# THE DEVELOPMENT AND VALIDATION OF COMPETENCIES FOR TRAFFIC SAFETY EDUCATION TEACHERS OF WASHINGTON STATE

A Dissertation for the Degree of Ph. D. MICHIGAN STATE UNIVERSITY Ronald W. Hales 1975



This is to certify that the

thesis entitled

The Development and Validation of Competencies for Traffic Safety Education Teachers of Washington State

presented by

Ronald W. Hales

has been accepted towards fulfillment of the requirements for

Doctor of Philosophy degree in Secondary Education and Curriculum

Robert & Gustopon Major professor

Date August 28, 1975

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#### ABSTRACT

# THE DEVELOPMENT AND VALIDATION OF COMPETENCIES FOR TRAFFIC SAFETY EDUCATION TEACHERS OF WASHINGTON STATE

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#### Ronald W. Hales

#### PURPOSE OF THE STUDY

The writer's purpose of this study was to develop and validate an extensive list of cognitive and psychomotor competency statements for teachers of traffic safety education of the state of Washington. Once determined, the competency statements would provide a guideline for institutions of higher education in the development and/or re-development of curriculum for pre-service and in-service teachers. The Washington State Superintendent of Public Instruction would have a basis for revising criteria used in certifying teachers. Performance-based teacher education and certification could become a reality as traffic safety education would be able to meet the intent of the 1971 Guidelines and Standards which called for a competency approach to teacher education.

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#### METHODS OF PROCEDURE

The list of competency statements was developed following a survey of related literature in both general education and driver education. The writer discussed the areas of accountability, competency-based teacher education, and similar types of studies. In driver education, a historical review was made concerning the preparation and certification recommendations in the United States as well as for the state of Washington. The study of related literature included materials from pamphlets, periodicals, dissertations, course outlines, textbooks, curriculum guides and research studies. Major sources for development of the list of competency statements were:

- 1) HumRRO "Guide for Teacher Preparation in Driver Education," National Highway Traffic Safety Administration, U.S. Department of Transportation, November 1971, Draft Copy.
- 2) Illinois State University, "Driver Education Teacher Competencies," Dr. Laurance Quane, Project Director, 1974.
- 3) North Carolina State Board of Education, "Competency Education and Assessment for Driver and Traffic Safety Education," 1972.
- 4) Utah State Board of Education, "Driver Education Competencies," July 1973.

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Traffic Safety Education Consortium, "Proposed Competencies for Beginning Teachers of Traffic Safety Education," Central Washington State College, Washington State, May 1974.

A jury and a panel of raters from Washington State were used to assist in the development, validation and selection of the competency statements.

#### MAJOR FINDINGS

The following major findings were noted:

- 1) Of the list of 211 competency statements submitted to the panel of raters, 188 or 89 percnet had a mean of 4.0 or greater. These were automatically accepted as being essential.
- 2) No statements were considered by the panel of raters as being unessential with mean scores between 1.0 and 2.0.
- 3) Twenty-three competency statements or 11 percent had mean scores between 2.10 and 3.99. These were considered questionable and were carefully reviewed for possible acceptance or non acceptance. Six (3 percent) of the questionable statements were accepted while 17 (8

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- percent) were found to be unacceptable according to a predetermined criteria and were not included in the final list.
- 4) One hundred ninety-four competency statements (92 percent) of the original 211
  were accepted as being essential for
  traffic safety education instructors in
  Washington State.
- 5) The highest group mean score for any of the seven categories was found to be 4.56 for Personal Driving Performance. The lowest group mean score was recorded by Category I, Safety Education/Accident Prevention (4.10).
- 6) Within the sub-categories, on-street competencies received the highest mean score (4.54) with traffic simulation and classroom both receiving the lowest ratings (4.27).
- 7) Some speciality groups recorded lower mean scores more frequently than others.

  The support agencies group had the lowest mean score for Curriculum Development (III) and Instructional Competencies (IV) categories. This could be attributed

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to lack of direct contact with the traffic safety education program. Administrators had low mean scores on categories V (Administrative Competencies) and VI (School/Community Relations).

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# THE DEVELOPMENT AND VALIDATION OF COMPETENCIES FOR TRAFFIC SAFETY EDUCATION TEACHERS OF WASHINGTON STATE

Ву

Ronald W. Hales

#### A DISSERTATION

Submitted to
Michigan State University
in partial fulfillment of the requirements
for the degree of

DOCTOR OF PHILOSOPHY

Department of Secondary Education and Curriculum

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#### **ACKNOWLEDGMENTS**

The writer wishes to express his appreciation to Dr. Robert E. Gustafson, who, as Guidance Committee Chairman, provided counsel and assistance during this study. He also wishes to extend his appreciation to Dr. Donald L. Smith, Dr. Joseph Dzenowagis and Dr. William A. Mann for their time, effort and advice.

A special note of thanks is given to the Washington State Supervisors of traffic safety education who acted as jury members and provided great assistance in the development of the competency statements. Also, appriciation is expressed to the members of the rater panel for their help in completing the study.

The writer also wishes to express his appreciation to his parents, Mr. and Mrs. Herbert Hales and Mr. and Mrs. LaMar Whyte, for their encouragement, support and assistance during the graduate program.

Finally, a special appreciation is extended to a dear sweet wife, Kathryn, for her devotion, love, continual encouragement and support throughout the graduate program. Also, the writer wishes to acknowledge his wonderful children, Bobby, Karen, Julianne, Elaine

and the one socramy sacrifices
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and the one soon to arrive for their support, love and many sacrifices they had to make while their daddy was away from them.

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#### CHAPTER I

#### THE PROBLEM

#### STATEMENT OF THE PROBLEM

Since 1968 traffic safety education teachers in Washington State have been prepared and certified following the completion of a pre-determined number of course credits. Little emphasis has been placed upon the use of performance objectives as a means of determining teacher competency.

The identification of teacher competencies is a growing trend in the United States today. Parents, students and legislators are among those concerned with the relevancy of school curriculum and are advocating some form of accountability as a means of proving that education is worthwhile and really helping the student to learn and prepare for his future role in society. 1

Speaking on the theme of accountability, President Nixon in a message to Congress in March, 1970 said:

Willis Tucker, "Accountability: Who Owes What To Whom?" The Education Digest (April, 1972), pp. 34-36.

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He also went on

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<sup>3&</sup>lt;sub>Ibid.</sub>

<sup>4</sup> Ibid.

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as we get more education for the dollar, we will ask the congress to supply many more dollars for education. 2

He also went on to say:

School administrators and school teachers alike are responsible for their performance, and it is in their interest as well as the interests of pupils that they be held accountable.<sup>3</sup>

President Nixon's justification for accountability was that the concept might help to preserve and enhance local control. For if the concept is ignored there will prevail national standards.<sup>4</sup>

To meet the demands of accountability, a number of states have passed legislation requiring competency-based teacher education programs. No longer will the completion of course credit be the major determining factor in whether or not a candidate is certified to teach in the public schools. The future teacher seeking certification or teachers currently in the field seeking a renewal of their certification will now be asked to

Robert E. Roush, Dale E. Bratten, Caroline Grillin, "Accountability in Education: A Priority for the 70's," Education (September/October, 1971), Vol. 92, No. 1, p. 113.

<sup>&</sup>lt;sup>3</sup>Ibid., p. 114.

<sup>4</sup>Ibid.

<sup>&</sup>lt;sup>5</sup>Alfred P. Wilson, William W. Curtis, "The State Mandate: Performance-Based Teacher Education," Phi Delta Kappan (Sept. 1973), p. 76.

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demonstrate proficiency in the performance of measurable tasks deemed necessary for successful teaching.

Leaders in the driver and traffic safety education profession have also expressed concern over teacher preparation and accountability.

Dr. Gerald R. Wallace, speaking to a California Driver Education Association conference, expressed the concern for the need for quality teachers in driver education programs. He said that teachers must be competent, well prepared, and capable of providing experiences for the student which would enable him to make wise decisions and change his behavior. He went on to say that the qualified teacher is competent in all areas of classroom and laboratory experience and feels the responsibility for curriculum development. It can't be done by someone who has had one or two courses. 6

Dr. Kaywood in discussing the accountability trend in driver education indicated that the worth of driver education will be shown by the quality of instruction.

This will come about only through the efforts of teachers who are well prepared, dedicated, enthusiastic and apply

Gerald R. Wallace, "A Quality Program for Driver Education," California Journal of Traffic Safety Education (June, 1969), p. 15.

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<sup>7</sup> Richar Commal of Tra-

<sup>8</sup> Dr. T. ducation," Journal 1972), p. 11

the best available teaching techniques and curricula in an effort to accomplish the goals of driver education.<sup>7</sup>

Dr. Seals also discussed the needs and reasons for accountability in driver education. He expressed the concern that driver educators must be able to demonstrate their worth before the federal agencies place the program in proper perspective. In addition, he said that driver education teachers are accountable to the students who enroll in the course and to the taxpayers through selected and appointed public officials.

In 1973 a survey of state departments of education was conducted by Dr. Quane at Illinois State University to determine in what manner each was moving or had committed itself to competency-based education. Of the fifty states that were contacted, thirty-four responded to the three questions that were asked:

- 1) Is your state moving toward a performance based credentialling procedure?
- 2) Are the institutions of higher learning moving towards a program which deals with the basic competencies of teaching driver education and performance of these as a basis for courses? If so, how?

Richard Kaywood, "The Worth of Driver Education," Journal of Traffic Safety Education (October, 1972), Editorial Comment, p. 14.

<sup>&</sup>lt;sup>8</sup>Dr. Thomas A. Seals, "Accountability in Driver Education," <u>Journal of Traffic Safety Education</u> (July, 1972), p. 11.

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9 Dr. W. Surpetencies W. Vaterial, 1974

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10 Ibid.

3) What is the commitment for the future of your state concerning this topic?<sup>9</sup>

In response to question 1, twenty-two states answered that they were moving in the direction of a performance-based credentialling procedure. Twelve responded that they were not.

In response to question 2, fifteen states responded that the institutions of higher education were moving in this direction.

In response to question 3, thirteen stated that they were fully committed; six indicated that they were committed, but did not supply details. The following were those that were fully committed: Florida, Indiana, Oregon, Maryland, New Hampshire, Minnesota, Missouri, Ohio, Utah, Virginia, Washington and West Virginia.

Those that were committed but lacked details were:
Alaska, California, Texas, Idaho, Kansas, and Kentucky. 10

The state of Washington, seeking to meet the demands of accountability adopted new <u>Guideline and Standards for the Development and Approval of Programs of Preparation Leading to the Certification of School Professional Personnel</u> in July 1971. In these standards the

<sup>9</sup>Dr. W. Laurance Quane, "Driver Education Teacher Competencies," Illinois State University, Unpublished Material. 1974.

<sup>10&</sup>lt;sub>Ibid</sub>.

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id Standards Preparation state was concerned with ensuring that viable working relations existed between the colleges, the professional education associations and school districts, and that preparation experiences provided by them be relevant to competence on-the-job and be related to the actual world of the elementary or secondary school student and to the changing needs of society. These agencies must share the responsibility in developing a performance-based curriculum in which competencies are identified and the candidate is required to demonstrate his ability to perform as cutlined in course objectives. These objectives must be student centered and written in a form that can be measured. 11

Currently, the preparation of traffic safety education teachers in Washington State is the ity of the three state colleges. Although some attempts have been made to unify the curriculum among the institutions, there still exists many differences on what is being taught even within courses that may carry the same title.

Although some work has been done, there exists no acceptable list of teacher competencies within the state of Washington that could be used as a guide for the preparation, certification, and re-certification of traffic safety education teachers.

<sup>11</sup>Washington State Board of Education, Guidelines and Standards for the Development and Approval of Programs of Preparation Leading to the Certification of School Professional Personnel (July 9, 1971).

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It is for this reason that the writer recognized the need to develop an extensive list of cognitive and psychomotor competencies for traffic safety education teachers of the state of Washington. Once available, the competencies could be used as a basis for the preparation, evaluation and certification of both pre-service and inservice teachers. No attempt was made to develop and validate competency statements in the affective domain. Although recognized by the writer as to their extreme importance in traffic safety education, it was decided that only competency statements in the psychomotor and cognitive domain's would be developed for the following reasons:

- 1) Limited research in this area to provide basis for development.
- 2) Difficulty in measuring competency statements that might be developed.
- 3) Frequent overlapping between competencies in affective and other two domains.
- 4) Too broad a scope to adequately cover in a study of this nature.

#### PURPOSE OF THE STUDY

The writer's purpose in this study was to develop

and validate an extensive list of cognitive and psychomotor

Competency statements for teachers of traffic safety

education of the state of Washington. As a result of this

study, Washington State colleges that are currently involved

in the preparat would have spec to guide develo miform guidel: institutions of would be avail instruction to certification performance wo traffic safety to previously.

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in the preparation of traffic safety education teachers would have specific cognitive and psychomotor statements to guide development and/or re-development of the curriculum for pre-service and in-service education. A uniform guideline would at last be available to all institutions of higher education. In addition, information would be available to the State Superintendent of Public Instruction to assist in revising the criteria for the certification of traffic safety education teachers. No longer would there need to be emphasis on course credit as a verification of competency. Measurable statements of performance would be the basis for certification. Finally, traffic safety education would now be able to meet the intent of the Washington State Board of Education when they adopted the 1971 Guidelines and Standards as referred to previously.

#### OVERVIEW OF PROCEDURES USED IN THE STUDY

The completion of this study required that an extensive review of materials be made to determine the knowledges and skills considered important. Following this review, the writer combined, added to, made deletions from and expanded upon the knowledges and skills in order to formulate a list of behaviorally written competency statements. These statements were then placed into major groupings according to relationship. The

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listing of competency statements was then sent to a group of jurors who were to judge the accuracy and relevancy of the material presented to determine content validity and perform an initial pilot test.

As used in this study, relevancy refers to each statement as a description of a skill or knowledge needed by traffic safety education teachers. It also has reference to a close association between the competency statement and the potential for success as a teacher of traffic safety education. The accuracy of each statement refers to a clear and accurate description of a competency that might be needed by traffic safety education teachers.

Also, it should agree with a known truth or fact.

After making revisions based upon information received from the jurors, the competency statements were then sent to a panel of raters. Seven speciality areas were represented in the panel. The raters were asked to rank the competency statements on a five choice scale ranging from unessential (one), unimportant (two), neither important or unimportant (three), important (four), to essential (five). The instrument was then returned to the writer.

The mean scores for each group and for all groups
Combined were determined and used as a criteria for final
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results indicated those competency statements that were considered by the raters as being essential for traffic safety education teachers in the state of Washington.

All members of the jury as well as all members of the panel of raters were selected from the state of Washington. The reason no other state was represented is due to the unique program of traffic safety education that currently exists in Washington.

Recent changes in program standards along with the innovative approaches in curriculum development have elevated the state of Washington into a leadership position. The program is a performance-based individualized approach to teaching driver and traffic safety education. There are no time restrictions such as 30 hours of classroom instruction and 6 hours of laboratory instruction as found in all other states. Completion of the course is dependent upon the students' ability to perform specific competencies as described in performance objectives.

Since this study is concerned with the competencies needed by traffic safety education teachers in Washington State, and due to the fact that no other state has developed this type of program, it was felt that only Persons residing in the state and having worked in its development or having some knowledge about the program

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12 Ameri icies and Gu cation (wash should be involved in the judging or rating of the competency statements of those persons who will be certified to teach in it.

#### **DEFINITION OF TERMS**

Accuracy: Criteria used by the judges to assess the importance of the competency statements. The judges were to consider the following questions: Is the statement a clear and accurate description of a competency that might be needed by traffic safety education teachers? Does it agree with a known truth or fact?

Classroom Phase: That portion of the traffic safety education course based in a classroom environment which is characterized by students working individually or in groups under the direction of a teacher or teachers. 12

Competency Statement: A statement describing a particular behavior or function that a traffic safety education teacher would be expected to perform or have knowledge of related to successful teaching.

Jurors: Individuals from the state of Washington selected because of their expertise in traffic safety education to judge the relevancy and accuracy of the

American Driver and Traffic Safety Education, Policies and Guidelines for Driver and Traffic Safety Education (Washington D.C., 1974), p. vii.

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13<sub>Ibid</sub>

competency statements. All currently work as supervisors of traffic safety education.

Laboratory Phase: That portion of a traffic safety course covering motor vehicle operation under real or simulated conditions, characterized by students learning experiences arising from use of electronic driving simulation equipment, and off-street multiple-car driving range, and/or on-street driving practice in a dual controlled car under the direction of a teacher. 13

Panel of Raters: Individuals from the state of
Washington selected to rate the competency statements who
come from the following speciality groups: Curriculum
Workship Team, Washington Traffic Safety Education
Association, Executive Board, Public School Administrators,
Traffic Safety Education Program Coordinators, Undergraduate College Students, Traffic Safety Support Agencies,
and Traffic Safety Education College Instructors. They
rated the competency statements using a scale of from 1-5
ranging from unessential to essential.

Relevancy: Criteria used by the judges to assess the importance of each competency statement. In doing so they used the following questions to guide their decisions:

Is this a competency that might be needed by traffic

<sup>13&</sup>lt;sub>Ibid</sub>.

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safety education teachers? Is there a close association between the competency statement and the potential for success as a teacher of traffic safety education?

Teacher Competency: The ability to perform or to execute in a satisfactory manner a particular behavior or function related to effective student learning. 14

Traffic Safety Education: An accredited course of instruction in traffic safety education in Washington State which consists of classroom instruction, laboratory instruction, and observation time. Laboratory instruction would include on-street, driving range, or simulation experience or some combination thereof. 15

Traffic Safety Education Teacher: A certified public school teacher who teaches traffic safety education in both classroom and/or laboratory settings. 16

#### ASSUMPTIONS

This study is based on the assumption that there are specific types of competencies that all teachers of traffic safety education should be able to perform in order to be certified by the Washington State Superintendent of Public Instruction. In addition, the study is

<sup>&</sup>lt;sup>14</sup>Ibid., p. ix.

<sup>15</sup>Washington State Superintendent of Public Instruction, Traffic Safety Education Administrative Manual (September, 1974), p. C-1.

<sup>16</sup> Ibid.

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based on the assumption that competency statements can be developed from course outlines, driver education materials, research reports, publications, textbooks and from state projects that are known to be developing performance-based teacher education programs and be validated by the use of expert jurors and a panel of raters judging the content of the statements. It was also assumed that the responses given by both the jury and the raters were honest and no attempt was made to falsify their answers.

#### ORGANIZATION OF THE STUDY

In Chapter I was discussed the need, purpose for and the procedures used in developing a list of competencies for traffic safety education teachers in Washington State. After completion, the competencies could be used for purposes of developing guidelines for preparation, evaluation and certification. In addition, definition of terms and the basic assumptions were also presented.

In Chapter II a review of related literature dealing with the preparation of driver education teachers nationwide and in the state of Washington will be presented. The accountability movement in education and driver education and the implication it has on competency-based teacher education and certification will also be discussed. In addition, the program changes that have evolved in Washington State in traffic safety education

In Char of raters will or not accepte. be presented.

The last major findings discussion sections

The primary concentration is growing concentration of the state of teachers was contentrated for the state of the s

An over definition of presented.

as well as the certification standards which have lead to a need for change will also be mentioned.

In the third chapter the process used in developing the instrument and analyzing the data will be presented.

In Chapter IV the selections made by the panel of raters will be analyzed. Those statements accepted or not accepted as well as the average mean scores will be presented.

The last chapter will contain a summary of the major findings, conclusions, recommendations and a discussion section.

#### SUMMARY

The problem of accountability and the trend that is growing concerning the identification of teacher competencies and the movement toward performance-based teacher preparation and certification was discussed. The need for changes in teacher preparation and certification in the state of Washington for traffic safety education teachers was considered.

An overview of the procedures used in the study, a definition of terms and the basic assumptions were also presented.

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#### CHAPTER II

#### REVIEW OF LITERATURE

The review of literature revealed several areas of importance to the development of competencies for traffic safety education teachers. These areas are classified into a historical overview of the preparation and certification of driver education teachers, accountability in general education and driver education, competency-based teacher education in general education and driver education similar types of studies both in general education and in driver education, and a historical review of the preparation and certification requirements of Washington.

HISTORICAL OVERVIEW OF THE PREPARATION AND CERTIFICATION OF DRIVER EDUCATION TEACHERS

Ever since the inception of driver education there has been concern with the preparation of teachers and the inclusion of programs within colleges and universities in the United States. Generally, the pattern

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of teacher preparation that has become accepted has been in conformance with time-based courses offered by other disciplines. 17

During the early days of driver education, courses offered for the preparation of teachers consisted of short one-to-two week workshops in safety and driver education. In 1933, shortly after the beginning of driver education, expansion was urged, but the going was slow because few teachers were prepared to do the job. 18

By the mid 1930's officials of two organizations, The American Automobile Association and the Association of Casualty and Surety Companies, recognized the need to prepare driver education teachers and used members of their field staffs to teach workshops and concentrated courses. The programs usually were held on college campuses and included preparation in classroom and practice driving instruction. 19

As interest grew among high school students, the need became even greater to prepare teachers in this new discipline.

