()	()	50.	()	(~~4~~)	(~~4~~)	(~~4~~)	(~~4~~)
15.	()	()	()	()	()	33.	(~~4~~)	(~~4~~)	(~~4~~)	(~~4~~)	()	51.	()	()	()	()	()
16.	(~~4~~)	(~~4~~)	()	()	()	34.	()	()	()	()	()	52.	()	()	()	()	()
17.	()	()	()	()	()	35.	()	()	()	()	()	53.	()	()	()	()	()
18.	()	()	(~~4~~)	(~~4~~)	(~~4~~)	36.	()	()	()	()	()	54.	()	()	(~~4~~)	()	()

35. () ()

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- | | A | B | C | D | E |
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| 56. | () | () | () | () | () |
| 57. | () | () | () | () | () |
| 58. | () | () | () | () | () |
| 59. | () | () | () | () | () |
| 60. | () | () | () | () | () |
| 61. | () | () | () | () | () |
| 62. | () | () | () | () | () |
| 63. | () | () | () | () | () |

How do you feel about answering these questions?
(write on back of answer sheet)

APPENDIX F
SAMPLE ANSWER SHEET

CITY

GRADE

TEST

III

ΔΙ

STANDARD ANSWER SHEET

[illegible]

PRINT YOUR NAME IN THE BOXES PROVIDED. THEN
BLACKEN THE LETTER BOX BELOW WHICH MATCHES
EACH LETTER IN YOUR NAME.

YOUR LAST NAME

YOUR FIRST NAME _____

Insty Progr & M

FORM OF Referec THIS TEST Count										SEMESTER Pre Pass										TEACHER ONLY: STUDENT ABSENT FOR PART:																			
After Count										After Count										After Count																			
Pre Test 1										Pre Test 2										Pre Test 3																			
Student 1										Student 2										Student 3																			
BIRTH DATE										BIRTH DATE										BIRTH DATE																			
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APPENDIX G
LETTER OF INSTRUCTIONS

TO: Research Project Personnel

FROM: Armon Deurmier

Purpose of this study is to determine how effective our driver improvement educational programs are at modifying the juvenile traffic offenders driving behavior.

It is, therefore, very important that the Mann Inventory pre-survey is given before instruction begins and that the post-survey be given during the last 30 minutes of the final instructional session.

After the students have completed the survey, place the answer sheets in the enclosed self addressed stamped envelope and mail it to Professor Armon Deurmier, Health Science Department, California State University, Fresno, Cedar at Shaw, Fresno, California 93740.

APPENDIX H

ANSWERS TO FINAL QUESTION OF THE MANN INVENTORY

Answers to Final Questions on Mann Inventory

1. I don't mind.
2. The type of answers could be changed.
3. Some of the questions had nothing to do with driving, but you must have had a good reason to put them in. On question 60, my folks do not insist, for I am married; 62—I like to help people who are troubled, but it depends what kind of trouble.
4. I enjoyed taking this test and feel it is a worth while effort, and understanding how young people feel about the laws and driving.
5. It does not bother me when I am asked personal questions. I feel a survey like this is both profitable for you and the community so that they can see for themselves what most drivers are like on the road.
6. I don't mind at all, but I'm late for school because of it.
7. Question 24 tempted but never have.
8. This is my first ticket.
9. I thought some of them were difficult to answer, and some were ridiculous to answer.
10. It depends on the person who takes the test and I feel that the test was worth while.
11. I didn't mind except some of them were stupid.
12. I don't mind answering these questions, I think that it is good for you to know these things about me before I enroll in the class.
13. Well there's a lot of good questions and some bad. It's sort of like a drivers test.
14. I think your mother could influence your driving as much as your father (question 38).
15. No really strongly one way or another. If it aids in helping you achieve a substantial survey that may some how be of some benefit to others, then I'm more than happy in expending my time to help others.
16. I feel that my answers were truthful and I see no harm in participating in this test.