<sup>17</sup> Dr. Thomas A. Seals, "Competency-Based Preparation and Certification for Driver Education Teachers,"
National Safety Congress Transactions, School and College Division, National Safety Council, Vol. 23, 1973, p. 15.

<sup>18</sup> Herbert Stack, <u>History of Driver Education in</u>
the United States (National Commission on Safety Education, 1966), p. 27.

<sup>&</sup>lt;sup>19</sup>Ibid., pp. 27-28.

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Prior to 1949, few colleges or universities offered courses for the preparation of driver education teachers. Following the recommendations of the President's Highway Safety conference and the National Conference on High School Driver Education held at Jackson's Mill, West Virginia, progress was made in course development. The first courses offered were two or three semester hour credit classes in general safety education. 20

By 1953, over 250 colleges were offering some 600 courses in safety education and driver education. <sup>21</sup> As of 1975, the number of colleges has grown to 424 offering some 2,820 courses. <sup>22</sup>

In spite of this tremendous growth, courses were time-based with little emphasis on performance as a basis of course completion.

### Early Certification Requirements

Early teachers were not required to have special certification requirements for teaching driver education.

<sup>&</sup>lt;sup>20</sup>Ibid., p. 27.

<sup>&</sup>lt;sup>21</sup>Ibid., p. 28.

National Safety Council, 1975-76 College and University Safety Courses, College and University Section, National Safety Council, May, 1975.

It was felt specific cer This stantiated b Nathaniel O. Hartman indi states that ! preparation : It wi Conference or Was expressed certification and as indica dation that s certification of providing

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It was felt that this could be taught by anyone and a specific certificate was not necessary. 23

This lack of certification requirements was substantiated by a survey that was conducted in 1940 by Nathaniel O. Schneider. In reference to this study, Hartman indicated that the survey reported only five states that had any requirements pertaining to teacher preparation in safety education. 24

It was not until 1949 at the first National Conference on High School Driver Education that concern was expressed regarding special requirements for the certification of teachers. This concern was very minimal and as indicated by Hartman, appeared only as a recommendation that state education departments and state teacher certification agencies ". . . explore the possibilities of providing for certification of driver education teachers." 25

Also in 1949, Herbert Stack, then the director for the New York University Center for Safety Education, upon completion of a survey regarding certification requirements in safety and driver education in eighteen

<sup>23</sup>Charles Hartman, "Teacher Preparation Programs in Driver Education in Colleges and Universities in the United States," unpublished dissertation, Michigan State University, 1961, p. 26.

<sup>&</sup>lt;sup>24</sup>Ibid., p. 25.

<sup>25&</sup>lt;sub>Ibid</sub>.

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selected states was quoted by Hartman as having expressed the following concern for driver education. He said:

. . . since most teachers are expected to provide instruction in general safety through existing subjects, it is to be questioned whether certification in general education is desirable. An effective procedure would be to include as a required subject in teacher preparing institutions a one, two, or three semester hour course in general safety education. In the case of High School Driver Education, however, the need calls clearly for the establishment of some type of special approval or certification. 26

With these bits of encouragement, early leaders in driver education strived to establish minimum requirements for teachers that would be acceptable by colleges and universities. The result was that states adopted certification standards based upon one, two or three time-based courses as minimum requirements for the preparation and certification of teachers. They were encouraged to take more than the minimum, but as is usually the case, the minimum became the maximum. 27

Progress was slow and even by 1961 only 67% of the states had speciality requirements. Nine states were reported to have had no requirements for certification to teach high school driver education. 28

<sup>26&</sup>lt;sub>Ibid</sub>.

<sup>&</sup>lt;sup>27</sup>Seals, op. cit., p. 15.

<sup>28&</sup>lt;sub>Hartman, op. cit., pp. 82-83.</sub>

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Trends among universities and colleges have been toward the addition of more required courses at the undergraduate and graduate level. More courses may be helpful to the competence level of teachers, however, no study has been made which demonstrates that there is a positive correlation between the number of successfully completed courses and the level of performance exhibited in the high school classroom or laboratory. 29

In regards to this concern, Seals posed several questions regarding the efficiency of requiring a set number of courses as a means of assuring teacher competency. He asked, "How much duplication of content exists among courses? Can duplication of content be justified as reinforcement of learning? What percentage of content has already been mastered by what percentage of the future teachers? Will repetition of content already mastered reduce the enthusiasm of learners? What are the relationships between course content and the actual functions of on-the-job driver education teachers?" 30

His contention was that additional courses are nice except that the above questions are difficult to answer, unless revamping of the curriculum takes place

<sup>&</sup>lt;sup>29</sup>Seals, op. cit., p. 15.

<sup>&</sup>lt;sup>30</sup>Ibid., p. 16.

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# Recommendations for Preparation and Certification

First National Conference. -- The first national conference on high school dirver education in 1949 produced recommendations for the preparation and certification of driver education teachers. Minimum pre-service education recommendations as established by this conference were:

 "A two-three semester hour credit course in driver education including supervised teaching experience for classroom and driving phases.

#### Additional recommendations included:

1) Each course should extend over a full semester or be offered during a regular summer session with time allotment equal to that of a one-semester course.

<sup>31</sup> Ibid.

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2) Teacher education institutions should consider offering graduate courses in safety education.

Recommendations concerning in-service education included the following:

- 1) Teachers with a one week (40 hour) course, or less, were to take an advanced credit course in driver education.
- 2) Supervised teaching was to be a part of the advanced course.
- 3) Opportunities were to be provided for annual or bi-annual attendance at refresher conferences, workshops or institutes in driver education."32

Second National Conference. -- At the second national conference held at Michigan State College in 1953, most of the policies related to teacher qualifications, preparation and certification that were formulated in the first conference were maintained. There were however, some significant changes and additions which reflected newer concepts.

A serious need existed to up-grade the pre-service program. It was recommended that each state establish long range requirements for the preparation of teachers.

<sup>32</sup> Hartman, op. cit., p. 28.

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All teachers were to meet these requirements within a period of five to eight years. A three-phase long range plan was suggested:

- 1) Phase one would include the two courses recommended at the first national conference.
- 2) Phase two suggested an advanced course in driver education and additional electives in and related to safety education, thereby enabling a total of at least ten semester hours.
- 3) Phase three included the previously mentioned courses plus additional courses for a minor of fifteen semester hours.<sup>33</sup>

Third National Conference.--A third national conference was held at Purdue University in 1958. Educators and consultants representing 40 states gathered to review current practices and problems in driver education and make recommendations for future improvements. There was agreement on the minimum preparation of a teacher which included the completion of a teaching minor or its equivalent in driver and traffic safety education with

<sup>33</sup> National Conference on Driver Education (Michigan State College, 1953) Policies and Practices for Driver Education (Washington: National Education Association, 1954), p. 23.

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34 Ibid. 35 Matic Mersity, 195 Metiona nine semester hours required in driver and safety education courses and the remainder in electives.  $^{\mathbf{34}}$ 

General qualifications that were recommended included:

- 1) "Teacher should hold a bachelor's degree.
- 2) Possession of a valid teaching certificate.
- 3) Basic qualities necessary for effective teaching in other fields.
- 4) Enthusiasm and interest in driver and safety education.
- 5) Having a resourceful, inquiring attitude into the problems of driver and safety education."35

Special qualifications that were identified include:

- "A valid teaching certificate in driver education.
- 2) Valid drivers license.
- 3) Strong desire to set good example in own driving habits.
- 4) Extensive driving background:
  - a) at least 3 years

<sup>&</sup>lt;sup>34</sup>Ibid., p. 23.

National Conference on Driver Education (Purdue University, 1958) Policies and Practices for Driver Education, National Commission on Safety Education, p. 18.

- b) driving record free of repeated accidents and violations
- c) experience driving different makes or types of vehicles and on different highway conditions.
- 5) Good physical and mental health.
- 6) Interest in applying research findings and contributing to special studies in driver and safety education.
- 7) Willingness and ability to work with community groups.
- 8) Maintain driver education equipment in good condition.
- 9) Using ingenuity and imagination to structure learning experiences.
- 10) Ability to identify and solve special problems of student drivers."<sup>36</sup>

Although not called competencies, some specific skills were identified as being important for driver education teachers. Those mentioned included special administrative skills, selection of learning experiences, methods of instruction, planning learning experiences, and selection of materials and equipment.<sup>37</sup>

<sup>&</sup>lt;sup>36</sup>Ibid., pp. 18-19.

<sup>&</sup>lt;sup>37</sup>Ibid., pp. 11-16.

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38<sub>Ibid</sub>

Reference was made to the need for pre-service teachers to gain experience through laboratory practice so as to:

- 1) "improve his own driving ability,
- 2) learn teaching techniques for behind-thewheel instruction, and
- 3) gain skills in supervised practice teaching."<sup>38</sup>

Recommended certification requirements were also agreed upon during the conference. These included the following:

- 1) "Should be only secondary teachers.
- 2) Improved in all states.
- 3) Must hold a bachelor's degree.
- 4) Posseses a secondary certificate.
- 5) Valid drivers license.
- 6) 3 years driving experience.
- 7) Nine (9) semester hours coursework
  - a) Introduction to Safety Education (3 hours)
  - b) Driver and Traffic Safety Education(6 hours)
- 8) Sufficient related elective courses to acquire a minor."39

<sup>&</sup>lt;sup>38</sup>Ibid., p. 21.

<sup>&</sup>lt;sup>39</sup>Ibid., pp. 24-25.

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Fourth National Conference. -- The fourth national conference was held in 1963 in Washington D.C. An important part of the conference dealt with improvement of teacher preparation and certification. Specific recommendations regarding the preparation and certification of driver education teachers included the following competencies:

#### Selection of Teachers:

- "Operates vehicle in safe, legal, responsible and efficient manner.
- 2) Has a feeling of responsibility and knowledge in regards to conservation of human and material resources.
- 3) Understands and actively supports a broad program to reduce traffic accidents.
- 4) Has skill in manipulating vehicle controls and safety devices.
- 5) Equipes, operates, and maintains own vehicle in safe operating condition.
- 6) Accurately perceives and interprets key segments of the traffic scene.
- 7) Makes accurate judgments and correct decisions based upon
  - a) correct interpretation of traffic situation
  - b) knowledge of laws

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- c) knowledge of limitations and capabilities of motor vehicle
- d) knowledge of physical and mental limitations of drivers
- 8) Performs in a variety of highway and environmental conditions."40

### Preparation of Teachers

Under this area the following competencies were identified:

- 1) "Plan an effective course of instruction.
- 2) Perform well in teaching.
- 3) Drive in a skillful, safe and efficient manner.
- 4) Recognize and be able to improve the physical, mental and emotional traits students need for good driving.
- 5) Evaluate their own teaching.
- 6) Identify and help solve special problems of individual students.
- 7) Understand basic research methods and apply results of research.
- 8) Organize and provide needed administrative services.
- 9) Work effectively with community resource groups.

<sup>40</sup> National Conference on Driver Education (Washington D.C., 1963) Policies and Practices for Driver Education, National Education Association, 1964, pp. 11-12.

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44 Ibid

10) Adaptable to change and new ideas, 41

## Pre-Service Preparation:

The recommendations for pre-service preparation included a minor or its equivalent in safety education.

Required courses recommended were:

- 1) "3 semester hours in safety education.
- 2) 9 semester hours in driver and traffic safety education with electives in behavioral sciences (3-6 semester hours) and other electives (3-6 semester hours) from related areas."<sup>42</sup>

## Certification Requirements:

- 1) "Bachelor's degree.
- 2) Valid teaching certificate.
- 3) 12 hours in safety and driver and traffic safety education.
- 4) Physical qualities appropriate to demands as evidenced by health certificate.
- 5) Valid driver's license.
- 6) Satisfactory driving record."43

Something new which was added were suggested regulations concerning driving records of teachers:

<sup>41</sup> Ibid., p. 12.

<sup>42</sup> Ibid., pp. 12-13.

<sup>43</sup> Ibid., p. 14.

<sup>44</sup> Ibid.

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- 1) "Beginning teachers must have a valid license without conviction for a moving violation or without a chargeable accident for the two year period immediately prior to employment.
- 2) Conviction of a moving violation for which a driver license is suspended or revoked should call for automatic suspension of authorization to teach.
- 3) Those whose authorization to teach has been suspended should be required to maintain a driving record free of convictions for moving violations or chargeable accidents for a period of two years before reinstatement."44

Preparation and Certification in Driver and Traffic Safety

Education. -- In 1965 some 150 leaders in driver and traffic safety education representing state and local school systems, colleges and universities, and governmental and support agencies were called together in a national conference on teacher preparation and certification. Their task was to develop guidelines for:

- 1) "Curriculum for preparing teachers.
- 2) Articulation of this curriculum with the overall teacher preparation program.

<sup>44</sup> Ibid.

- 3) Certification of teachers.
- 4) Selection and preparation of college teaching staff."45

Related to this study are the areas dealing with the preparation and certification of teachers. The curriculum for preparing teachers of driver and traffic seafety education was organized into the following groups of competencies:

- 1) "Body of knowledge in the subject field.
- 2) Instructional strategy.
- 3) Evaluation techniques.
- 4) Organization and administration.
- 5) Inter-relationships of all apsects of safety education.
- 6) Research."46

Two major divisions were mentioned within the body of knowledge with general groupings under each one.

1) "Content needed by the teacher in order to develop the learners capability to operate the automobile safely and efficiently included:

<sup>45</sup> National Safety Education Conference on Teacher Preparation and Certification in Driver and Traffic Safety Education, Policies and Guidelines for Teacher Preparation and Certification in Driver and Traffic Safety Education, National Commission on Safety Education, 1965, p. 4.

<sup>46</sup> Ibid., p. 11.

- a) characteristics of drivers and pedestrians
- b) principles of physical science related to vehicle operation
- c) elements of in-car instruction
- d) traffic accidents
- e) traffic law and regulations
- f) owning and operating a vehicle
- g) effects of alcohol and drugs."47
- 2) "Content needed by the teacher to develop informed and effective traffic citizens included:
  - a) education
  - b) engineering
  - c) health, medical care and transportation of injured
  - d) laws and ordinances
  - e) motor vehicle administration
  - f) organized citizen support
  - g) police traffic supervision
  - h) public information
  - i) research"48

Major competencies listed for instructional strategy were related to content development, methodology,

<sup>&</sup>lt;sup>47</sup>Ibid., pp. 11-12.

<sup>&</sup>lt;sup>48</sup>Ibid., pp. 12-13.

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49<sub>Ibi</sub> 50<sub>Ibi</sub> materials of instruction, evaluation and other elements of a systematic approach to teaching. Those included were:

- "Procedures for designing and organizing the program.
- 2) Principles to guide learning process.
- 3) Laboratory instruction:
  - a) on-street
  - b) driving simulators
  - c) multiple-car driving range
  - d) combining laboratory instruction."49

Evaluation of student achievement mentioned were:

- 1) "Factors to be evaluated.
- 2) Instruments and techniques for evaluation.
- 3) Recommended principles for grading in driver education."<sup>50</sup>

Classroom and laboratory organization and administration competencies included the following:

- 1) "Determining policies and practices.
- 2) Curriculum.
- 3) Teacher selection and improvement.
- 4) Program planning.

<sup>&</sup>lt;sup>49</sup>Ibid., pp. 14-15.

<sup>&</sup>lt;sup>50</sup>Ibid., pp. 15-16.

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- 5) Arrangement of facilities and selection of equipment.
- 6) Conducting school-community relations.
- 7) Program evaluation."51

Inter-relationships of all aspects of safety education listed were:

- 1) "K-12 approach.
- 2) Accident causation and prevention. $^{152}$

Research competencies included the following:

- "Design and methods,
- 2) Analyzing research,
- 3) Conducting action research, and
- 4) Utilizing research findings in improving instruction."53

Recommendation for colleges and universities who were involved in preparation of driver and traffic safety education teachers were as follows:

1) "Preparation should be at the undergraduate level, and courses should be selected from the following areas:

<sup>&</sup>lt;sup>51</sup>Ibid., pp. 16-17.

<sup>&</sup>lt;sup>52</sup>Ibid., pp. 17-18.

<sup>&</sup>lt;sup>53</sup>Ibid., pp. 18-19.

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- a) driver and traffic safety education
- b) safety education and accident prevention
- c) behavioral sciences
- d) physical sciences
- e) biological sciences
- Student teaching experience in class and laboratory.
- 3) Curriculum pattern and hours required should conform to prevailing certification and teacher preparation standards and the individuals institution's requirements for the undergraduate degree.
- 4) Concentration of at least a major or minor.
- 5) Content areas of concentration:
  - a) required courses 12 semester hours-Introduction to Safety Education 3semester hours
    - -Driver and Traffic Safety Education
      9 semester hours
  - b) electives from behavioral sciences3-6 hours
  - c) other electives 3-6 semester hours."54

Highway Safety Act of 1966.--As a result of the 1966 Highway Safety Act, minimum standards for driver

<sup>&</sup>lt;sup>54</sup>Ibid., pp. 22-24.

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55<sub>U.S</sub> !, "Volum education teachers were proposed. Those who worked on developing the recommendations relied heavily on the recommendations from the 1963 National Conference as cited above. Qualifications for driver education teachers were identified as basic or additional. Those under basic were:

- "Necessary physical and mental capabilities for teaching in the field.
- 2) A bachelor's degree or its equivalent from an accredited institution of higher learning.
- 3) A valid driver's license from the state in which the person plans to teach.
- 4) A satisfactory driving record as defined by the state education agency in cooperation with the state licensing agency."55

Additional qualifications included the following:

- 1) "Successful completion of the following college level courses prior to certification:
  - a) Required courses, totaling at least 12 semester hours:
    - -Introduction to Safety 3 semester hours
    - -Driver and Highway Safety Education 9 semester hours

<sup>55</sup>U.S. Department of Transportation, <u>Highway Safety</u> Manual, "Volume 4: Driver Education," p. 10.

- b) Required courses should include attention to dual controlled car plan, driving simulation systems, multiple-car range systems, research, teaching materials, and literature in the field.
- c) Elective courses in the behavioral sciences, including:
  - -Sociology
  - -Social Psychology
  - -Abnormal Psychology
- d) Other related courses which deal with:
  - -Traffic law enforcement
  - -Street and highway engineering
  - -Legislation
  - -Driver licensing
  - -Traffic management
  - -Auto-mechanics
  - -Vehicle safety equipment
  - -First aid
  - -Audio visual aids
  - -Pedestrian safety
  - -Communications"56

<sup>&</sup>lt;sup>56</sup>Ibid., pp. 10-11.

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- 2) Additional pre-service preparation should provide the prospective driver education teacher with experience in:
  - a) "Class and lab teaching techniques through formal instruction and supervised student teaching.
  - b) Teaching specific driving knowledge.
  - c) Teaching advanced skills such as those required for handling driving emergencies.
- 3) Where possible, the prospective driver education teacher's academic preparation should be directed to the specific of driver and highway safety education."<sup>57</sup>

Fifth National Conference.--A national conference on safety education was held in December, 1973 at Warrensburg, Missouri. The purpose was to update policies, principles and practices regarding driver and safety education programs. Some 250 safety specialits from the U.S. were involved in the three day conference. One recommendation of this conference was that state departments of education should encourage teacher preparation

<sup>&</sup>lt;sup>57</sup>Ibid., p. 12.

institutions to develop and implement high-quality, competency-based teacher preparation programs. 58

Teacher qualifications were recommended but were very limited as to specific competencies that teachers should be able to perform. Those mentioned were:

- "Desirable physical and mental capabilities for teaching driver education as determined by screening examinations and other evaluative tools.
- 2) A bachelor's degree or its equivalent from an accredited institution of higher education.
- 3) A valid state driver's license with a satisfactory driving record.
- 4) At least a teaching minor or equivalent of 18-22 semester hours in driver and safety education.
- 5) Competencies essential to successful performance as a driver education teacher.
- 6) Pre-service preparation and direct experience or supervised student teaching with experience in both classroom and laboratory phases of instruction.

<sup>58</sup> National Conference on Safety Education (Central Missouri State University, 1974), Policies and Guidelines for Preparation and Certification of School Safety Personnel, American Driver and Traffic Safety Education Association, p. 5.

7) Specific knowledge of the dual controlled car plan, electronic simulation systems, off-street multiple-car driving ranges, multimedia response systems and related literature."59

Although indicated that essential competencies were needed for successful performance, little attempt was made at that conference to list them. There were included however, a few functions that were considered desirable for the teacher of driver and traffic safety education.

Those listed were:

- 1) "Adapts safety curricula provided by state or local boards of education to his or her school's program in accordance with local needs and resources.
- 2) Demonstrates ability to identify key elements in complex situations, predict risk involvement and execute safe decisions.
- 3) Provides students with learning experiences in the cognitive, psychomotor, and affective domains which will help them to perform safely within the highway transportation system and other technological environments.

<sup>&</sup>lt;sup>59</sup>Ibid., pp. 22-23.

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- 4) Selects and conducts learning activities, from simple to complex, which correspond with the learners mental, physical and emotional performance capabilities.
- 5) Selects routes for on-street and on-site lessons to facilitate learning experiences in a systematic manner.
- resources which enhance the instructional program (i.e. police, courts, auto dealers and clubs, safety councils, driver licensing, and insurance agencies).
- 7) Selects or develops evaluation devices which measure the behavior sought in specified objectives.
- 8) Interprets the school safety program to the public.
- 9) Participates in activities leading to professional growth, such as graduate study, workshops, and activities of professional associations."<sup>60</sup>

In addition, it was recommended that pre-service teachers of driver and traffic safety education should have an undergraduate major in driver or safety education

<sup>&</sup>lt;sup>60</sup>Ibid., p. 8.

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62 Ame Association, Sety Educat with no less than a minor in the area. Other educational experiences were listed for purposes of teaching competency. 61

In another manual developed during the same conference, other recommendations were listed under sections on teacher qualifications. Those considered were:

- 1) "Involvement with traffic safety activities carried on by private groups, governmental entities, and civic organizations.
- 2) Stimulating and participating in in-service experiences.
- 3) Keeping up-to-date on published literature and adapting research findings and results of experience to improvement of instruction.
- 4) Actively participating in local, county, state and national professional associations.
- 5) Seeking opportunities to recieve more and more formal preparation leading toward advanced degrees." 62

## Need for Well Prepared Teachers

Driver education leaders have for years recognized the need to improve the qualifications of teachers.

<sup>61&</sup>lt;sub>Thid.</sub>, p. 9.

American Driver and Traffic Safety Education
Association, Policies and Guidelines for Driver and Traffic
Safety Education, Washington D.C.: ADTSEA, 1974, pp. 22

In a paper presented at the 1965 National Driver Education Conference on teacher preparation, Angus B. Rothwell discussed the need for such a conference. He stated that low certification requirements prevailed in a number of states and a wide variance existed in the requirements from state to state. A few required a minor in driver and traffic safety education, while others had no college credit course requirements. In addition, he stated that there was a wide range of practices and standards and many courses were offered more as an afterthought than as a planned program. It was his feeling that weaknesses in preparing and certifying teachers had a profound and determined effect upon the performance of teachers which in turn led to the effects upon student performance. 63

In 1967 in a speech at the National Safety
Congress, Gerald Wallace, then the Associate Executive
Secretary of the National Commission on Safety Education,
indicated the need for more teachers in driver and
traffic safety education. He predicted that the "30 and
6" requirements would disappear and that schools would

Angus B. Rothwell, "The High School Teacher,"

<u>Policies and Guidelines for Teacher Preparation and Certification in Driver and Traffic Safety Education, National Commission on Safety Education, 1965, pp. 33-36.</u>

be moving toward semester programs on the same professional basis as other subject areas.  $^{64}\,$ 

In a paper presented to the school and college conference at the National Safety Congress, Gordon Sheehe outlined a number of areas which he considered as problems with driver education. One area related to this study was that of teacher qualifications.

Mr. Sheehe referred to the driver education profession as having been content with allowing teachers to take a certain number of credits in driver and traffic safety education courses. He referred to recommended policies and guidelines which specified that a minor or its equivalent should be the basis for teacher certification.

He contended that this was not enough; course titles did not assure that the course would fulfill the need or that it would resemble a course by the same title offered elsewhere. There was a need for much clearer and specific delineation of the curriculum and content of the courses needed by driver education teachers.

In an effort to meet this need, the Michigan

State University's Highway Traffic Safety Center developed

<sup>64</sup>Gerald Wallace, "Problems in Teacher Preparation" School and College Conference, National Safety Congress Transactions (National Safety Congress), 1967, pp. 22-23.

a model curriculum and specific course outlines for the preparation of college and university driver education teachers. Most of which would also apply to the high school driver education teacher. 65

Dr. Hartman, while speaking on the topic "Driver Education in the 70's," expressed concern over the lack of quality teacher preparation programs in the country. He indicated that there were several states making efforts to change, but most were not meeting the challenge. California, Wisconsin and Washington were commended for the progress they were making. 66

Dr. Dunn in an article entitled "The Changing Winds in Driver Education" in April, 1972 expressed his concerns about the need for quality teachers. He felt that the two or three semester hour "quickie course" should be abolished and a program consisting of a major or minor be established. "A part time teacher preparation program will produce, for the most part, a part time teacher." He goes on to say that better prepared

<sup>65</sup>Gordon H. Sheehe, "The Trouble with Driver Education," National Safety Congress Transactions, School College Conference (National Safety Congress, 1969), p. 57.

<sup>66</sup> Charles Hartman, "Driver Education in the 70's," California Journal of Traffic Safety Education (June, 1970), pp. 13-15.

<sup>67</sup> Leroy W. Dunn, "The Changing Winds in Driver Education," Journal of Traffic Safety Education (April, 1972). p. 7.

drivers will be produced by carefully chosen, well prepared, competent and certified teachers. At the conclusion of the article, Dr. Dunn listed three things that
must be done to improve the future of driver education.
All efforts should be toward:

- Improving and expanding driver education programs for all eligible persons.
- 2) Upgrading and expanding teacher preparation and certification programs for driver education.
- 3) Developing and implementing research programs to evaluate and/or improve driver education programs.

In discussing the content and intent of the Highway Safety Program Manual on Driver Education, Dr. Dunn referred to a section on the teacher preparation programs.

The heart of any educational program is the teacher, for it is the teacher who gives meaning and substance to the learning process. Driver education like any other discipline must have teachers who are knowledgeable, competent and interested in preparing students to participate in society.

Driver Education teachers have a greater responsibility than others in preparing youth to survive in our contemporary highway transportation system. The task can be fulfilled only if driver educators are adequately prepared to perform. This performance must be based in

<sup>&</sup>lt;sup>68</sup>Ibid., p. 20.

part on the teacher's knowledge of: the driving task, objectives and purposes of driver education, and most effective methods of presenting learning experiences.

Teacher preparation programs should be broadly conceived, pedagogically sound, comprehensively treated as to the prescribed body of knowledge and sequentially arranged to provide preparation in depth. In essence, teacher preparation programs should be effective programs based on empirical fact derived from the real world of driver education. 69

#### ACCOUNTABILITY MOVEMENT

Recently much interest has been expressed about the accountability of teachers regarding the performance of students. According to Brondy, this came about because of several factors: the dissatisfaction concerning the educational process as expressed by such people as Bestar, Koerner and Rickover, reaction from the Council for Basic Education in the late 50's and early 60's, and troubles of the urban schools encountered in the last decade. 70

It was also believed to have been caused by a gap between theory and practice. Programs were largely academic capped by student teaching. Student learning was not guaranteed and before long the motto "By their fruits"

<sup>69</sup>Leroy W. Dunn, "The Highway Safety Program Manual for Driver Education," National Safety Congress Transactions, National Safety Congress, 1969, p. 54.

<sup>70</sup>Harry S. Brondy, "A Critique of Performance-Based Teacher Education," American Association of Colleges for Teacher Education, Pamphlet Series #4, p. 12.

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72 billebear 669. Sys ye shall know them" became a reality with teachers as well as teacher educators being asked to meet the demand of accountability.

In answer to the question "How would this be done?" the author suggested that programs for the preparation of teachers would have to be related to the real world. Teacher preparation would have to be geared directly to what teachers did or promised to do or somebody wanted done in real classrooms. 71

The demand for accountability became so strong that some states required schools to account for their funding. Behavioral objectives were established in California and Michigan. Recently as assessment of the Michigan accountability system was made. The evaluators were unified in their belief that accountability was important. Their concerns seemed to indicate that it should be practiced at all levels of education and that the quality of education should improve. They suggested that prior to full implementation, a thorough and widespread field testing program should be undertaken and the results be critically analyzed. 72

<sup>&</sup>lt;sup>71</sup>Ibid., p. 13.

<sup>72</sup> Earnest R. House, Wendell Rivers, Daniel Stufflebearn, "An Assessment of the Michigan Accountability System," Phi Delta Kappan (June 1974), pp. 663-669.

Several positive features were mentioned:

- Public discussion had been stimulated as to the goals of education.
- Educators had been directly involved in developing objectives.
- 3) It provided direction for the state accountability movement.

Some negative factors immerged also:

- 1) Common goals were not sufficiently clarified.
- 2) Relatively few people were involved in the development of objectives.
- 3) Teachers may attempt to teach for the test and not for the child.
- 4) Test score results may be tied into funding. 73

## Definition of Accountability

Several definitions of accountability as related to education have been proposed. One, according to Lessinger, it is defined as:

. . . the product of a process. At its most basic level, it means that an agent, public or private, entering into a contractual agreement to perform a service will be held accountable for performing according to agreed upon terms with an established time period, and with a stipulated use of resources and performance standards.<sup>74</sup>

<sup>73&</sup>lt;sub>Ibid</sub>

<sup>74</sup>Leon Lessinger, "Engineering Accountability for Results in Public Education," Phi Delta Kappan, Vol. 52, December 1970, p. 217.

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75 Vi Re Parent's Although it is important to understand the meaning of accountability, more important is the spirit of the movement that seems to have spread throughout the whole country.

#### Implications of Accountability

As a result of the accountability movement, many new programs and systems have been developed with the intent on improving instruction and meeting the demands of society. Some of the implications are measurable performance objectives, teacher tenure laws, performance contracting, voucher systems, differentiated staffing patterns, item analysis budgeting systems and community control of schools. 75

It is the opinion of Roush that performance accountability will find its way into the regular class-room. Teachers in the future will be expected to show measurable evidence of students' learning at predetermined levels during specified time periods and teachers will be just as accountable for student achievement as students are now. Goals will have to be more individualized and realistically attainable. Failure as we know today may totally disappear. 76

<sup>75</sup>William Buchan, "Educational Accountability: The Parent's Role," Education (Sept/Oct, 1972), pp. 22-24.

<sup>&</sup>lt;sup>76</sup>Roush, op. cit., p. 117.

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Public reaction seems to indicate that educators must now be responsible for the development of curricula that will meet the needs of students and also be cost effective.

According to the Gallup poll in 1971, 80% of the population wanted some sort of accountability for the 20 cents of every tax dollar which is spent on education. 77

It is felt by some that accountability is something that must be shared by all who are concerned about the student's success in school. One example is expressed by Quick as he discusses the advantages and disadvantages of accountability. He claimed that teachers should be held accountable only for those actions by which he can influence. It is felt that all school staff including teachers, administrators, supervisors, counselors, aides, etc. should also share in the responsibilities. School boards, tax payers, parents and students themselves are also obligated. Teachers should not be singled out as the sole responsible factor but should share the task with others. 78

<sup>77</sup> Tucker, op. cit., p. 29.

<sup>78</sup> Thomas Quick, "Teachers Accountable? Positive and Negative," National Association of Secondary School Principals Bulletin (December, 1973), pp. 31-40.

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Quick went on to identify some common pitfalls of accountability:

- To make teachers accountable for specific performances may cause teachers to start teaching for the tests and may cause more harm than good.
- 2) Schools may be accountable by reporting annually the average achievement scores of pupils in the local newspapers.
- 3) Teachers might be held accountable for bringing each pupil up to the national norm.
- 4) Teachers could be responsible for enabling every student to grow one's grade equivalent for each ten months in school. 79

Gubser discussed some of the negative aspects of accountability taking place in Arizona and felt that other states may be faced with the same types of problems. State control seemed to increase while in-put from local taxpayers, parents, and educators was discouraged. The fear that pupil performance would be used as a fundamental criterion in re-certifying teachers was also expressed. 80

<sup>79&</sup>lt;sub>Ibid</sub>.

<sup>80</sup>M.M. Gubser, "Accountability As a Smoke Screen for Political Indoctrination in Arizona," Phi Delta Kappan (Sept. 1973), pp. 64-65.

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<sup>81</sup> Le Cherent Acc (me 1974).

In spite of the obvious drawbacks, the accountability trend has continued to surge ahead. To indicate how extensive it has become, Leon Lessinger, often considered "The Father of Accountability," said recently that by the fall of 1972 some 23 states had passed legislation or joint resolutions featuring some aspect of accountability. By 1973, a little more than a year later, the number had increased to 33 with another dozen states considering action of some kind. Over 4,000 books and articles on accountability have been printed in the last four years. 81

### Accountability in Driver Education

Until recently, there seemed to be ample evidence that students taking driver education would be better drivers and less likely be involved in automobile crashes than those who did not participate in the program. One recent study was unable to prove the so-called benefits of taking the course. Referred to as the Moynihan Report, and delivered to the Secretary of the Department of Health, Education, and Welfare on February 29, 1968, this study discussed expenditure of federal funds from section 402 of the National Highway Safety Act of 1966.

<sup>81</sup>Leon Lessinger, "Holding the Accountability Movement Accountable," Editors page, Phi Delta Kappan (June 1974), p. 657.

. . . unfortunately, the present state of knowledge as to the effectiveness of driver education provides no certainty, and much doubt, that the return on the enormous prospective effort will be comensurate with the investment. A broad and systematic inquiry is needed into how driving behavior is acquired, and how drivers can be taught not only to operate automobiles, but also to undersand the major problems of highway safety, including the crash and post-crash aspect. 82

This and other criticism regarding the effectiveness of driver education has resulted in research projects designed to determine the driving task, and establish a curriculum using a systematic approach.

In 1970, The Automotive Safety Foundation developed A Resource Curriculum in Driver and Traffic Safety

Education which many states have used in designing their own state curriculums. Human Resources Research Organization completed a two year project designed to determine the driving task. This consisted of a four volume report dealing with the development of driver education objectives through an analysis of the driving task.

With the rising costs of education and the apparent lack of trust shown by parents, as depicted by the increasing failure of bond levies, it becomes more and more difficult to operate schools. Because of its

<sup>82</sup> Damron Frazier, Robert Clasen, "Plans For The Assessment and Evaluation of High School Driver Education in Wisconsin" (August, 1971), p. 34.

cost, the driver education program is usually one of the first to be cut. It becomes increasingly important that if driver education is to survive, it must become accountable for what it does. This will require movement in the direction of performance-oriented programs that are more easily measured.

In an article dealing with this topic, Seals indicated that some form of accountability in driver education is here to stay. His opinion is that this has come about because of the profession's inability to prove itself. Reasons were given as to why driver education should be held accountable. Those listed included the following:

- 1) "Driver education must be able to demonstrate its worth before the federal funding agencies place the program in proper perspective.
- 2) Driver education must be accountable to the students enrolled in the course.
- 3) Driver education must be accountable for producing measurable results to the taxpayers."

<sup>83</sup>Dr. Thomas A. Seals, "Accountability in Driver Education," Journal of Traffic Safety Education (July, 1972), pp. 11-13.

In conclusion, Seals said that "there is no other way to go, and that understandable objectives must be identified, research-based course content must be developed, learning procedures and wide spread application of dependable evaluation techniques would provide a meaning-ful accountability for high school driver education."

Weaver also discussed accountability in driver education. He felt that movement toward accountability would require teachers to know exactly what results were being sought. Behavioral objectives would have to be established for each activity making it clear for the student and assessment easier. If this were done it would make it easier for teachers to improve their skills in setting goals, diagnosing needs and analyzing learning problems. 85

#### COMPETENCY-BASED TEACHER EDUCATION

### Definition

Due to the accountability movement, one of the latest bandwagon efforts in education has been the emphasis on comeptency-based programs for the preparation of professional school personnel. This concept has been defined

<sup>84</sup> Ibid., p. 13.

<sup>85</sup> Jack K. Weaver, "A Systematic Approach to Driver Education Accountability," <u>Journal of Traffic Safety Education</u> (April, 1973), p. 25.

different ways but probably one of the best definitions was given by Stanley Elam in his article written for The American Association of Colleges for Teacher Education (AACTE) entitled "Performance-Based Teacher Education: What is the State of The Art?"

In performance-based programs, performance goals are specified and agreed to in rigorous detail in advance of instruction. The student preparing to become a teacher must either be able to demonstrate his ability to promote desirable learning or exhibit behaviors known to promote it. He is held accountable not for passing grades but for attaining a given level of competence in performing the essential tasks of teaching. The teaching institution itself is held accountable for producing able teachers. The emphasis is on demonstrated product or output. 86

## Origin of the Concept

While writing on the theme of competency-based training programs, Hodson attributed the origin of the concept to a number of events and developments during the past ten to fifteen years. Those listed included the following:

"the increasing awareness that the present educational process is not meeting the needs of various racial, ethnic and socio-economic minority groups, but rather is geared toward the average middle-class, white student.

<sup>86</sup>Stanley Elam, "Performance-Based Teacher Education: What is the State of the Art?" (Washington, D.C.: American Association of Colleges for Teacher Education, December, 1971), pp. 1-2.

- 2) the development of programmed instructional materials which focus on every individual achieving the same knowledge and skills at differing rates of speed.
- 3) contractual arrangements by schools with private agencies who guarantee a specific, measurable gain in student learning.
- 4) demands by taxpayers that the rapidly increasing amounts of federal and state monies poured into education produce visable. measurable results.
- 5) the introduction of business and industrial management concepts, especially the systems approach, into education with emphasis on procuding the best product for the least cost.
- 6) the increasing emphasis on individual teacher accountability for the progress of his/her students.
- 7) state and national assessments of student achievement which have shown wide discrepancies in levels of attainment of specific knowledge and skills.
- 8) the accumulation of evidence, through research and data collection from employers, colleges and universities, indicating the large number of students graduating from secondary programs with little or no proficiency in the basic skills.
- 9) technological advances and job shortages which require increasingly higher levels of educational achievement for successful competition in the job market."87

<sup>87</sup> Diane Hodson, "Competencies For Spedial Education Directors As Seen By Intermediate and Local Directors of Special Education in Michigan," unpublished dissertation for Ph.D. Degree, Michigan State University, 1974, pp. 12-13.

#### Arguments for and Against

Support both for and against competency-based teacher education is quite evident in the educational literature. Instead of quoting proponents for each side, the writer felt that the summary listing given by Hodson would adequately explain the positions of each side.

Some of the arguments that have been offered for the development of competency-based education were:

- 1) "the employer has the right to expect certain common minimal competencies from any person who has completed a training program irrespective of where and by whom that training program was administered.
- 2) the pre-evaluation component of a competency-based program decreases repetition of know-ledge and skills already mastered; thereby speeding up the completion of the program for many trainees.
- 3) competency-based programming provides a means of individualizing instruction so that the trainee can meet the requirements at his/her own rate of learning.
- 4) the trainee has the right to be evaluated on objective-based criteria which are the same for all trainees in that particular program and which are known to the trainee in advance.
- 5) development of competency-based programs forces the training institutions to identify, on the basis of research, what, in fact, are the knowledges and skills needed by various professionals for successful performance on the job."88

<sup>&</sup>lt;sup>88</sup>Ibid., p. 14.

The major arguments against competency-based teacher education were:

- 1) "the emphasis on specifying performance objectives limits the education of the trainee to only those performances which can be measured. This may produce a technician who lacks the basic theoretical knowledge to create or take advantage of alternative modes of functioning.
- 2) education should be for the broadening of perspectives, enrichment of life and understanding of self as well as for the preparation for a particular career.
- 3) definite limits are placed on the academic freedom of faculty through external determination of curriculum, through minimizing time for individual faculty creativity and through limiting the ability to introduce new discoveries, knowledge and techniques until they are proven through research.
- 4) it is impossible to develop and measure performance objectives for outcomes that are complex and subtle in nature, particularly those that are related to affect and attitudes. 89

As one can see both sides have good arguments.

A major problem with this type of a controversy is the view of "all or nothing." In answer to this problem Hodson expressed her opinion:

Hopefully, educational institutions will not turn into factories producing uniform products, fitting rigid specifications, which can perform only very limited functions. On the other hand, through the effort of trying to specify what, in fact, the

<sup>&</sup>lt;sup>89</sup>Ibid., p. 14.

trainee should be able to do at the end of his training program, educational institutions will have to take a closer look at the relationships between theory and practice, the content, the instructional strategies, the requirements and the evaluation procedures presently being used which do not maximize the potential of individual trainees and meet the requirements of future positions. 90

#### Status of Competency-Based Teacher Education

By February, 1973 17 states had given either legislative or administrative support, or both, to competency-based teacher education. In all but two it has been established as an alternative to the approved program certification route. Texas and New York mandated this as the only method. Fourteen states were working on new certification standards.