17. I didn't mind at all. Some of the points risen out of this questionnaire are very interesting. Because I do feel very strongly that the way policeman treat teenagers.
18. It did not bother me to answer these questions, it was kind of fun. But your questions aren't plain enough a lot of your questions hang to do with consenquiness.(sic).
19. It was ok, But on some of the questions you can't explain how you feel.
20. I think the test is very good because helps give people a good idea on how teenagers feel about driving and how they react towards each other and how they think.
21. It's ok.
22. It doesn't really bother me to answer the questions. Some of the questions made me stop and think about them before I could answer them honestly.
23. Some of the questions stuck me as funny, but most of the questions were pretty good. I don't mind answering questions.
24. It did not bother me to answer these questions. It help me to know different things about myself.
25. I don't mind doing it. If it just isn't so boring.
26. I don't mind to much, it was really nothing.
27. I don't really feel bad about answering these questions, because I think it's best for me to do so for what I have done to get me in these troubles.
28. Alright but kind of shy.
29. They don't bother me because I know you wouldn't ask them if you didn't need the information. I don't drive.
30. I feel it worthy to my time, and it was a good inside approach to my thought and driving.
31. My reaction to the test wasn't all for the best, some of the questions had no relation to driving such as my eating habits, also not all red cars should be taken off the roads. Other than this I didn't mind taking it.
32. I thought it was interesting answering stupid questions.
33. It's a personality test. I'm taking psychology in school and enjoy it.

34. I do not drive as yet, so I skipped those questions.
35. Answering these questions really didn't matter to me at all. I just hope they helped you in someway.
36. The test was a very good test and it was not very hard and the test had very important questions in it and I must remember that when I am driving.
37. It doesn't bother me at all because I am mostly telling the truth.
38. I don't mind it.
39. I don't mind doing it. But some of the questions don't have anything to do with a ticket and most of the questions aren't what I would expect in this test. But some of them are dumb and some of them can't be answered by the answer you give me.
40. I can see the significance of some of the questions but not of others. A couple of questions could have been eliminated. Good luck with your survey.
41. I don't like the answer sheet. Very hard to distinguish between lines, also could check wrong numbered line due to this.
42. I think it was a interesting survey. It would be neat to see what some of the answers other kids write.
43. I can truthfully say I answered the questions honestly.
44. Honestly I think some of your questions are pretty off the wall, perhaps you should or could write a test concerned mainly with operating a vehicle. But overall, I think you have a good idea.
45. I think this survey was a very good idea. Because it might help in the understanding of the problems of juvenile drivers.
46. I don't mind, I know the law wants to know how we feel about things and I think the law has the right to know.
47. I don't mind. If I can help in any way for the future. I am always willing to do my part.
48. I feel that it is good to find out how people feel about driving and other things.
49. I hate it.
50. I don't mind answering these questions. If it is in fact to improve driver and traffic safety, then I'm all for it. Anything to lower the number of deaths that are caused by careless driving.

51. It's all right but confusing having only limited answers and answers across instead of up and down.
52. I cannot see why they could possibly be of any other use than depriving the taxpayers of more of their money.
53. I don't care if you ask me questions about driving because I don't usually drive. I don't have a license.
54. These questions didn't bother me in answering them. There were some questions that I have never dealt with and required some thought. They revealed little insight to me about the kind of person that I am.
55. As you read and think about the questions, it make you think about ways you might still improve your attitudes and your driving habits. If my contribution is in add to your study I am glad to have donated my thoughts and time (sic).
56. I think its a good idea for the people who want to do it.
57. I thought it was fun because I like to answer questions about driving and also it gets me to think more about safe driving.
58. I thought the questions were stupid. What does strong discipline in practice makes a better team got to do with anything that has to do with driving.
59. I think it is all right if it helps, but if it doesn't, then I just wasted my time.
60. I feel like a fool who has been asked to promote myself and I do not like a bit of this survey, the questions are meaningless and not reasonable, but I don't mind it that much.
61. I think some of the questions don't have a thing to do about driving.
62. I really don't understand why I have to do this test but I don't mind because it really made me stop to think about myself, my family and the things and people that are around me.
63. Some of the questions were too general and I don't really see how you could use them in a study. I answered many in a way they could be taken to mean even though I know it's not what you meant, so have fun with your research and good luck.
64. It didn't bother me answer the questions. I hope it helps in your survey.
65. I don't mind answering the questions. I do feel that some of them could have been answered better with more explicit answers.