In a survey conducted by the American Association of Colleges for Teacher Education committee on Performance-Based Teacher Education a questionnaire was sent to some 1200 colleges and universities. Of the 783 that responded, 125 had programs which were for the most part consistent with competency-based teacher education definitions. Another 366 institutions said they were in developmental stages of planning. Two hundred and eighty eight were not involved. It was determined that 10

<sup>&</sup>lt;sup>90</sup>Ibid., pp. 14-15.

colleges or universities had their total teacher education program as competency-based and 80 others as an alternative or parallel to the traditional program. 91

#### Examples of Competency-Based Teacher Education

For several years a competency-based teacher education program has been in operation at Illinois State University where nearly 2,000 students work their way through self-paced instructional packages. Students progress at their own rate with the help of a team of professors utilizing a systems approach based on a general model of instruction. Desired teaching behaviors are specified in the self-paced packages, and a demonstration of proficiency is needed for each competency before credit Instead of grades, the student receives a is awarded. specified number of merits when packages are completed. When total requirements are met, the student receives Optional packages are available for those who desire enrichment. Texts, other materials and films are used to guide student learning.' Instructional objectives tell the student exactly what is expected of him. 92

<sup>91</sup> Benjamin Rosner, Patricia M. Kay, "Will the Promise of C/PBTE Be Fulfilled," Phi Delta Kappan (January, 1974), pp. 290-291.

<sup>92</sup> Howard Gertz, Larry Kennedy, Walter Pierce, Cliff Edwards, and Pat Chesebro, "From Traditional to Competency-Based Teacher Education," Phi Delta Kappan (January, 1973), pp. 300-302.

Another example can be found in the Nebraska Secondary Teacher Education Program (NUSTEP). This program has been in operation since 1969 and attempts to follow the model of performance-based teacher education as advocated by Stanley Elam in his report for AACTE. Early studies suggested two major findings:

- 1) "Teacher education students like PBTE programs better than traditional instruction.
- 2) Youngsters taught by NUSTEP people can achieve more."

The NUSTEP program replaces the traditional course content with learning activities related to behaviorally stated objectives. Students integrate theory and practice, prospective teachers are involved in self-directed learning with emphasis on problem solving. The program has become more field oriented with continual input from educators in the public school systems. 94

<sup>93</sup>Ward Sybouts, "Performance-Based Teacher Education: Does It Make a Difference?" Phi Delta Kappan (January 1973), pp. 303-304.

<sup>94&</sup>lt;sub>Ibid</sub>.

## Competency-Based Teacher Certification

Along with the movement toward competency-based teacher preparation has come the concern for competency-based teacher certification. Roth defined this as:

A process which relies on the direct performance of specified behaviors as the criteria for judging competence. 95

This would replace lists of courses and grade point averages as the basis for certification.

Andrews discussed some assumptions which were important to conceptualizing and defining roles of professionals who desire certification. He felt that many beginning teachers were not adequately prepared to receive certification. Since objective systems for measuring performance are available, he declared that now is the time to move on to competency-based teacher certification with more research studies following. 96

Roth went on to point out some recent developments of competency-based certification which seemed to indicate strong support for this approach:

<sup>95</sup> Robert Roth, "Certifying Teachers-An Overhaul is Underway," The Clearing House, January, 1973, 47:287-291.

<sup>96</sup> Theodore E. Andrews, "Certification Issues in Competency-Based Teacher Education, Educational Technology, Nov. 1972, 12:43-45.

- 1) In 1967, the AACTE developed specific guidelines for teacher certification in performance terms.
- 2) In 1968, the AACTE published a booklet entitled "Professional Teacher Education" that contained a section which dealt with demonstration and evaluation of teaching competencies.
- 3) The American Association for Advancement of Science and the National Association of State Directors of Teacher Education and Certification cooperatively developed guidelines for certifying math and science teachers. It was suggested that performance criteria be used to determine the ability to teach.
- 4) A committee of the National Commission on

  Teacher Education when studying the preparation of nursery and kindergarten teachers

  recommended the following:

At all levels of teaching, certification should depend on demonstrated competence. State agencies in cooperation with professional organizations and college faculties should establish criteria and procedures for evaluating competence. 97

5) In 1970, a conference on the subject was sponsored by the U.S. Office of Education and the Florida Department of Education.

<sup>97&</sup>lt;sub>Roth, op. cit., p. 288.</sub>

Although 29 states were interested in attention, only 11 states and 7 professional associations could be accommodated. Florida, New York, New Jersey and Washington seemed to be among states that were moving in this direction. 98

# Competency-Based Teacher Education and Certification in Driver Education

Attempts have been made to identify competencies for teachers of driver and safety education. Most have been very general in nature and not until recently have they been behavioralized. Prior to the First National Conference on Driver Education in 1949 Trabue identified what he felt were desirable standards for teachers of safe driving courses. Those listed were:

- "Good health and physical condition, including normal vision, good hearing and no physical disabilities.
- 2) State certification and at least a year of successful experience as a teacher of adolescents.
- 3) Even tempered, unselfish, business-like, not easily excited or angered, unusual patience and genuine interest in young people.

<sup>98</sup> Ibid., pp. 287-291.

- 4) Strongly developed attitudes and habits of effective co-operation with others in community improvement activities.
- 5) Superior skills and habits as a driver, demonstrated by high scores on a road test and a record of at least 20,000 miles of safe driving.
- 6) Thorough knowledge of the important factors and understandings to be taught and of the procedures by which they can be taught most effectively.
- 7) Genuine enthusiam for driver education as a means of developing good citizenship and of preventing accidents.
- 8) Efficiency as a lecturer, demonstrator, discussion leader and organizer of people and activities.
- 9) Efficiency in the use of tests and other instructional materials and in adopting instruction to the special needs of individual students.
- 10) At least a two semester course in teaching safe driving."99

<sup>99</sup> Marion R. Trabue, "Desirable Standards in Driver Education and Training," National Safety Congress Transactions, School and College Division, National Safety Council, Vol. 33, 1948, p. 45.

In another address to the National Safety Congress,

Trabue indicated what type of preparation teachers of

driver education must have in order to teach.

- A thorough training in the what and how of safe driving and the what and how of teaching safe driving.
- 2) Specific skill and knowledge related to the automobile and to the conditions within which it operates.
- 3) The preparation to develop in students the attitudes and habits of co-operation. 100

Gregg, in a speech at the 1959 National Safety Congress discussed what he felt were some of the needs of sefety education teachers. The general areas of concern included:

- Competency in organizing the entire safety program.
- 2) Ability to utilize educational materials to assist boys and girls to acquire functional habits in safe living.
- 3) Competencies in education for safe living.

<sup>100</sup> Trabue, Marion R. "Safety Education Needs of Pre-Service Teachers," National Safety Congress Trans-actions, National Safety Council, Vol. 33, 1948, pp. 68-71.

- 4) Administrative sanction and leadership of the safety program.
- 5) Ability to use and work with voluntary health agencies and other community groups. 101

In determining guides for the preparation of safety education teachers, Gregg mentioned that:

All institutions preparing teachers should include in their programs of preofessional preparation courses and laboratory experiences which will enable each prospective teacher to acquire the competencies necessary for functioning in the program of safety education. 102

Dr. Kenel expressed his concern over the lack of quality teacher preparation programs in traffic safety education during the 1964 National Safety Congress. He identified in very broad terms the competencies needed by college and high school teachers although no attempt was made to define the extent of competency in any one given area. Because of their very nature, some competencies would tend to overlap. He felt that the more responsible the teaching position, the greater the depth and scope required for the competency. His listing was grouped into:

<sup>101</sup>Walter H. Gregg, "The Preparation of Teachers for Effective Safety Education," National Safety Congress Transactions, National Safety Council, Vol. 24, 1959, p. 82.

<sup>102</sup> Ibid.

- 1) "Skills.
- 2) Practical knowledge and
- 3) Academic knowledge."103

Dr. Key, in reporting the results of a project on teacher preparation and certification for driver education teachers, identified competencies that he felt should be required for teachers. Those listed were:

- "Mastery of the body of knowledge in the subject field.
- Ability to employ effective instructional strategy.
- 3) Skill in evolving on-going evaluation techniques.
- 4) Inter-relationships of all aspects of safety education.
- 5) Ability to use results of accident prevention research toward program improvement." 104

While addressing the school and college division of the National Safety Congress, Dr. Seals discussed the

<sup>103</sup>Dr. Francis Kenel, "Broader Horizons For Traffic Safety Education Teacher Preparation," National Safety Congress Transactions, School and College Conference, National Safety Council, Vol. 23, 1964, pp. 101-103.

Norman Key, "Project on Teacher Preparation and Certification," National Safety Congress Transactions, National Safety Council, 1965, Vol. 23, pp. 66-68.

competencies for the preparation and certification of driver education teachers. It was his feeling that the first step in improving the effectiveness of college teacher preparation of high school driver education teachers was to identify teacher functions or competencies. The second step was to develop a proper learning environment where competencies could be acquired without waste of time and where experiences were relevant and related to the real world. A third step was that of developing evaluation techniques which could measure desired competencies. 105

He then proceeded to identify the main groups of competencies along with examples of more specific statements that have been developed by the staff at Florida State University. Their organization was as follows:

- 1) "Planning and Administration The driver education teacher:
  - a) assists in developing and/or adapting goals, general objectives, and operating policies and procedures.
  - b) assists in developing and/or adapting plans for program organization and supervision.

<sup>105</sup> Seals, op. cit., p. 16.

- c) assists in developing and/or adapting plans for course structure as it relates to units of instruction.
- d) helps plan and provides specifications for classroom and laboratory environments.
- e) advises in regard to selection of personnel, facilities, equipment, media, and materials.
- f) develops and maintains a functional record and reporting system.
- g) assists in the scheduling process,
- 2) Management of Student Learning
  The teacher plans for student learning by:
  - a) selecting, adapting, and/or formulating behavioral objectives based on the tasks people perform as participants within the highway transportation system.
  - b) making appropriate assignment of objectives to the classroom phase, the laboratory phase, or both, as well as to the several units which may be contained in each phase.
  - c) organizing defensible teaching sequences and giving an acceptable rationale for the order.

- d) implements learning activities by:
  - -developing guidelines for program evaluation.
  - -analyzing group and individual strengths and weaknesses.
- 3) School and Community Service

## The teacher:

- a) assists in planning for effective safety instruction at all grade levels.
- b) interprets the driver and traffic safety education programs to the community.
- 4) Self-Improvement

#### The teacher:

- a) sets a good example as a traffic citizen and highway user.
- b) participates as a member of local, state and national professional organization."106

The state of Utah has developed a list of driver education competencies with the intent of moving in the direction of competency-based certification. The developmental process consisted of eight steps which were similar in some respects to those used by the writer, however very definite differences do exist. Briefly, the developmental process was as follows:

<sup>106</sup> Ibid., pp. 18-19.

- Lists of tasks considered to be important were submitted by an advisory committee of driver education teachers.
- 2) Survey was made of approximately one dozen documents dealing with driver education tasks and training driver education instructors.
- 3) Using data from steps 1 and 2, a set of competency statements for driver education teachers was compiled. This resulted in the writing of 64 competency statements which were classified into four major clusters.
- 4) The statements were submitted to the driver education advisory group for examination and criticism. They were also asked to rank each statement according to criticality for certification on a 1-5 scale. No statements were deleted as all were considered very important or crucial. Some additions were made.
- The revised set of statements were examined and resulted in the development of nine categories of criteria. This was accomplished by asking this question with regard to each competency statement: What type of evidence would be necessary and sufficient to make a valid inference regarding proficiency in this competency?

- 6) Each competency statement was matched with appropriate categories of criteria and the matching was confirmed by discussion between two consultants.
- 7) Criteria statements were written for each competency statement. At least one indicator for each appropriate category was written for each competency.
- 8) The material was again examined by the advisory committee who was asked to make any comments or changes. 107

The Human Resources Research Organization (HumRRO), while under a federal contract, developed a set of teacher functions known as instructor guides. "The functions were acquired by reviewing literature, talking with people in the field and noting what might be known and taught by an instructor when reviewing the task analysis." 108

An advisory group was utilized from across the nation to rate the criticality of each function listed on the mailed questionnaire. To guide their responses the

<sup>107</sup> Utah State Board of Education, "Preparation Process: Driver Education Competencies," attachment to Driver Education Competencies (July, 1973).

Human Resources Research Organization, "Instructions and Rating Form for the Evaluation of Functions for Driver Education Teachers," copy in personal possession of writer.

raters were to ask themslves the following question:

"How important is this function to the accomplishment of
the driver education instructors' goals and objectives?"

109

The following code was used to rate an item's criticality:

- "4 vital to the accomplishment of the instructor's goals and objectives.
  - 3 critical to the accomplishment of the instructor's goals and objectives.
  - 2 helpful to the accomplishment of the instructor's goals and objectives.
  - 1 unimportant to the accomplishment of the
     instructor's goals and objectives."110

In addition, each rater was asked to determine the frequency of each function using the following code:

- "4 The instructor always performs the function.
  - 3 The instructor frequently performs the function.
  - 2 The instructor occasionally performs the function.
  - 1 The instructor never performs the function." 111

<sup>109&</sup>lt;sub>Ibid</sub>.

<sup>110&</sup>lt;sub>Ibid</sub>.

<sup>111</sup> Ibid.

Under a federal grant, Illinois State University conducted a study to identify driver education competencies for the state of Illinois. A group of 25 driver education experts from throughout the United States were used to provide input into the development of the competency statements. Members of the group were sent copies of the statements and asked to react by making comments, additions or suggested deletions. This process was repeated several times. Members were not asked to rank order the statements as to importance.

The competency statements were grouped into the following major areas:

- 1) "Personal Driving Performance
- 2) Planning Instruction
- 3) Student-Teacher Inter-action
- 4) Evaluation of Student Performance and the Instructional Program
- 5) Administration and Logistical Matters
- 6) Public Relations and Service
- 7) Maintaining Professional Abilities" 112

North Carolina has changed its certification requirements from two semester hours to that of meeting 21 competencies. This standard will go into effect on

<sup>112</sup> Quane, op. cit.

September 1, 1977 for those certified prior to September 1, 1974. All others who are certified after that date must be granted the certification based upon the 21 competencies.

Three colleges in North Carolina are currently authorized to offer programs both on and off campus to assist teachers to meet the certification requirements.

To determine which teachers were meeting the requirements, a self-evaluation instrument was developed and mailed to each teacher containing the competencies with sub-listings of behavioral statements. The teacher was to mark those he had met along with an explanation of how he had accomplished it. The local education associations were to approve, disapprove and make comments. All courses that had been taken were listed on the back.

A committee of representatives from each college reviewed and determined if all requirements had been met. If notification of approval was given, a certificate was awarded, or if disapproval was given, a plan for becoming certified was outlined. 113

Florida is also moving toward a competency-based certification program for driver education teachers.

<sup>113</sup> Alfred S. King, "North Carolina's Competency-Based Driver Education Certification Programs," <u>Journal of Traffic Safety Education</u> (October, 1973), pp. 17-18.

Florida State University and the University of Florida in conjunction with the State Department of Education will be attempting to accomplish nine specific tasks, one of which will entail restructuring of the teacher certifica-Instead of issuing certificates to degree tion process. holders who have received passing marks on a given number of time-based courses in their field of specialization, a move will be toward identification of those competencies that are essential to satisfactory teacher performance, approving programs developed by colleges for enabling student teachers to acquire those competencies, and approving the techniques utilized by teacher preparation institutions to determine when teacher competencies are achieved. Upon receipt of a recommendation for certification within a given teacher preparation institute a certificate would be issued to individuals. 114

Seals discussed the kinds of things that may be part of the proposed competency-based teacher preparation program for driver education teachers at Florida State University:

 "Undergraduate courses will be streamlined to include direct value learning.

<sup>114</sup> Maurice Dennis and Tom Seals, "Florida's Changing Traffic Safety Education Program," <u>Journal of Traffic Safety Education</u> (October, 1973), pp. 37-38.

- 2) The number of undergraduate courses will be as small as possible.
- Learning experiences will be progressively arranged.
- 4) The role of professors will be to facilitate student learning rather than to direct what students are supposed to learn.
- 5) Individual needs will be met.
- 6) When completing the series of courses, students will have been evaluated for achievement of all essential competencies.
- 7) As far as practical, self-pacing will be allowed. This means that if established standards are met, students may not be required to attend all sessions of a given course or enroll in all the available courses. It may be possible, theoretically, that a student with sufficient study and experience could meet all competency requirements and receive full credit without actually enrolling in a course.
- 8) If satisfactory performance is achieved, certification would be given."<sup>115</sup>

<sup>115</sup> Seals, "Competency-Based Preparation and Certification for Driver Education Teachers," op. cit., p. 17.

#### SIMILAR TYPES OF STUDIES

The use of rater and/or jury panels to judge the desired material has been used in previous studies both in driver education and education in general.

Gruber in determining the fundamental concepts to be used in a parental involvement program in driver education used jurors and raters to evaluate concepts. The concepts were developed from literature relating to driver and traffic safety education and interviewing experts in the educational field. The concepts were categorized into topical and sub-topical areas, then checked for content accuracy and clarity by three groups of jurors.

The concepts were then submitted to two panels of raters who were judged to be experts in the field of driver and traffic safety education. The 163 concepts were rated on a five choice scale ranging from extremely unsuited to extremely suited. Rank ordering for both rater panels as well as for the combined rater group was done. A correlation was carried out in order to determine similarity. 116

Another example of the use of experts for judging the importance of material was a study conducted by Allen

<sup>116</sup> Frank Gruber, "A Determination of Fundamental Concepts to be Used in a Parental Involvement Program in Driver Education" unpublished Doctoral dissertation, Michigan State University, 1972.

Robinson to develop a post-test for driver education based on: A Resource Curriculum in Driver and Traffic Safety Education. A panel of judges was used to determine the criticality of each instructional unit in the Resource Curriculum. Test items were then written for each episode of each unit and then they were sent to the panel of judges to establish their validity and objectivity. 117

Moon conducted a study to analyze teacher tasks to enable identification of the potential use of auxiliary personnel in the instructional process. Seventy-four classroom teacher tasks were generated from three sources. The first source was a list of tasks enumerated on a time analysis study during a Bay City experiment. The second source consisted of a list in the "Activity Sheet" for demonstration centers by the Bank Street College of Education study. The author's experience during numerous classroom visitations made up the third source.

The instrument was administered to a group of twenty-four student teachers for pre-testing purposes.

After revisions it was submitted to two college instructors for purposes of clarification and validation of the instrument. The instrument was then sent out to the following five groups:

<sup>117</sup> Allen Robinson, "A Post-Test for Driver Education Based on A Resource Curriculum in Driver and Traffic Safety Education" unpublished Doctoral dissertation, Michigan State University, 1972.

- 1) Aides
- 2) Teachers
- 3) Principals
- 4) College Instructors
- 5) Experts

The respondents were asked to judge each item on a five point scale from strongly believing that only a certified teacher could teach the task to strongly believing that a non-certified person could do it. In addition, they were asked to consider if it could be accomplished by a non-certified person, could it be done by machines, a person, or either. 118

Lyman was interested in generating competencies that would be considered essential to the successful functioning of the community college academic dean. A secondary purpose was to translate the competencies into specific behavioral statements that would further clarify the administrative competencies. The competencies were analytically and inductively developed by grouping and comparing lists and duties which the academic dean must perform.

<sup>118</sup> Ralph A. Moon, "An Analysis of Teacher Tasks To Enable Identification of the Potential Use of Auxiliary Personnel in the Instruction Process," unpublished dissertation for Ph.D., Michigan State University, 1969.

Ten Michigan community college deans, representing institutions of different size, type and different levels of administrative experience were interviewed. They were asked to respond to each competency on the basis of

1) "how important they thought the competency was to their functioning, 2) how adequate they perceived the statement of the competency to be, and 3) what other competencies they thought should be included on the list." Following the interviews, the initial list of competencies and their statements was revised. The revised list of competencies was then translated into behavioral statements. 119

Diane Hodson conducted a study designed to generate competency areas and competency statements which would be appropriate for use as rules for approval of Michigan special education directors and guidelines for the development of preservice training programs to qualify persons as special education directors in Michigan. The study proposed to develop the first two steps in a series of four leading to the validation of competencies for inclusion in a pre-service training program for special education directors.

<sup>119</sup> William Joseph Lyman, "A Study of the Administrative Competencies Needed by the Community College Academic Dean and a Model of Their Translation into Behavioral Statements Related to Administrative Training Experiences," unpublished dissertation for Ph.D., Michigan State University, 1970.

Fifteen competency areas and 79 competency statements were included in the questionnaire that was sent to a panel of 144 approved directors of special education in Michigan. The respondents were asked to indicate for each competency statement: 1) "Whether the competency should initially be developed through a preservice training program or on the job and 2) the importance of the competency to their functioning as a director of special education." A five choice scale was used that ranged from no importance to crucial. 120

# PREPATATION AND CERTIFICATION REQUIREMENTS IN WASHINGTON STATE

Prior to 1949, certification programs in Washington State were based on a specified number of courses prescribed by the state. Later the program approval approach was used which granted responsibility to colleges and universities for the substance of preparation programs. School districts were involved in the student teaching experience and shared with the teacher and the institution of higher learning the planning of fifth-year programs. The teachers were certified based upon completion of the required courses and electives prescribed

<sup>120</sup> Hodson, op. cit.

in their program. Little emphasis was placed upon the capability of the perspective teacher to perform measurable tasks needed to demonstrate his competence. 121

In September, 1971, the Washington State Board of Education adopted new standards regulating certification of public school teachers. The new standards represented a much needed change in certification policies and should improve the quality of teachers within the state. As of this writing this program is only considered as an alternative to the certification by course completion.

With the adoption of the 1971 Standards, the emphasis was to continue with the approved program approach, further decentralize responsibility for preparation, and provide for increased participation and accountability by individuals being prepared, professional association, school districts and colleges and universities. 122

In these standards the state was concerned with ensuring that viable working relationships existed among these agencies and institutions, that preparation experiences provided by them be relevant to competence on-the-job, and that they be related to the actual world of the

<sup>121</sup> Washington State Board of Education, op. cit.
122 This

elementary and secondary school student and to the changing needs of society. These agencies must share the responsibility in developing a performance-based curriculum in which competencies are identified and the student is required to demonstrate his ability to perform as outlined in course objectives. These objectives must be written so as to identify to the student the behavior desired, the conditions under which learning will take place, and how well the behavior is expected to be demonstrated. 123

In an effort to move toward complying with the standards and develop a performance-based program for the preparation of traffic safety education teachers, federal money was granted for the development of a consortium. The three members were representatives from Central Washington State College, Ellensburg Education Association and Ellensburg Public School District No. 401. The work done by the consortium was centered around revising current teacher preparation courses at Central Washington State College. The course objectives were behavioralized and some work was accomplished in making certain parts of the courses individualized and performance-based. Some learning activity packages, evaluative checklists and performance sheets were developed and field tested. An

<sup>123&</sup>lt;sub>Ibid</sub>.

advisory committee made up of high school teachers was used to give input into the project.

Little attempt was made, however, to identify those competencies that would be considered essential for traffic safety education teachers through an extensive examination of literature and use of judges or raters to evaluate the results that could be used for making recommendations for statewide preparation and certification of teachers. It was a task that was beyond the capabilities and resources of the consortium. Little attempt was made to utilize representatives from professional associations or public schools other than those on the consortium and the teachers on the advisory committee.

# <u>Historical Background in</u> Traffic Safety

The original Driver Education Act passed in 1963 failed to specify preparation or certification requirements for teachers. Prior to the act, approximately 3,000 students were taking some type of driver education course. The act provided financial assistance to public schools if they offered a minimal course for eligible high school youth. Student participation began to increase as more schools started offering the program.

In 1967 legislation was passed which required all youth under 18 years of age to pass an approved driver education course as a pre-requisite to obtaining a driver's

license. The result was a tremendous increase in student enrollment. By 1970 approximately 63,000 youth between ages 16 and 18 were receiving a course in driver and traffic safety education.

In order to meet the demands for preparing teachers, short workshops and extension courses were offered at various localities around the state. Preparation was minimal and in most cases very inadequate.

Legislation in 1969 renamed the original act as
Traffic Safety Education and required that new instructors
be certified school teachers who had successfully completed
nine quarter hours in traffic and safety education and a
three hour course in a related field. As it turned out
this additional course generally came from the field of
Psychology. General requirements were:

- 1) General Safety Education 3 quarter hours
- 2) Basic Traffic Safety Education 3 quarter hours
- 3) Advanced Traffic Safety Education 3 quarter hours

In addition, teachers were required to:

- 1) be 21 years of age.
- 2) have a valid Washington driver's license.
- 3) have a good driving record.

- 4) have a Bachelors degree from an accredited college or university.
- 5) be emotionally and physically stable for the job.

Those who were already teaching were covered by a "grand-father's clause." 124

In 1974, changes in certification required new teachers to take a fourth course directly related to traffic safety education. The course most generally recommended dealt with the methods and techniques for teaching simulation and multiple-car range. Emphasis continued to be on preparation and certification requirements that were time-based. Little emphasis at the state level was being placed upon the use of competencies as a means of certifying and preparing teachers.

# Advancements in Traffic Safety Education

Since 1966, much has been accomplished to improve the quality of traffic safety education in Washington State. Following is a list of the major events which have helped to upgrade both program and teachers.

1) In 1968, using both state and federal funds, the Renton Project was undertaken to study the significance of a multi-phase program on

<sup>124</sup> State Superintendent of Public Instruction, op. cit., pp. B-1 and B-2.

- beginning drivers. Favorable results opened the way for additional programs and facilities to be made available.
- 2) During the same year a teaching minor in traffic safety education was established at Central Washington State College. Twenty-one quarter hours were offered which improved the quality of preparation for undergraduate students. Shortly thereafter a similar program was begun at Eastern Washington State College.
- 3) In 1969, a project was initiated to develop a new state curriculum guide which represented a drastic change from traditional curriculums. It used a systems approach to teaching traffic safety education based upon an analysis of the driving task. Completed in 1973, this guide provided an excellent source for teachers to use.
- 4) From 1970-1972 three multiple-car-driving ranges were developed near the three state colleges. In addition, three Aetna simulators were placed for use in these demonstration centers where high schools could establish multi-phase programs and teachers

- could be prepared in the latest methods and techniques.
- 5) During this time period over 90 teachers
  were prepared in the methods and techniques
  for teaching simulation and multiple-car
  range. This program was federally supported
  and provided scholarship assistance during
  the summer workshops for most of the teachers.
- 6) The scholarship program was continued which has provided summer workshops as well as regional workshops and seminars during the academic year to upgrade teachers and help them to develop and implement learning activity packages, local curriculum guides, learning modules, evaluative techniques, materials and media.
- 7) Recognizing the need to expand the traffic safety education program has brought experience to a number of teachers in the area of motorcycle safety instruction.
- 8) New program standards for the public schools have eliminated the time-based approach of 30 hours in the classroom and 6 hours in the laboratory and in their place have established a performance-based, individualized

approach to teaching. The state of
Washington has become the first state to
make such a break from the traditional
approach.

Even with all these advancements much still remains to be done to improve the quality of teacher preparation and certification. Requirements are still time-based and do not yet meet the recommendations as set forth in the 1971 Guidelines and Standards. Changes in the public school traffic safety education programs make it imperative that teacher preparation institutions improve their methods to meet the demands of education. Competencies need to be developed and validated so that better and more qualified teachers will be available for employment in individualized public school programs. order to motivate agencies that are involved in the preparation and certification of traffic safety education teachers, this study was initiated so that once the competency statements are made available steps could be made to incorporate them for use on a state wide basis.

#### SUMMARY

This chapter contained a review of materials

concerning the preparation and certification requirements

of driver education teachers in the United States and in

the state of Washington. Also reviewed were materials dealing with the accountability movement, competency-based teacher education and similiar studies both in general education and driver and traffic safety education.

The following chapter will discuss the procedures used in developing the instrument, and the methods used in analyzing the data.

#### CHAPTER III

#### METHODS OF PROCEDURE

The preceding chapter contained a review of literature concerning topics related to the development of competencies for traffic safety education teachers. In this chapter, the analysis and methods of procedure are presented. Chapter III is divided into three major areas. The first deals with the development of the instrument, the second is concerned with the technique for data collection, and in the third the method of analyzing the data is discussed.

#### DEVELOPMENT OF THE INSTRUMENT

The author's purpose in this study was to develop an extensive list of cognitive and psychomotor competency statements for traffic safety education teachers of the State of Washington.

The first step in the development of the instrument was the selection and development of the competency statements. In order to accomplish this task it was necessary to conduct an extensive review

of professional literature related to the topic. The two major sources were driver and traffic safety education materials and general education materials. A historical review was made concerning the preparation and certification requirements for driver education teachers as well as a study of accountability, competency-based teacher education and certification. Also, consideration was given studies of a similar type using raters or jurors for the purpose of validating information.

The driver and traffic safety education materials reviewed included course outlines, college level teacher preparation driver education textbooks, several state curriculum guides, research studies, high school driver education text books, dissertations, periodicals and pamphlets.

Five major sources were reviewed since they seemed to represent the major effort in developing competencies for driver and traffic safety education teachers.

These were:

- HumRRO, "Guide For Teacher Preparation in Driver Education," National Highway Traffic Safety Administration, U.S. Department of Transportation, Draft Copy, November 1971.
- 2) Illinois State University, "Driver Education Teacher Competencies," Dr. Laurance Quane, Project Director, 1974.

- 3) Traffic Safety Education Consortium, "Proposed Competencies for Beginning Teachers of Traffic Safety Education," Central Washington State College, Washington State, May, 1974.
- 4) Utah State Board of Education, "Driver Education Competencies," July, 1973.
- 5) North Carolina State Board of Education, "Competency Education and Assessment for Driver and Traffic Safety Education, 1972.

Additional sources utilized were pamplets, periodicals, textbooks and dissertations in the field of general education.

After reviewing the above materials, the next step in developing the instrument consisted of listing, comparing, combining, making deletions from or expanding upon the various skills and knowledges in order to formulate a list of behaviorally written competency statements. The competency statements as used in this study did not contain a criteria or a condition. After a conversation with Dr. Kent Gustafson, instructional ofjectives specialist, and additional consultation with the writer's committee chairman, it was determined that an initial study such as this would not require the statements to contain elements other than a state behavior. However, if these statements were to be used for purposes

of preparation and evaluation of teachers, the additional components would have to be added. This study represented an initial step toward that direction.

The third step was to place the statements into major groupings according to relationship. The seven major topics that were initially used for catagorizing the competency statements included safety education/accident prevention, maintaining professional competence, school and community relations, personal driving competence, curriculum development, instructional, and administrative.

The chief source for determining the major groupings was Norman Dodl's Taxonomy of Teacher Competencies as reported in "Strategies and Resources for Developing a Competency-Based Teacher Education Program" written by Robert Houston. 125 In addition, the writer's past experience in curriculum development in the field of traffic safety education and the major sources as previously listed were used in the selection of the major topics.

The competency statements were then submitted to the writer's doctoral committee for approval.

<sup>125</sup> Robert Houston, "Strategies and Resources for Developing a Competency-Based Teacher Education Program," New York State Education Department, Division of Teacher Education and Certification and Multi-State Consortium on Performance-Based Teacher Education, October 1972, p. 48.

# Selection of the Jury for Pilot Testing and Validation

After the statements were approved, they were pilot tested by a jury of five traffic safety education experts. The jury consisted of supervisors of traffic safety education form the state of Washington. They were selected because of their expertise and experience in the field and their close involvement in recent curriculum changes that have come about within the state. (See Appendix A for the names of the jury members.)

The specific criteria used for the selection of the jury members were as follows. They:

- had a regional assignment in the state and were aware of the problems, needs and responsibilities of teachers of traffic safety education.
- 2) had at least four years of high school teaching experience in traffic safety education.
- 3) had been involved in the inservice training of traffic safety education teachers on a state wide or regional basis for at least three years.
- 4) had demonstrated expertise in the field of traffic safety education by their leader-ship ability in developing and implementing

- a performance-based program at the state level for high school students of the state of Washington.
- 5) had taught courses for the preparation of traffic safety education teachers within the past three years and were aware of the new approaches in the field.
- 6) were currently state supervisors of traffic safety education with responsibilities for working with local schools in the promotion of traffic safety education.
- 7) had demonstrated expertise in teaching techniques in classroom, multiple-care-range, simulation and on-street methods of instruction.
- 8) were currently active in state and national professional organizations in the field of traffic safety education.
- 9) had been leaders in the development and/or implementation of the new traffic safety education curriculum guide for the state of Washington.
- 10) had regional responsibilities in traffic safety education working with administrators and teachers in compliance with new curriculum and administrative standards.

- 11) were currently involved in regional workshops helping teachers to develop evaluative
  instruments for class and laboratory
  instruction.
- 12) had assisted teachers in the development of local curriculum guides designed to meet state requirements.
- 13) were involved in the annual approval of all local traffic safety education programs.
- 14) were involved in the certification of traffic safety education teachers with the state of Washington.

The purpose of using a jury was to pilot test the competency statements and perform a validation by determining their relevancy and accuracy. In addition, they were asked to identify any duplications or omissions that may have existed. The criteria used for making judgments of each competency statement by the jury were the consideration of the following questions and statements.

1) Is the competency statement relevant for the traffic safety education teacher of Washington State? If so, please place an X in front of the statement on the line provided. In judging the relevancy of each statement you should keep in mind the following questions

which should guide your decision making.

- a) Is this a competency that might be needed by traffic safety education teachers?
- b) Is there a close association between the competency statement and the potential for success as a teacher of traffic safety education?
- 2) If you feel the statement is inaccurate, please make the necessary changes you feel will improve the statement. In judging the accuracy of each statement please keep in mind the following questions?
  - a) Is the statement a clear and accurate description of a competency that might be needed by traffic safety education teachers?
  - b) Does it agree with a known truth or fact?
- 3) If there are duplications, or you feel the statement should not be included, or should be included in another area, cross it out and make any necessary changes.
- 4) If you feel something has been omitted, please make the addition.

Each jury member was sent a letter explaining the purpose of the survey and a request for his assistance. He was then asked to return a statement in the selfaddressed envelope indicating his willingness or inability to participate. The jury member was allowed a one week period of time to respond to the letter. All of the jurors responded favorably within the alloted time period. instrument was mailed along with a brief statement of purpose and the instructions for its completion. The jury members were allowed a two week time period to respond to the survey. After two weeks, two of the five questionnaires had not yet been returned. A follow-up letter was sent en couraging their support in this endeavor. After a short time, the two remaining questionnaires were returned. (See Appendix A for the letter, statement of participation, instructions, the instrument and the follow-up letter.)

Upon receiving the instruments and after consultation with the writer's doctoral committee chairman, the statements were revised incorporating many of the suggestions offered by the jury members. The format of the instrument was changed to include the competency statements plus a method of ranking for each item on a five point scale ranging from unessential (one), unimportant (two), neither important nor unimportant (three), important (four), to essential (five).

### TECHNIQUE FOR DATA COLLECTION

## Selection of Raters

In order to obtain the desired data concerning those competencies considered essential for traffic safety education teachers in the state of Washington, it was necessary to utilize a panel of raters consisting of seven different speciality groups. Those selected were:

- Curriculum Workshop Team (traffic safety education teachers)
- 2) Washington Traffic Safety Education Association Executive Board Members (teachers who had leadership responsibilities but represented the interests of the professional association.
- 3) High School Administrators
- 4) College undergraduate students preparing to become traffic safety education teachers.
- 5) Traffic safety education program coordinators
- 6) Traffic safety education instructors(See Appendix B for names of participants.)

the college instructors. This group consisted of only three members since that was the number that could meet the criteria. The groups were selected because of their

close association to the field of traffic safety education and the valuable input the writer felt could be gained by their contribution.

The specific criteria used for the selection of the raters were as follows:

## Curriculum Workshop Team

- They were members of a team of teachers that assisted in the development or implementation of the new traffic safety education curriculum guide.
- 2) They were considered highly knowledgble of and were currently operating high school programs that were individualized and performance-based.
- 3) They were regionally located to cover the western, central and eastern portions of the state.
- 4) They represented a variety of sizes and types of high school programs.
- 5) They were currently involved as regional leaders in assisting teachers of traffic safety education develop evaluative instruments for use in the classroom and laboratory phases of individualized, performance-based high school programs.

- 6) They were selected because of their knowledge, experience, and demonstrated competence in teaching traffic safety education in the classroom, in the simulator, on the multiplecar driving range
- 7) They had at least three years teaching experience in traffic safety education at the high school level.
- 8) They were active participants in the
  Washington Traffic Safety Education Assoication.

# Washington Traffic Safety Education Executive Board

- 1) They were selected to represent their regions on the executive board and thus they represented all high school traffic safety education teachers and would be familiar with a variety of traffic safety education programs found within their region.
- They were active members of the Washington Traffic Safety Education Association.
- 3) They were teaching traffic safety education at the high school level and knowledgeable of and involved in developing and implementing performance-based programs. They were aware of the essential requirements necessary for

- teachers to be successful in teaching under this type of program.
- 4) They were considered competent teachers having demonstrated a high degree of skill in teaching novice drivers in the classroom, simulator, on the multiple-car driving range, and in the car.

#### Administrators

- 1) They were selected because of their regional location, representing large and small schools from the western, central, and eastern portions of the state.
- 2) They were selected because of their knowledge concerning the state and local programs of traffic safety education.
- 3) They had had at least three years experience in an administrative position.
- 4) They were selected because of their knowledge concerning the 1971 Guidelines and Standards for the preparation and certification of teachers in Washington State.
- 5) They were selected because they had worked directly with their teaching staff in developing their local competency-based traffic safety education programs.

## Traffic Safety Education Program Coordinators

- They were selected because of their knowledge and experience with the organization and administration of traffic safety education programs in Washington State.
- 2) They represented large and small schools and came from western, central, and eastern areas of the state.
- 3) They had experience in working with and evaluating teachers of traffic safety education.
- 4) They were knowledgable of and were currently coordinators of high school programs (some involving many schools, that were individualized and performance-based).
- 5) They were knowledgable concerning the new approaches recently taken in Washington State related to the teaching of traffic safety education.

# Undergraduate College Students

- They were working on or had recently completed an undergraduate minor in driver and traffic safety education.
- 2) They had taken a course in general safety education.
- 3) They had taken a course in the analysis of the driving task or the equivalent.

- 4) They had taken a course in the methods of teaching classroom and on-street instruction.

  They must have also had experience in teaching novice drivers in a dual-control car.
- 5) They had a course in the methods of teaching traffic simulation and multiple-car driving range instruction. They must also have had experience in teaching novice drivers in the simulator and on the multiple-car driving range.
- 6) They had completed or were enrolled in a course in organization and administration of traffic safety education.

# Traffic Safety Education Support Agencies

 They had the expertise, training, position and experience in their speciality field.

# College Instructors of Traffic Safety Education

- They were involved in the preparation of traffic safety education teachers in the state of Washington.
- 2) They represented the three state colleges that provided the majority of the preparation of traffic safety education teachers for the state of Washington.
- 3) They were familiar with the new performancebased curriculum at the high school level and

- recognized the type of preparation teachers needed to be successful.
- 4) They had taught in high school traffic safety education programs.
- 5) They had been involved in the development of the performance-based teacher preparation program being implemented at Central Washington State College.
- 6) They were experienced in the methods and techniques for teaching classroom, simulation, multiple-car range and on-street instruction.
- 7) They were familiar with the new state program and administrative standards.
- 8) They had experience in the evaluation of teacher performance in traffic simulation, multiple-car driving range and on-street methods of instruction.

The criteria were sent to Mr. Art Opfer, Supervisor of Transportation and Traffic Safety Education for
the state of Washington, for his assistance in making the
actual selection of the raters with the help of the other
state supervisors. A list of names was selected for each
of five specific speciality areas. College students were
selected with assistance from the college traffic safety
education instructors at Central Washington State College

and Eastern Washington State College. The selection of the members for the college instructor group was made by the writer.

Although those selected came from different portions of the state, and from different sized schools, it was not intended that they should represent the opinion of all other perople who might be associated with a particular group. Alternates were selected with the exception of the college instructor group in the event that some

All members of the jury as well as all members

of the panel of raters were selected from the state of

Washington. The reason no other state was represented is

due to the unique program of traffic safety education

that existed in Washington.

Recent changes in program standards along with

the innovative approaches in curriculum development had

elevated the state of Washington into a leadership position.

The program was a performance-based individualized approach

to teaching driver and traffic safety education. There

were no time restrictions such as 30 hours of classroom

instruction and 6 hours of laboratory instruction as found

in all other states. Completion of the course was dependent upon the students' ability to perform specific

competencies as described in performance objectives.

Since this study was concerned with the competencies needed by traffic safety education teachers in Washington State, and due to the fact that no other state had developed this type of program, it was felt by the writer that only persons residing in the state and having worked in its development or having some knowledge about the program should have been involved in the judging or rating of the competency statements.

After receiving the names of those selected by
the supervisors, a letter was mailed explaining the author's
purpose of the survey and requesting their assistance. The
only exception to this was with the college student group,
in which case the instruments were sent directly to the
college instructors at Eastern Washington State College and
Central Washington State College where they were personally
distributed to the selected students, collected, and returned
to the writer.

The additional members of the rater panel were asked to return a statement in a self-addressed stamped envelope indicating their willingness or inability to participate. The raters were allowed a one week period to respond to the letter. By the end of the week, all but seven had been returned. A follow-up letter was mailed asking for their prompt reply and the deadline was extended for an additional week. At the end of the second week, all

seven had been returned. Five of the raters indicated their inability to participate in the study. For the five negative responses, alternates were selected and letters were mailed seeking their participation. (See Appendix B for letters and participation statement.)

After all members had agreed to participate, the instrument containing a brief statement of purpose and instructions for completing the questionnaire was mailed. The raters were allowed a two week time period to respond to the questionnaire. At the end of the alloted time, 18 of the surveys had been returned which necessitated sending 25 follow-up letters. Following an additional two week period, all but six had been returned. A second follow-up letter was mailed along with another instrument. All but two were returned following the second letter. Alternates were selected and a similiar process was conducted. (See Appendix B for instrument and letter.)