66. It doesn't really matter because sometimes its good to find out things.
67. Oops! I wrote on the wrong paper, but I did read the directions.
68. I feel happy to help you with your study.
69. I don't mind doing questionnaires to help out people who are trying to help us drivers out with all the programs available for us.
70. I feel that I have answered them to the best of my ability. It hasn't offended me in any way.
71. I hope it helps. Who ever is making the survey.
72. I have answered the same type of questions. I don't mind; I guess the questions show what kind of habits good or bad and what kind of person you really are.
73. I feel that the questions were too personal and also that some were very unnecessary.
74. I don't mind. I will like to see the results of survey though just to see what the average of people like me is.
75. Some of the questions were hard to answer with always, usually, etc.
76. It ok like helping with the evaluation (sic).
77. Will feel that it is necessary to answer these questions because I think that I made a mess out of everything.
78. A lot of them don't make too much sense and aren't too well worded but I have answered them about as accurately as possible with the selection of answers given to me.
79. I didn't mind answering. Like to help.
80. As I answered the following questions I was thinking how all the questions tied into one certain area. I had to think for a minute on a lot of the questions because I couldn't make up my mind on how I felt toward a lot questions. I did answer all the questions honestly.
81. The questions are fair to ask but only if they are answered truthfully. Then you will be able to do the survey better if that is what you are after. False answers would be pretty hard to judge.

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82. I feel these questions will help you become a better driver in the future and they should conduct more of these survey through the country.
83. These questions are fairly informative to the people asking them but only knowing a person and hearing why he might of done something will give you the true picture.
84. I don't mind. You just want to know how I feel about driving and other things. The test just shows how I feel.
85. It was an inconvenience to answer these questions, but I guess you need them for your survey. I try to be a good driver--you make me feel like a hood.
86. I didn't mind answering them; they some times repeat themselves. About 2 weeks ago I answered a private survey much like this one.
87. I thought it was a good test. It was not hard to read and it got you to think about yourself.
88. I think that some of these questions were stupid. But otherwise it was a pretty good survey.
89. I think that it is a pretty good experience to me. I don't mind it. It gives me some thing to do.
90. Absolutely suspicious. Like you trying to classify me from what you collect from the results.
91. In response to questions. I don't spend many weekday evenings at home because I have a part time job at night. I don't work I stay home.
92. It doesn't bother me too much.
93. If answering these questions will help them I'm all for it. And that is why I did the questionnaire. If this is just a big force and isn't going to help the class wasted are time for nothing then I think it was dumb (sic).
94. I think this important or they wouldn't have been asked.
95. The question sound all right.
96. It's foolish. The questions seem to be meaningless and less you know scinely it ask of you (sic).
97. It was a great experience.
98. I do not mind.

99. I didn't think it was bad. In fact, I kind of enjoyed it.
100. It was ok test (sic).
101. I feel that some of the questions I shouldn't have to answer, because I have the right not to unless I don't I answer all of them anyway. Some time I do get scared when I see a police officer (sic).
102. I think some of the questions are stupid and when I got the test the mail, I was told by my father that I did not have to do it and would not have if it had not been in this class and for some the way of answering was stupid as well (sic).
103. My hand feel sore, but the're alright.
104. It is ok with me.
105. They were fair questions. Easy to answer.
106. I really don't care about answering the questions because they don't hurt me or make me say anything that I don't want to.
107. I don't mind answering them but I feel some of them don't relate to this class.
108. I think that the questions are not valid enough to make any statements about the person who takes the test.
109. I feel that they were getting to personal on some of the questions. But otherwise, the survey was all right.
110. I don't like answering the questions. What I think and feel is my business and mine alone.
111. I have no feelings in answering these questions.

APPENDIX I
INDEPENDENT "t" TEST

The "t" test depends upon a single parameter, known as the number of degrees of freedom. For the present situation, the number of degrees of freedom is one less than the sample size. The graph of the "t" test resembles the graph of the standard normal "z" distribution: They are both symmetric, bell-shaped curves with mean equal to zero. The graph of the "t" test, however, is lower at the center and higher at the extremities than the standard normal curve. These differences are more pronounced when the number of degrees of freedom is small; as the number of degrees of freedom increases, the graph of the "t" distribution resembles the standard normal curve more and more. For "infinite" degrees of freedom (more than 120, the largest value in the table) percentage points of the "t"-distribution are equal to those of the normal distribution. For a moderately large number of degrees of freedom, the "t" test is practically indistinguishable from the standard normal "z" test.

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