The criteria used for rating the competency statements were as follows:

- Unessential No traffic safety education instructor should be required to perform this competency.
- 2) <u>Unimportant</u> In general, traffic safety education instructors would not need to perform this competency to be a successful teacher.

- 3) Neither Important or Unimportant In general, the value of the competency statement regarding successful teaching is questionable and may or may not be of importance to successful teaching.
- 4) Important In general, the competency statement is necessary for successful teachers of traffic safety education.
- 5) Essential All traffic safety education instructors should be required to perform this competency.

#### METHOD OF ANALYSIS

After all questionnaires were returned and tabulated, the data were analyzed to determine the following information:

- Those statements that were considered by the panel of raters as essential for traffic safety education teachers and were eligible for automatic acceptance.
- Those statements that were considered by the panel of raters as being unessential and not eligible for automatic acceptance.
- 3) Those statements that were not automatically accepted or not accepted as determined by the panel or raters but would be considered

for possible acceptance if the mean scores of four of the seven groups was high enough to meet the criteria level.

- 4) The mean score of each competency statement as determined by the panel of raters. (See Appendix C.)
- 5) The mean scores of each group and all groups combined for each category of competency statements.

Information for statements 1-3 came from a calculation of the mean scores of individual competency statements rated by all seven speciality groups within the panel. This was achieved by adding the ratings assessed each competency statement unessential (1), unimportant (2), neither unimportant nor important (3), important (4), and essential (5) and dividing by the number of raters in each group and in the total panel (51).

In order to obtain the mean scores of each group and for all groups combined for each competency statement, a CDC 6500 computer located on the Michigan State University campus was used. For each statement, the rankings for each panel member were keypunched on computer cards along with a group number for identification purposes. Although there were other programs available for obtaining

mean scores, it was felt by the writer after discussion with a research consultant, that it would be advisable to also obtain an individual count and the standard deviation for each statement. The best program of obtaining all this data was considered to be the CISSR System - Analysis of Contingency Tables (ACT).

In order to be considered essential and acceptable by the writer, it was required that each statement have a mean score ranging from 4.0-5.0. Those statements that were found within the range were considered for automatic acceptance.

To be considered unessential and not acceptable by the writer required the statements to have mean scores ranging from 1.0-2.0.

Competency statements with mean scores greater than 2.0 but less than 4.0 were considered for possible acceptance or non acceptance after analyzing the individual group ratings. Recognizing that all groups were not equal in knowledge and experience in traffic safety education, those groups more directly assoicated to traffic safety education received greater priority when considering the questionalbe statements. If it was found, that four of the seven groups rated the statement above 4.0 then the statement was considered eligible for acceptance.

Mean scores for each group were also determined for each of the major categories as well as for the instructional sub-categories. In addition, high and low scores were given as well as the ranking of categories by mean scores.

#### SUMMARY

In this chapter were presented the methods and procedures used to develop the instrument, collect, and analyze the data. Concerning the development of the instrument, it was indicated that the competency statements used in the study were developed from general education and driver education materials and sources. A jury of five traffic safety education supervisors from the state of Washington was used to pilot test and validate the material using a prescribed criteria. A panel of raters consisting of 51 individuals from seven different speciality areas related directly or indirectly to traffic safety education was used to rate the statements on a five point scale.

The data were analyzed by computing the mean scores of each competency statement as determined by the total panel of raters as well as by individual groups within the panel.

#### CHAPTER IV

#### ANALYSIS OF THE DATA

Chapter III explained the process used to develop the instrument, the survey techniques and the method of analyzing the data.

In this chapter the data collected are presented.

The order for discussion will be as follows:

- Those statements that were considered by the panel of raters as essential for traffic safety education teachers and were eligible for automatic acceptance.
- Those statements that were considered by the panel of raters as being unessential and not eligible for automatic acceptance.
- 3) Those statements that were not automatically accepted or not accepted as determined by the panel of raters but would be considered questionable and would receive close examination.
- 4) The mean scores of each group and all groups combined for each category of competency statements.

The author's purpose of the study was to develop an extensive list of cognitive and psychomotor competency statements for traffic safety education teachers of the state of Washington. Following a review of related literature, knowledge and skills considered important were formulated into a list of competency statements. These statements were grouped into seven major categories according to relationship. Data were obtained from a questionnaire involving a listing of competency statements. Judges were asked to evaluate each statement as to accuracy and relevancy to determine content validity and to perform a pilot test. After making changes according to suggestions from the jury, the competency statements were then sent to a panel of raters. Seven speciality areas were represented in the panel. The raters were asked to rank the statements on a five choice scale ranging from unessential to essential. For each competency statement, the mean score was computed for each of the seven speciality In addition, an over-all mean score for the total panel of raters was determined. A range of over-all mean scores was designed to assist in the selection or non selection of each statement. Those statements that were questionable were examined in greater depth in order to better evaluate their possible acceptance or non acceptance.

#### DATA RESULTS

## Data Concerning Statements Automatically Accepted

The data concerning the competency statements that were automatically accepted and considered essential for traffic safety education teachers of Washington State were obtained from mean scores derived by the panel of To be considered essential and automatically accepted, each competency statement was required to have a mean score that was 4.0 or above. Those statements with mean scores less than 4.0 were closely examined to see if the mean scores of at least four of seven groups were 4.0 or above to be eligible for acceptance. Considering the differences that existed between groups regarding experinence and knowledge it was felt by the writer that a close examination of each statement below 4.0 was necessary. It was also recognized that due to the small size of each group, it was quite possible that a low ranking by one member could alter the mean score of that group thus effecting the chance for acceptance.

Table 1 indicates the competency statements automatically accepted because of their high mean scores (4.0 or greater) as determined by the panel of raters. The mean scores are presented by individual competency statement number according to major categories. A complete listing of the competency statements indicating those that

TABLE 1.--Competency Statements with Mean Scores Between 4.0 - 5.0.

Cate	gory	Competency Statement	Mean Score
I. S	Safety Education/Accident	1	4.14
	Prevention Competencies	2	4.04
	•	4	4.12
		1 2 4 5 6 7	4.06
		6	4.63
		7	4.73
		9	4.12
		11	4.16
		13	4.10
		14	4.46
I.	Personal Driving Performance	1	4.59
	Competencies	2	4.65
		1 2 3 4 5 6 7 8	4.67
		4	4.43
		5	4.27
		6	4.80
		7	4.80
		8	4.53
		9	4.20
		10	4.63
II.	Curriculum Development	1	4.63
	Competencies	2	4.49
		3	4.71
		1 2 3 4 5 6 7 8 9	4.41
		5	4.78
		6	4.51
		7	4.65
		8	4.57
			4.29
	•	· 10	4.63
		11	4.76
		12	4.41
		13	4.43
		14	4.29
		15	4.41
		16	4.53
		17	4.35
		18	4.31
		19	4.39
		20	4.55

TABLE 1.--Continued

Cate	egory	Competency Statements	Mean Score
	Curriculum Development Competencies (Continued)	21 23 24 25 29 34 35 36 37 38 40	4.39 4.00 4.18 4.47 4.00 4.45 4.38 4.25 4.76 4.67 4.10
IV.	Instructional Competencies A. Common to Classroom and Laboratory	1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 24 25 26	4.75 4.73 4.78 4.47 4.31 4.52 4.33 4.57 4.41 4.51 4.51 4.59 4.41 4.59 4.41 4.51 4.53 4.51 4.53 4.51 4.53
	B. Classroom	1 2 3 4 5	4.78 4.22 4.10 4.25 4.02

TABLE 1.--Continued

Category		Competency Statements	Mean Score
C.	Laboratory - Common to all	1 2 3 4 5 6 7 8 10 11 12 13 14 15 17 18 19 20 21 22	4.29 4.48 4.33 4.45 4.63 4.27 4.63 4.14 4.29 4.31 4.92 4.45 4.48 4.48 4.50 4.28 4.32 4.30 4.36
D.	Unique to Traffic Simulation	1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 17 18 19 21	4.12 4.24 4.14 4.02 4.31 4.35 4.22 4.33 4.41 4.65 4.43 4.18 4.53 4.00 4.16 4.04 4.33
E.	Unique to Multiple- Car Range	1 2 3 4	4.37 4.43 4.57 4.73

TABLE 1.--Continued

Category	Competency Statements	Mean Scores
Unique to Multiple- Car Range (Continued)	5 6 8 11 12 13	4.69 4.78 4.04 4.00 4.02 4.51
F. Unique to On-Street	1 2 3 4 5 6 7 9 10 11 12 13	4.67 4.49 4.76 4.29 4.25 4.76 4.29 4.65 4.86 4.73 4.47 4.84
V. Administrative Competencies	1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24	4.25 4.63 4.57 4.47 4.10 4.43 4.25 4.31 4.39 4.35 4.55 4.75 4.69 4.75 4.59 4.59 4.55 4.51 4.63 4.12

TABLE 1.--Continued

		·	
Catego	ory	Competency Statements	Mean Scores
	dministrative Competencies Continued)	25 26 27 28	4.43 4.25 4.41 4.49
	School/Community Relations Competencies	1 2 3 4 5 6 7 8 9	4.43 4.31 4.59 4.33 4.31 4.59 4.39 4.35 4.08 4.73
VII.	Maintaining Professional Competence	1 2 3 4 5 6 7 8	4.64 4.40 4.58 4.06 4.58 4.20 4.32 4.02

were automatically accepted, questionable but accepted, questionable but not accepted, and those automatically not accepted has been prepared for the convenience of the reader and can be found in Appendix D.

The instrument sent to the panel of raters contained 211 competency statements. After analyzing the data it was determined that 188 or 89 percent of the total number had a mean of 4.0 or greater. These were automatically accepted without requiring special consideration because of their high mean scores. Since they were given high ratings it seemed to indicate that the panel members considered those statements to be essential qualifications for successful teaching.

In reviewing competency statements by category, the following were automatically accepted: Safety Education/accident prevention - 67 percent (statements 1, 2, 4, 5, 6, 7, 9, 11, 13, 14), Personal Driving Performance - 100 percent (statements 1, 2, 3, 4, 5, 6, 7, 8, 9, 10), Curriculum Development - 78 percent (statements 1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15, 16, 17, 18, 19, 20, 21, 22, 23, 24, 25, 29, 34, 35, 36, 37, 38, 40), Instructional: common to both classroom and laboratory - 96 percent (statements 1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15, 16, 17, 18, 19, 20, 21, 22, 24, 25, 26), Instructional: classroom - 100 percent

(statements 1, 2, 3, 4, 5), Instructional: laboratory common to all - 91 percent (statements 1, 2, 3, 4, 5, 6, 7, 8, 10, 11, 12, 13, 14, 15, 17, 18, 19, 20, 21, 22), Instructional: unique to traffic simulation - 90 percent (statements 1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15, 17, 18, 19, 21), Instructional: unique to multiple-car range - 77 percent (statements 1, 2, 3, 4, 5, 6, 8, 11, 12, 13), Instructional: unique to on-street - 92 percent (statements 1, 2, 3, 4, 5, 6, 7, 9, 10, 11, 12, 13), Administrative - 100 percent (statements 1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15, 16, 17, 18, 19, 20, 21, 22, 23, 24, 25, 26, 27, 28), School/Community Relations - 100 percent (statements 1, 2, 3, 4, 5, 6, 7, 8, 9, 10), Maintaining Professional Competence - 100 percent (statements 1, 2, 3, 4, 5, 6, 7, 8).

Also classified according to major categories, the following number of competency statements and percentages were automatically accepted:

- 1) Safety Education/Accident Prevention 10 of 15 for 67 percent
- 2) Personal Driving Performance 10 of10 for 100 percent.
- Curriculum Development 31 of 40 for78 percent.

- 4) Instructional 91 of 100 for 91 percent.
  - a) Common to both classroom and laboratory -25 of 26 for 96 percent.
  - b) Classroom 5 of 5 for 100 percent.
  - c) Laboratory common to all 20 of 22 for91 percent.
  - d) Unique to traffic simulation 19 of21 for 90 percent.
  - e) Unique to multiple-car range 10 of 13 for 77 percent.
  - f) Unique to on-street 12 of 13 for 92 percent.
- 5) Administrative 28 of 28 for 100 percent.
- 6) School/Community Relations 10 of 10 for 100 percent.
- 7) Maintaining Professional Competence 8 of8 for 100 percent.

#### Data Concerning Statements Considered Unessential

As determined prior to the study, those competency statements with mean scores between 1.0 and 2.0 would be automatically not accepted. According to the results of the ratings, there were no statements that fell within this range.

## Data Concerning Statements Considered Questionable

Twenty-three competency statements were reviewed carefully to determine if they should be accepted or not accepted. Individual group mean scores were considered as a criteria for acceptance. If four of the seven groups had mean scores above 4.0 then the statement was accepted. However, the experience and knowledge about traffic safety education programs was also considered with the highest priority going to those groups most directly associated to the discipline. Also of importance was the specific skill or knowledge being considered as well as the size of the group that had responded to a particular statement.

After reviewing the 23 statements, it was determined that six more were considered as acceptable and were included with the original list. Thus, the total number of competency statements deemed essential and acceptable for teachers of traffic safety education had grown to 194 or 92 percent of the total number originally submitted.

Table 2 contains a listing of the questionable statements with mean averages less than 4.0. Those accepted after close examination are identified with an asterisk.

Of the statements considered questionable, six or 3 percent were found to be acceptable and those that were not

TABLE 2.--Questionable Competency Statements with Mean Scores Between 2.0 - 3.99.

Categ	egory		gory		Competency Statements	Mean Score
I.		Fety Education/Accident evention Competencies	3 8 10 12 15	3.73 3.86 3.98* 3.82 3.56		
III.		criculum Development npetencies	22 26 27 28 30 31 32 33	3.78 3.49 3.76 3.73 3.71 3.74 3.22 3.08 3.51		
IV.	Ins	structional Competencies				
	Α.	Common to Classroom and Laboratory	23	3.96*		
	С.	Laboratory - Common to all	9 16	3.98* 3.96		
	D.	Unique to Traffic Simulation	16 20	3.80 3.92*		
	E.	Unique to Multiple- Car Range	7 9 10	4.19** 3.98 3.94*		
	F.	Unique to On-Street	8	3.98*		

<sup>\*</sup>Accepted after close examination.

<sup>\*\*</sup>Not accepted because of insufficient responses due to a typing error.

accepted made up the remaining 8 percent (17 statements). One of the statements was not accepted due to a typing error which omitted the rating scale 1-5. This error resulted in an insufficient number of responses.

For those competency statements considered questionable, a close examination was made and those that were accepted are reported by category as follows: Safety Education/Accident Prevention - (statement 10), Personal Driving Performance - (statement none), Curriculum Cevelopment - (statement none), Instructional: common to classroom and laboratory - (statement 23), Instructional: classroom (statement none), Instructional: laboratory - common to all (statement 9), Instructional: unique to traffic simulation - (statement 20), Instructional: unique to multiple-car range - (statement 10), Instructional: unique to multiple-car range - (statement 8), School/Community Relations - (statement none), Maintaining Professional Competence - (statement none).

Also following close examination of the questionable statements and according to major categories, the number and percent of acceptable competency statements had increased to:

- 1) Safety Education/Accident Prevention 11
   of 15 for 73 percent.
- 2) Personal Driving Performance 10 of 10 for 100 percent.

- 3) Curriculum Development 31 of 40 for78 percent.
- 4) Instructional 96 of 100 for 96 percent.
  - a) Common to both classroom and laboratory -26 of 26 for 100 percent.
  - b) Classroom 5 of 5 for 100 percent.
  - c) Laboratory common to all 21 of 22 for 95 percent.
  - d) Unique to traffic simulation 20 of21 for 95 percent.
  - e) Unique to multiple-car range 11 of13 for 85 percent.
  - f) Unique to on-street 13 of 13 for 100 percent.
- 5) Administrative 28 of 28 for 100 percent.
- 6) School/Community Relations 10 of 10 for 100 percent.
- 7) Maintaining Prefessional Competence 8 of 8 for 100 percent.

In reviewing the seven categories it was also determined that a higher percentage of competency statements was selected from Personal Driving Performance (100 percent), Instructional (96 percent), Administrative (100 percent), School/Community Relations (100 percent), and Maintaining Prefessional Competence (100 percent).

Those categories with the lowest percentage of selection were Safety Education/Accident Prevention (73 percent) and Curriculum Development (78 percent).

## Data Concerning Mean Scores of Each Group

Information regarding the mean scores of each group as well as for the total panel of raters was calculated and can be found in Appendix C.

## Mean Scores by Category

Mean scores were calculated for each of the seven categories and they can be found in Table 3. The highest mean score as determined by the panel of raters was for Category II, Personal Driving Competence (4.56). This would seem to indicate that the ability to perform driving skills that would be taught to students was considered by the panel of extreme importance for successful teachers. Safety Education/Accident Prevention received the lowest mean score as a category (4.10). This would seem to imply that as a category, this was not considered as important for successful teachers of traffic safety education.

An examination of the instructional sub-categories revealed that on-street competencies were rated more important to the success of a traffic safety education teacher (4.54). This could be expected since this type

TABLE 3.--Category Mean Scores by Individual Groups.

Cate	cory	Gr	oup	Mean Score
Ι.	Safety Education/ Accident Prevention	<ul><li>2.</li><li>3.</li><li>4.</li><li>5.</li><li>6.</li></ul>	Teachers Professional Association Administrators College Students Program Coordinators Support Agencies College Instructors Total	3.98 4.03 4.07 4.29 4.12 4.03 4.31 4.10
II.	Personal Driving Competencies	<ul><li>2.</li><li>3.</li><li>4.</li><li>5.</li><li>6.</li></ul>	Teachers Professional Association Administrators College Students Program Coordinators Support Agencies College Instructors Total	4.63 4.73 4.76 4.50 4.24 4.53 4.50 4.56
III.	Curriculum Develop- ment Competencies	<ol> <li>3.</li> <li>4.</li> <li>5.</li> <li>6.</li> </ol>	Teachers Professional Association Administrators College Students Program Coordinators Support Agencies College Instructors Total	4.31 4.23 4.32 4.38 4.18 4.04 4.43 4.24
IV.	Instructional Competencies	2.	Teachers Professional Association Administrators	4.38 4.40 4.31

TABLE 3.--Continued

Categ	tegory Group		Mean Score
IV.	Instructional Competencies (Continued)	4. College Students 5. Program Coordinators 6. Support Agencies 7. College Instructors	4.47 4.35 4.28 4.39
	A. Common to Class- room and Labora- tory	1. Teachers 2. Professional Association 3. Administrators 4. College Students 5. Program Coordinators 6. Support Agencies 7. College Instructors Total	4.36 4.50 4.34 4.52 4.46 4.42 4.28 4.50 4.42
	B. Classroom	<ol> <li>Teachers</li> <li>Program         Coordinators</li> <li>Administrators</li> <li>College         Students</li> <li>Program         Coordinators</li> <li>Support Agencies</li> <li>College         Instructors</li> </ol> Total	4.47 4.23 4.20 4.43 4.24 4.15 4.13 4.27
	C. Laboratory- Common to all	1. Teachers 2. Professional Association 3. Administrators 4. College Students 5. Program Coordinators 6. Support Agencies 7. College Instructors Total	4.42 4.42 4.37 4.42 4.29 4.24 4.43 4.35

TABLE 3.--Continued

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TABLE 3.--Continued

Categ	egory Group		Mean Score
v.	Administrative Competencies Continued	5. Program Coordinators 6. Support Agencies 7. College Instructors Total	4.51 4.52 4.58 4.44
VI.	School/Community Relations Competencies	1. Teachers 2. Professional Association 3. Administrators 4. College Students 5. Program Coordinators 6. Support Agencies 7. College Instructors Total	4.66 4.38 4.01 4.39 4.40 4.70 4.33 4.42
VII.	Maintaining Professional Competence	<ol> <li>Teachers</li> <li>Professional         Association</li> <li>Administrators</li> <li>College Students</li> <li>Program         Coordinators</li> <li>Support Agencies</li> <li>College         Instructors</li> </ol> Total	4.60 4.30 4.44 4.19 4.18 4.55 4.50 4.35

of instruction is more common and has been part of the traffic safety education program since the beginning. Since the real test of driving ability takes place onstreet in traffic conditions, it stands to reason that competencies in this area would be considered extremely important. The lowest mean scores were received by the classroom (4.27) and traffic simulation (4.27). These results would indicate that these sub-categories were considered less crucial and that mastery of competencies identified within were not as important as the other instructional phases.

By category the mean scores were calculated and are presented in rank order from high to low as follows:

1)	Personal Driving -	4.56
2)	Administrative -	4.44
3)	School/Community -	4.42
4)	Instructional -	4.36
5)	Maintaining Professional Competence -	4.35
6)	Curriculum Development -	4.24
7)	Safety Education/Accident Prevention -	4.10
Ins	truction sub-categories were ranked as f	ollows:
1)	Unique to on-street -	4.54
2)	Common to classroom and laboratory -	4.42
3)	Laboratory - common to all -	4.35

4)	Unique to multiple-car range -	4.33
5)	Classroom -	4.27
6)	Unique to traffic simulation -	4.27

#### Category Mean Scores by Individual Groups

The writer carefully reviewed the group mean scores for each of the seven categories as well as the six sub-categories for purpose of identifying possible scoring patterns. The high and low mean scores are reported below. Table 3 contains a complete listing of all mean scores by individual groups as well as for each category.

## I. Safety Education/Accident Prevention

- 1) High college instructors (4.31)
- 2) Low teachers (3.98)

# II. Personal Driving Performance

- 1) High administrators (4.76)
- 2) Low program coordinators (4.24)

# III. Curriculum Development Competencies

- 1) High college instructors (4.43).
- 2) Low support agencies (4.04)

# IV. <u>Instructional Competencies</u>

- 1) High college students (4.47)
- 2) Low support agencies (4.28)

- A) Common to Classroom and Laboratory
  - 1) High teachers and college instructors (4.50)
  - 2) Low support agencies (4.28)
- B) Classroom
  - 1) High teachers (4.47)
  - 2) Low college instructors (4.13)
- C) Laboratory Common to all
  - 1) High college instructors (4.43)
  - 2) Low support agencies (4.24)
- D) Unique to Traffic Simulation
  - 1) High college students (4.42)
  - 2) Low support agencies (4.07)
- E) Unique to Multiple-Car Range
  - 1) High program coordinators (4.45)
  - 2) Low administrators (4.12)
- F) Unique to On-Street
  - 1) High college students (4.68)
  - 2) Low administrators (4.44)
- V. Administrative Competencies
  - 1) High teachers (4.61)
  - 2) Low administrators (4.09)
- VI. School/Community Relations
  - 1) High support agencies (4.70)
  - 2) Low administrators (4.01)

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2 + 4 **%** )

# VII. Maintaining Professional Competencies

- 1) High teachers (4.60)
- 2) Low college students (4.19) and program coordinators (4.18)

An examination was also made of the two categories with the lowest percentage of accepted competency statements: Safety Education/Accident Prevention (73 percent) and Curriculum Development (78 percent).

In the Safety Education/Accident Prevention category, 27 percent (4) of the statements were rejected. The speciality group with the highest mean scores for those statements was the College Instructors (4.25). The Support Agencies group considered these statements less important for successful teachers of traffic safety education (3.41).

Twenty-two percent of the Curriculum Development statements were not accepted as being essential for traffic safety education teachers. College Instructors had the highest ratings (4.19) while the lowest mean score was found with the Support Agencies group (3.15). The majority (7) of the statements not accepted were related to federal and state relationship to highway safety or to the highway transportation system. Although seemingly important, the panel of raters did not feel that these competencies were as necessary for success as a traffic safety education teacher.

### SUMMARY

In Chapter IV was presented the analysis of the data. Individual competency statement mean scores were used as the method of selecting acceptable statements for inclusion in the list for teachers of traffic safety education for Washington State. Statements automatically accepted were identified along with those considered questionable. In addition, mean scores were considered for each category as well as individual group high and low ratings.

The next chapter will include a summary, conclusions, recommendations, recommendations for future research, and discussion.

#### CHAPTER V

## SUMMARY, CONCLUSIONS, RECOMMENDATIONS

Chapter IV presented an analysis of the data.

This chapter contains a summary of the study, conclusions, recommendations, recommendations for future research, and a discussion.

#### SUMMARY

# Statement of the Purpose

The author's purpose of this study was to develop an extensive list of cognitive and psychomotor competency statements for traffic safety education teachers of the state of Washington. As a result of this study, Washington State colleges that are currently involved in the preparation of traffic safety education teachers would have specific cognitive and psychomotor statements to guide development and/or re-development of the curriculum for pre-service and in-service education. A uniform guideline would now be available to institutions of higher education in the state of Washington. In addition, information would be available to the State Superintendent

of Public Instruction to assist in revising the criteria for the certification of traffic safety education teachers. Measurable statements of performance would be the basis for certification. Finally, traffic safety education would now be able to meet the intent of the Washington State Board of Education when the 1971 Guidelines and Standards were adopted.

In conducting this study, the writer attempted to obtain the following information:

- Those statements that were considered by the panel of raters as essential for traffic safety education teachers and eligible for automatic acceptance.
- 2) Those statements that were considered by the panel of raters as being unessential and not eligible for automatic acceptance.
- 3) Those statements that were not automatically accepted or not accepted but were termed questionable by the panel of raters but would be considered for possible acceptance if the mean scores of four of the seven groups was high enough to meet the criteria.
- 4) The mean scores of each group as well as for the panel of raters for each competency statement.

5) The mean scores of each group and all groups combined for each category of competency statements.

# Methods, Techniques, and Data Used

A review of related literature was conducted in general education as well as in driver education. In driver education, discussion centered around a historical review of the preparation and certification recommendations in the United States as well as for the state of Washington. In both general education and driver education, the writer reviewed the areas of accountability, competency-based teacher education as well as similar types of studies.

The review in both areas came from pamphlets, periodicals, dissertations and textbooks while the literature review for driver education also came from college course outlines, college level teacher preparation textbooks, high school textbooks, curriculum guides and research studies. The major sources used came from the following:

 HumRRO, "Guide for Teacher Preparation in Driver Education," National Highway Traffic Safety Administration, November 1971.

- 2) Illinois State University, "Driver Education Teacher Competencies," Dr. Laurance Quane, Project Director, 1974.
- 3) North Carolina State Board of Education, "Competency Education and Assessment for Driver and Traffic Safety Education," 1972.
- 4) Utah State Board of Education, "Driver Education Competencies," July 1973.
- 5) Traffic Safety Education Consortium, "Proposed Competencies for Beginning Teachers of Traffic Safety Education," Central Washington State College, Washington State, May 1974.

Following the review of literature, the writer combined, added to, made deletions from, and expanded upon the knowledges and skills in order to formulate a list of behaviorally written competency statements. These statements were then placed into major groupings according to relationship. The listing was then sent to a group of jurors who were asked to judge the accuracy and relevancy of material presented to determine content validity and perform a pilot test. They were also asked to look for omissions and delete any material they felt was not accurate or relevant as competencies for traffic safety education teachers in Washington.

After making revisions, the competency statements were sent to a panel of raters from Washington State who had met a prescribed criteria. They represented seven speciality areas related directly or indirectly to traffic safety education. The raters were asked to rank each competency statement on a five choice scale ranging from unessential to essential. Mean scores were used to determine those statements that were considered essential for teachers of traffic safety education in the state of Washington.

# Major Findings

The following major findings were noted:

- Of the list of 211 competency statements submitted to the panel of raters, 188 or 89 percent had a mean of 4.0 or greater. These were automatically accepted as being essential.
- 2) No statements were considered by the panel of raters as being unessential with mean scores between 1.0 and 2.0.
- 3) Twenty-three competency statements or 11 percent had mean scores between 2.1 and 3.99. These were considered questionable and were carefully reviewed for possible acceptance or non acceptance. Six (3)

- percent) of the questionable statements were accepted while 17 (8 percent) were found not to meet the criteria and were not included in the final list.
- 4) One hundred ninety-four competency statements
  (92 percent) of the original 211 were accepted
  as being essential for traffic safety education instructors in Washington State.
- 5) The highest group mean score for any of the seven categories was found to be 4.56 for Personal Driving Performance. The lowest group mean score was recorded by Category I, Safety Education/Accident Prevention (4.10).
- 6) Within the sub-categories, on-street competencies recieved the highest mean score (4.54) with traffic simulation and classroom both receiving the lowest ratings (4.27).
- 7) Some speciality groups recorded lower mean scores more frequently than others. The support agencies group had the lowest mean score for Curriculum Development (III) and Instructional Competencies (IV) categories. This could be attributed to lack of direct contact with the traffic safety education program. Administrators had low mean scores on categories V (Administrative Competencies) and VI (School/Community Relations).

### CONCLUSIONS

The follwoing conclusions are based upon the data obtained:

- 1) The 188 competency statements considered essential by the panel of raters should be included as guidelines for the preparation and certification of pre-service and inservice teachers of traffic safety education for Washington State.
- 2) The additional six competency statements found acceptable from the questionable list should also be included as guidelines.
- 3) Major emphasis should be placed on superior driving knowledge and ability as a requisite for preparation and certification of traffic safety education teachers.
- 4) The need exists to emphasize the mastery of competencies for teaching on-street as these were considered the most essential by the panel or raters.
- 5) Knowledge of federal and state involvement in highway safety, construction, maintenance, and planning does not seem to be considered essential for teachers of traffic safety education.

#### RECOMMENDATIONS

Based upon the findings of this study, the following are recommended:

- 1) Since judges and raters were used only from the state of Washington, results pertain to the population surveyed. Other states or other curriculum areas within the state of Washington should not use the results for the development of competencies for the preparation and certification of teachers.
- 2) The Washington Superintendent of Public Instruction should review the list of competency statements as developed by the study and utilize it as a basis for the certification and/or recertification of traffic safety education teachers in Washington State.
- 3) Colleges within the state of Washington currently involved in the preparation of both pre-service and in-service teachers should review the competency statements as developed by tis study for use as a guideline for the development and/or re-development of curriculum for traffic safety education.

- 4) The Superintendent of Public Instruction and Colleges and Universities from Washington State should strongly consider for possible usage those statements not found acceptable by the panel of raters. Although not meeting the criteria level for this study, most received fairly high mean scores and should prove to be of importance as part of preparation and certification programs.
- 5) Colleges in Washington currently preparing traffic safety education teachers, should now move forward in the development and implementation of competency-based teacher education programs.
- 6) School districts desiring a list of competency statements as a guideline describing performances expected of traffic safety educators should utilize this improtant information.
- 7) Traffic safety education teachers desirous of improving their own competency level can follow this list as a guideline.
- 8) The Washington Driver and Traffic Safety
  Education Association should closely examine
  the competency statements and use them as a
  guideline for setting recommendations for
  the preparation and certification of teachers.

9) A self-evaluative instrument should be developed and tried using the competency statements that have evolved from this study.

### RECOMMENDATIONS FOR FUTURE RESEARCH

As a result of this study, the following recommendations are made for future research:

- 1) There is a need to send the list of competency statements to a national panel of experts in the field of driver and traffic safety education to compare the results of their rating to the panel from Washington.
- 2) There is a need to conduct a similar study using a panel of raters made up of the seven speciality groups from outside the state of Washington and compare the results to that found from within the state.
- 3) A need exists to select criteria and establish conditons by which the competency
  statements can be measured and then field
  tested so that they can be used for certifying
  teachers of traffic safety education.
- 4) There is a need to conduct a study comparing competency-based and credit-based teacher preparation programs in traffic safety

- education. The results should indicate the most effective method and would be helpful for future program planning.
- 5) On-site evaluative instruments need to be developed for assessing the knowledge and skill competencies as determined by this study.

### DISCUSSION

After conducting this study, the writer has become more convinced of the need to behavioralize teacher preparation curriculums.

Teacher preparation programs too often are not meeting the needs of students, duplications exist, many are forced through the same mold. Competencies deemed necessary for success in real world situations are seldom identified in written form and used to adequately assess the abilities of teacher candidates.

Improvement has come about over the past fortyfive years in regards to the preparation and certification
of driver and traffic safety education teachers, but much
more still needs to be done. It is the contention of the
writer that once competency statements have been identified
they must be put into use, evaluated and revised as necessary to assure that maximum learning will take place, needs

will be met and assessment of performance can be made to assure that quality teachers will be prepared and certified.

As a word of caution, the writer strongly believes that a list of competency statements should not be the only source used for evaluating the success of teachers. It was not intended by the writer that colleges, professional associations, school districts, or The Superintendent of Public Instruction in the state of Washington use the statements as found from this study as the sole method for preparing or certifying teachers. These competency statements should be used as a guideline but certainly in combination with other evaluative techniques.

In Washington State much progress has taken place since 1968 in traffic safety education. However, much work still remains to be done in preparing and certifying teachers. It is hoped that those responsible for the preparation and certification of traffic safety education teachers will utilize the competency statements to guide their revision of curriculums and policies so that only the best and most qualified teachers will be teaching the youth of Washington how to perform safely and efficiently within the highway transportation system.

**APPENDICES** 

# APPENDIX A

JUROR GROUP PARTICIPANTS, LETTER,
PARTICIPATION STATEMENT, FOLLOW-UP
LETTER, INSTRUCTIONS AND INSTRUMENT

### JUROR GROUP PARTICIPANT LISTING

- Don Carnahan, Supervisor Traffic Safety Education Intermediate School District 110 100 Crockett Street Seattle, Washington 98109
- 2. Bill Hiblar, Supervisor Traffic Safety Education Old Capitol Building Olympia, Washington 98504
- 3. Clyde McBrayer, Supervisor Traffic Safety Education Old Capitol Building Olympia, Washington 98504
- 4. Joe Mertens, Supervisor
  Traffic Safety Education
  Intermediate School District 101
  Spokane, Washington 99202
- 5. Art Opfer, Supervisor
  Traffic Safety Education
  Intermediate School District 105
  103 Courthouse
  Yakima, Washington 98901

#### LETTER TO JURY MEMBERS

#### Dear

I am writing this letter to solicite your assistance in a study which should have a beneficial effect on the preparation, evaluation and certification of traffic safety education teachers in the state of Washington.

As you know, I am under contract to develop an evaluation instrument for teachers of traffic safety education. In order to accomplish that goal, I must perform a number of other vital steps which are relevant to a quality product. My doctoral dissertation is related to the final product and with your assistance I will be able to accomplish both.

A number of competency statements have been selected from research reports, driver education materials, course outlines, periodicals, texts, the work of several states who are involved in competency-based teacher preparation programs as well as work completed by the Washington Traffic Safety Education Consortium.

I would like you to serve as a jury member. Your task will be to judge the accuracy and relevancy of the competency statements as related to traffic safety education teachers in Washington State. You will also be asked to check for duplication of statements.

Unfortunately, the only compensation I can offer you is a summary of the results of the study, and the satisfaction and knowledge that you have assisted in the effort. It will take approximately four hours of your valuable time but you can be assured that your assistance will be most beneficial.

If you can serve as a jury member please mark the enclosed sheet and return it in the self-addressed stamped envelope that is included by March 6, 1975.

Upon receiving your participation statement, you will be sent a list of the competency statements along with the directions for judging.

Your assistance will be greatly appreciated.

Sincerely,

Ron Hales

# JURY MEMBER PARTICIPATION FORM

Yes, I would be willing to participate in the study as a jury member to judge the accuracy and relevancy of competency statements for traffic safety education teachers of Washington State.
No, I would not be willing to participate in the study as a jury member to judge the accuracy and relevancy of competency statements for traffic safety education teachers of Washington State.
Signed:

### INSTRUCTIONS FOR THE JURY MEMBERS

On the following pages are competency statements that might be used in the preparation, evaluation and certification of traffic safety education teachers in the state of Washington.

These statements have been gathered from research reports, driver education materials, periodicals, course outlines, texts, the work of several states who have been involved in competency-based teacher education programs, as well as work accomplished by the Washington Traffic Safety Education Consortium.

You are being asked to judge the relevancy and accuracy of the statements as they relate to the performance of traffic safety education teachers in Washington State. You are also being asked to consider any duplications or omissions that may exist.

### CRITERIA FOR JUDGMENT

The following criteria should be used in judging each competency statement:

- 1) Is the competency statement relevant for the traffic safety education teacher of Washington State? If so, please place an X in front of the statement on the line provided. In judging the relevancy of each statement you should keep in mind the following questions which should guide your decision making.
  - a) Is this a competency that might be needed by traffic safety education teachers?
  - b) Is there a close association between the competency statement and the potential for success as a teacher of traffic safety education?
- 2) If you feel the statement is inaccurate, please make the necessary changes you feel will improve the statement. In judging the accuracy of each statement please keep in mind the following question:
  - a) Is the statement a clear and accurate description of a competency that might be needed by traffic safety education teachers? Does it agree with a known truth or fact?
- 3) If there are duplications, or you feel the statement should not be included, or should be included in another area, cross it out and make any necessary changes.
- 4) If you feel something has been omitted, please make the addition.

#### Instructions

### SUGGESTIONS FOR COMPLETING THE TASK

- 1) Work from the beginning taking each section one at a time.
- 2) Complete each section prior to starting the next one.
- 3) Read all statements in a section to get the feeling of what is included.

  Then go back and work through each statement following the criteria.
- 4) Take occasional breaks to avoid unnecessary fatigue.
- 5) On long sections you may want to divide them in half (i.e. curriculum development competencies)
- 6) Try and complete the work within several days.

Any comments, additions or corrections that you make would be most helpful.

After completing the instrument, please place it in the self addressed envelope that is enclosed and return it to me by March 28, 1975.

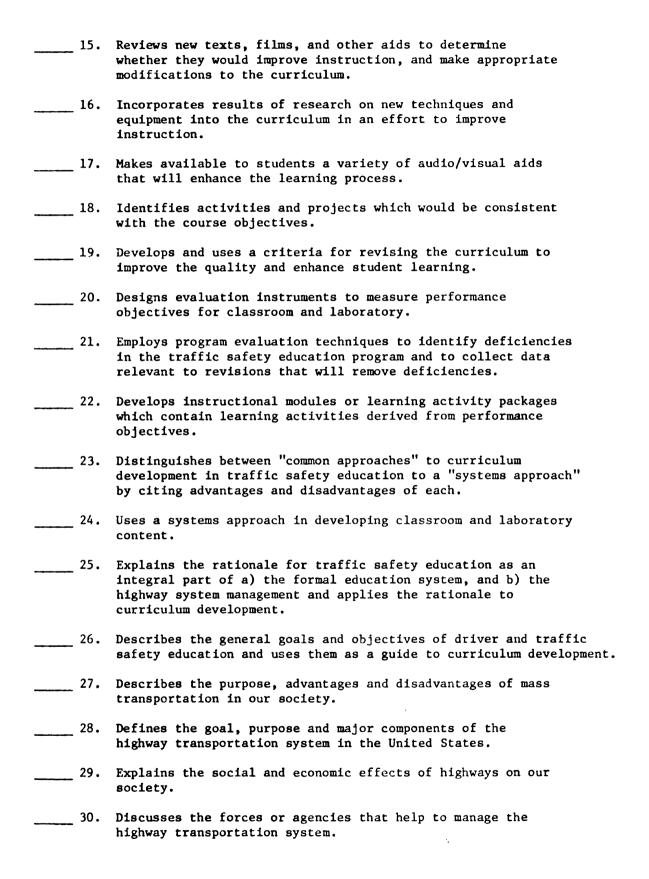
# COMPETENCIES FOR THE TRAFFIC SAFETY EDUCATION TEACHER

I.	Safety	Edu	cation/Accident Prevention Competencies
		1.	Identifies and describes major contributions toward a safe environment and prevention of accidents by specific forces and agencies (e.g., legislation, education, mechanical safe guards).
		2.	Contrasts the philosophies of "safety for" and "safety from" (e.g., positive approach versus negative approach).
		3.	Develops a definition of an accident and compares with "common" definitions.
		4.	Analyzes the current accident problems in the United States and formulates ways of reducing all types of accidents.
	************	5.	Identifies, describes and contrasts accident causation models (e.g., epidemiological, behavioral, decision making, etc.).
		6.	Describes known psychological factors involved in accident causation and prevention and formulates ways of teaching these factors (e.g., emotions, attitudes, values, etc.).
		7.	Describes known physiological factors involved in accident causation and prevention and formulates ways of teaching these factors (e.g., fatigue, alcohol, drugs, etc.).
		8.	Identifies and describes the legal responsibilities and duties of teachers and other school personnel.
		9.	Explains curriculum alternatives for incorporating safety in school programs (e.g., unit plan, correlation, etc.).
	1	LO.	Describes basic principles in planning and implementing school safety programs.
	1	11.	Identifies both school and community responsibilities in developing and implementing K-12 school safety education programs (e.g., bicycle, pedestrian, etc.).
-	1	2.	Explains the application process of learning theories to traffic and safety education (e.g., primacy, recency vividness, etc.).
-	1	.3.	Describes the physical, mental and attitudinal developmental characteristics of children, teenagers and adults as related to traffic and safety education.
_	1	.4 •	Explains the relationship between risk acceptance and decision making.

II.	Mainta	inin	g Professional Competence
		1.	Improves professional competence through attendance at work- shops, seminars, state sponsored inservice days, and other courses and meetings related to traffic safety education.
		2.	Uses instructor and program evaluation data to formulate a plan for improvement of professional competence.
		3.	Demonstrates good physical appearance and practices personal hygiene habits commensurate with that of other teachers.
		4.	Is active in local, state and national professional organizations that promote traffic and safety education.
		5.	Follows the professional code of ethics as prescribed by local school district and state associations.
		6.	Reads traffic safety education professional publications and contributes when appropriate.
	•	7.	Demonstrates self-initiative for developing self and peers to increasing levels of competence and confidence.
		8.	Seeks opportunities to receive more formal preparation leading toward advanced degrees.
		9.	Explains procedures for activating an emergency medical services system under varying conditions.
III.	School	/Com	munity Relations Competencies
	Mandama and Proposition	1.	Demonstrates ability to convey the nature and purpose of his traffic safety education program to persons outside the school community (e.g., parents, police, city council, etc.).
		2.	Demonstrates ability to convey the nature and purpose of his traffic safety education program to members of the school community (e.g., fellow teachers, administration, etc.).
		3.	Establishes and maintains positive relationships with automobile dealers and other private agents who can be supportive of the traffic safety education program.
		4.	Promotes a K-12 approach to traffic safety education to persons both inside and outside the school community.
		5.	Acts as a resource person to the community in regards to traffic safety (e.g., serves on committees, speaks to

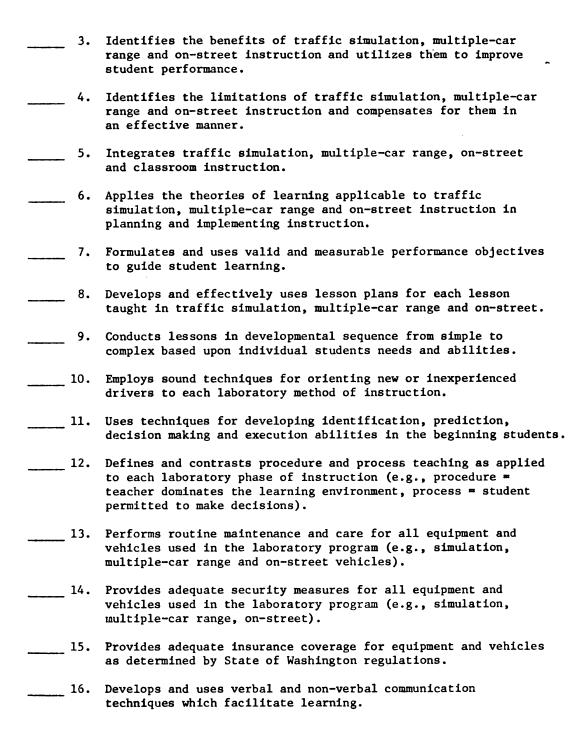
	skills taught in the traffic safety education program.
7.	Holds a parent night at the beginning of each new class to acquaint parents with the program and encourage their support.
8.	Encourages self and student involvement in community traffic safety activities designed to improve the quality of the traffic safety program.
9.	Uses the local media to promote traffic safety education in the community.
10.	Uses practice driving vehicles only for instructional purposes.
Personal D	riving Performance Competencies
1.	Demonstrates a knowledge of vehicle dynamics (e.g., acceleration, braking, cornering, etc.).
2.	Performs all basic control tasks that are required of beginning drivers (e.g., turns, parking, starting procedures; etc.).
3.	Performs all traffic flow tasks that will be taught to beginning drivers (e.g., merging, passing, following, etc.).
4.	Performs emergency type maneuvers that would be taught to all students (e.g., power loss, stuck accelerator, brake failure, etc.).
5.	Performs advanced emergency type maneuvers that would be taught to capable student learners (e.g., controlled braking, run-off-road, evasive steering, etc.).
6.	Sets a good example to students and community by obeying all rules and regulations while driving own or traffic safety education vehicle.
7.	Continually practices the I.P.D.E. (identify, predict, decide, execute) principles as taught to his students.
8.	Demonstrates a driving record which includes less than two (2) convictions for moving violations in three (3) years and involvement in no more than one (1) collision in the same period.
<u> </u>	Maintains own vehicle(s) in good operating condition.
10.	Uses the safety restraint system while driving or riding in his own or other vehicles.

# V. Curriculum Development Competencies 1. Applies the State of Washington legislative requirements when developing or revising curriculum. Determines and provides for the needs in regards to equipment, facilities and resources prior to implementation of established curriculum or proposed changes in established curriculum. Discusses proposed changes in curriculum with the school administration prior to implementation. Selects and organizes course content for the local traffic safety education program based upon State of Washington guidelines. 5. Uses the local curriculum guide as the chief source for program implementation. 6. Is aware of and takes into consideration factors unique to his district that may limit and/or facilitate the experiences that will be provided for his traffic safety education students (e.g., driving environments, resource people, etc.). 7. Identifies concepts, knowledges, skills and attitudes that must be acquired in the course by reviewing state and local curriculum guides and requirements, consulting traffic safety education publications and research studies and consulting traffic safety education specialists. 8. Provides for individualization based upon student performance. Selects content for each classroom unit of instruction 9. consistent with the unit objectives. Develops unit objectives in behavioral terms that are based 10. upon the goals, concepts, performances, knowledges, skills and attitudes which have been identified in the State of Washington traffic safety education curriculum guide. Develops specific behavioral objectives for each unit of instruction and uses them as a means of determing student progress and rate of achievement. 12. Provides for the integration of classroom concepts and laboratory application. 13. Makes available pertinent resource material to which students can refer and from which assignments can be made. 14. Selects texts which could be used in the course as resources to student learning.



31.	Identifies the procedures and methods used by the governments to finance and manage highways.
32.	Describes the concept of the driving task as it relates to beginning drivers (e.g., mental, social and physical requirements).
33.	Describes the federal and state role in highway construction.
34.	Explains the federal and state role in highway safety.
35.	Describes the interrelatedness of the driver, vehicle and environment as related to the driving task.
36.	Involves community agencies and resource persons in the design and implementation of his traffic safety education program.
37.	Interprets the traffic laws of the State of Washington as related to motor vehicle operation (e.g., speed, right-of-way, passing, etc.).
38.	Interprets the laws of the State of Washington regarding ownership of a motor vehicle (e.g., licensing, financial responsibility, under the influence of alcohol, etc.).
39.	Discusses the effects of highway safety acts and programs on the highway transportation system.
40.	Describes the role of the highway traffic engineer as it relates to highway transportation system management.
41.	Describes the role of the department of motor vehicles as it relates to highway transportation system management.
42.	Describes the role of enforcement as it relates to highway transportation system management.
43.	Provides opportunities for career guidance to students as it relates to the field of traffic safety.
Instructio	nal Competencies
A. Laboratory - Common to All	
1.	Identifies the purpose, philosophy and rationale for traffic simulation, multiple-car range and on-street instruction.
2.	Complies with Washington State and national legislative requirements pertaining to traffic simulation, multiple-car range and on-street instruction.

VI.



 17.	Guides student practice for maximum achievement by:
	<ul> <li>a. recognition of common errors.</li> <li>b. providing feedback so students can recognize errors.</li> <li>c. providing practice until performance is acceptable.</li> <li>d. allowing for concentrated practice when skill is introduced.</li> <li>e. providing cues and reminders.</li> <li>f. conducting drills with a variety of teaching techniques.</li> <li>g. providing effective demonstrations.</li> <li>h. giving good directions.</li> </ul>
 18.	Structures lessons according to the major driving task clusters as found in the Washington State Curriculum Guide (e.g., basic control, traffic flow, critical systems).
 19.	Identifies the competency level of each student upon entry into each laboratory phase of the program.
 20.	Describes the teacher and learner responsibilities at each driving task level for each phase of the laboratory instruction (e.g., basic control, traffic flow, critical systems).
 21.	Projects positive personality traits to students during each phase of laboratory instruction (e.g., respect and empathy for learners, good teacher mannerisms, etc.).
 22.	Demonstrates a variety of teaching techniques to facilitate student learning.
 23.	Demonstrates each skill, procedure or maneuver required of the beginning driver (e.g., simulation, multiple-car range, onstreet as applicable).
 24.	Allows the student to progress at his/her own rate.
 25.	Develops and uses special techniques when normal teaching methods are not effective.
 26.	Maintains a record of vehicle and equipment malfunctions so that proper repairs can be made (simulation, multiple-car range, on-street).
 27.	Demonstrates and teaches advanced emergency driving procedures and maneuvers (e.g., run-off-road, evasive steering, controlled braking, etc.).
 28.	Schedules students into traffic simulation, multiple-car range and on-street labs according to their needs and abilities.
29.	Identifies those behaviors that should be evaluated in traffic simulation, multiple-car range and on-street instruction and sees that they are evaluated.

	30.	phase of the laboratory instruction (e.g., observation, checklists, electro-mechanical equipment, videotape, etc.).
	31.	Maintains student progress records and utilizes the data to facilitate instruction in meeting student needs.
	32.	Uses instructional aids to facilitate instruction.
	33.	Applies the result of research of the driving task to the selection and organization of the content for traffic simulation, multiple-car range and on-street instruction.
	34.	Develops and uses communication techniques designed to meet the needs of the situation and type of laboratory instruction.
	35.	Demonstrates techniques for teaching physically and mentally handicapped students in the driving simulator, on the multiplecar driving range and on-street.
	36.	Exercises discipline measures for control of students in the laboratory program.
	37.	Establishes a good rapport with students (e.g., takes a personal interest in them).
B. <u>Ur</u>	ique	to Traffic Simulation
	1.	Uses the fixed-base driving simulator method of instruction to develop the human functions (e.g., identification, prediction, decision making and execution skills).
	2.	Operates all master control components that are essential in teaching in the fixed-base driving simulator.
	3.	Operates all master control components of the 16 mm projector used in traffic simulation instruction.
***************************************	4.	Identifies the procedures for and operates the driving simulator system in automatic and manual scoring modes.
	5.	Identifies the procedures for and changes between automatic and manual scoring modes as necessary while teaching in the fixed-base driving simulator.
	6.	Uses procedures for ending the filmed presentation while in automatic and/or manual scoring mode.

7.	Introduces the traffic simulator lesson by using enrichment instructional techniques such as:
	<ul> <li>a. discussing situations that will be encountered in the film.</li> <li>b. conducting drills to assist performance.</li> <li>c. asking questions about film related topics.</li> <li>d. calling on students to interpret situations.</li> <li>e. using role playing situations, etc.</li> </ul>
8.	Uses enrichment teaching aids to prepare the student for the film segment of the driving simulation lesson by using:
	<ul> <li>a. slides</li> <li>b. filmstrips</li> <li>c. charts</li> <li>d. magnetic-board</li> <li>e. handouts</li> <li>f. chalkboard, etc.</li> </ul>
9 <b>.</b>	Uses instructional methods during the teaching of the film by:
	<ul> <li>a. stopping the film.</li> <li>b. reversing the film.</li> <li>c. interjecting ideas and comments with and without the microphone.</li> <li>d. running the film with no sound.</li> <li>e. still framing.</li> <li>f. using slow motion/time lapse, etc.</li> </ul>
10.	Assesses the performance of students individually and as a group during the film and while practicing in a drill situation.
11.	Uses follow-up techniques to reinforce learning attained in the film segment (e.g., re-run the film, drills, handouts, etc.).
12.	Actively teaches in the driving simulator and does not rely completely upon the film to present concepts, procedures and skills.
13.	Positions self at all times so as to provide effective and efficient observation and instruction and avoid unnecessary distractions.
14.	Uses instructional aids during the film presentation by:
	<ul><li>a. using the flashlight pointer.</li><li>b. using the microphone.</li><li>c. using other sounding devices, etc.</li></ul>
15.	Distinguishes between the parts of the driving task that will transfer positively and negatively to on-street driving and takes advantage or compensates for them while teaching.
16.	Demonstrates a given procedure using the simulators and electronic feedback equipment, showing the responses necessary to correctly activate the equipment in response to programmed and/or coded media (e.g., showing proper steering, braking, signalling, etc.).

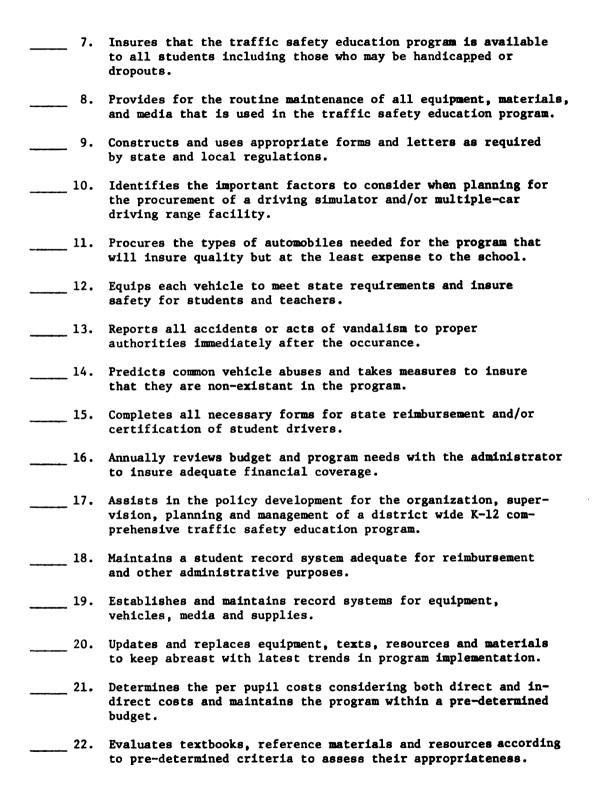
17.	Interprets and uses the printed score sheet during the lessons taught in the fixed-base driving simulator.
18.	Justifies traffic simulation as a way of improving the quality and reducing costs of the traffic safety program.
19.	Identifies and discusses the factors to consider when planning for or designing a driving simulator facility.
20.	Identifies and explains those component parts of the simulator system that are necessary for a quality program.
21.	Describes and discusses the advantages and limitations of various types of simulator installations and optional equipment.
22.	Describes the principles involved in the transfer of learning from a simulated to a real task.
C. <u>Unique</u>	to Multiple-Car Range
1.	Demonstrates the proper placement and use of equipment essential for the effective teaching of each multiple-car range lesson (e.g., cones, flags, cars, etc.).
2.	Prepares each vehicle that will be used for the multiple-car range instruction prior to the arrival of the learners (e.g., communication system, numbers, etc.).
3.	Develops and utilizes effective communication techniques which facilitate learning.
4.	Maintains a good position at all times to:
	<ul> <li>a. see cars by facing them.</li> <li>b. be where students can hear and see him.</li> <li>c. provide for the safety of all concerned.</li> <li>d. know what all vehicles are doing.</li> </ul>
5.	Anticipates "potential conflict areas", and moves to a position near them before they develop.
6.	Maintains complete control of the range at all times.
7.	Describes the principles involved in the transfer of learning from a simulated to a real task.
8.	Defines the multiple-car range method of instruction.
9.	Identifies and discusses research applicable to the use of multiple-car driving ranges.

10.	for or designing a multiple-car driving range facility.
11.	Distinguishes between the three (3) major types of multiple-car driving ranges noting both advantages and disadvantages of each (e.g., basic control, traffic mix, advanced maneuvers).
12.	Describes the distinguishing features of a multiple-car driving range facility.
13.	Justifies multiple-car driving range instruction as a way of improving the quality and reducing the cost of the traffic safety education program.
14.	Provides for traffic mix situations thus enabling students to identify, predict, decide and execute in near real situations.
D. <u>Unique</u>	to On-Street
1.	Describes the inherent dangers involved in on-street instruction and takes necessary measures to minimize and avoid these dangers.
2.	Develops and implements guidelines for determining the amount and distribution of on-street practice for skills and maneuvers taught.
3.	Uses the limited amount of time for on-street instruction for the maximum benefit of the student.
4.	Demonstrates and teaches the commentary driving technique (e.g., short narration of what one sees in the driving scene).
5.	Demonstrates and teaches route and destination driving (e.g., going from one point to another with minimal aid from instructor).
6.	Uses control instruments to maintain safety and facilitate instruction (e.g., dual brake, steering wheel, etc.).
7.	Uses techniques for involving the back seat observers during the instructional lesson (e.g., checklists, uses questions, etc.).
8.	Groups students according to ability and needs.
9.	Uses methods which ease anxiety, fear, etc. on the part of students when such a need arises.
10.	Maintains at all times a position within the vehicle for observation, instruction and control.

	11.	Selects routes that will enable the student to best achieve his objectives and prepare for future driving.
	12.	Provides instruction in emergency advanced driving techniques according to student ability and safety.
	13.	Maintains awareness of the traffic scene during on-street driving experiences and anticipates moves of the student driver to prevent occurance of dangerous situations.
E. <u>C</u>	lassr	oom_
	1.	Integrates classroom experiences with laboratory application.
	2.	Uses a variety of teaching methods designed to aid the learning process (e.g., role play, small group, individualized work, etc.)
<del></del>	3.	Applies the results of research in the selection and use of teaching methods and techniques.
	4.	Exercises discipline measures for class control.
	5.	Applies the result of research to the selection and use of instructional materials.
	6.	Constructs or has constructed audio/visual materials that can be used in a performanced-based individualized program.
	7.	Performs routine maintenance and care for all classroom equipment and materials.
	8.	Designs and uses learning activities which assist the student in achieving the stated performance objectives.
<del></del>	9.	Sequences instructional activities of class to the laboratory phase of the program.
	10.	Orients and prepares students in the classroom for their laboratory experiences.
	11.	Identifies knowledges, skills and attitudes that must be evaluated in the classroom.
	12.	Uses a selection criteria for identification of instruments and methods for evaluating classroom performances.
	13.	Constructs and uses evaluation instruments for assessing student performance in the classroom.

<del></del>	14.	Employs a valid and reliable grading system based upon student performance data from the classroom and laboratory experience.
	15.	Provides for the needs of all students using self contained instructional packets and allowing them to progress at their own rate.
	16.	Uses resource people to complement instruction and assist student learning.
	17.	Develops and uses lesson plans for all classroom sessions.
	18.	Supervises the use of individualized instruction and other auxiliary equipment and materials.
	19.	Recognizes each person as a person of worth and dignity.
	20.	Lists the important mental health habits required of all teachers.
	21.	Describes how attitudes and habits are formed by individuals.
	22.	Describes how behavior can be modified or directed.
	23.	Employs the values clarification process as it relates to traffic safety education.
	24.	Identifies physical and mental problems that various students may possess.
Admini	stra	tive Competencies
	1.	Determines the number of instructors needed for the implementation of the local traffic safety education curriculum.
Ministrustrolleria	2.	Uses record forms for students, equipment, vehicles and supplies as required by the local district and State Department of Public Instruction.
-	3.	Has a program organized to meet all state standards as found in the "Administrative Manual for Traffic Safety Education."
	4.	Selects those training devices that are most cost effective and beneficial to student learning with respect to established program objectives.
	5.	Schedules students into classroom and laboratory experiences according to their ability and level of competence.
	6.	Maintains adequate insurance coverage for vehicles, students,

VII.



 23.	Maintains the traffic safety education vehicles as prescribed by the agreement form as supplied by the Superintendent of Public Instruction.
 24.	Demonstrates a knowledge of state and federal regulations regarding program organization and administration.
 25.	Requires that all traffic safety education instructors meet state certification requirements.
 26.	Provides inservice workshops for all teachers in the district to insure their exposure to the latest teaching methods and techniques.
 27.	Develops and uses a written enrollment criteria which states how students are accepted into a traffic safety course and when they are accepted.
 28.	Demonstrates acceptable knowledge of program approval, and reimbursement procedures as explained in the Traffic Safety Education Administrative Manual.
 29.	Demonstrates ability to schedule classes and equipment, according to needs.

#### SAMPLE FOLLOW-UP LETTER

#### Dear

This is a reminder that I have not yet received your copy of the instrument Competencies For The Traffic Safety Education Teacher which you agreed to review as a member of a jury panel.

Since I must have your completed copy before I can move on to the next step in the project, it is of extreme importance that I receive the instrument.

If you have not already done so I would encourage you to complete the instrument and return it to me as soon as possible.

If you have already completed the instrument by the time you receive this letter please ignore this reminder.

Thank you for your assistance in this matter.

Sincerely,

#### RATER PANEL PARTICIPANT LISTING

# Group 1. Curriculum Workshop Team (teachers)

- Robert Babbitt
   Assistant Principal
   Hawthorne Elementary School
   Ritzville, Washington 99169
- 2. David Bradley Kelso High School 1904 Allen Street Kelso, Washington 98626
- Larry Clark
   Davis High School
   Yakima, Washington 98902
- 4. Gary Dunn
  North Thurston School District
  6202 Pacific Avenue
  Lacey, Washington 98503
- 5. Bernhard Lang Walla Walla High School Fern and Abbott Road Walla Walla, Washington 99362
- 6. Billy Sullivent Averdeen High School 414 North I Street Aberdeen, Washington
- 7. Bill White
  Easton High School
  Box 8
  Easton, Washington 98925
- 8. Gayle Whitsell Lake Stevens High School Lake Stevens, Washington 98258

# Group 2. Washington Traffic Safety Education Association Executive Board Members

- Joe Ackerman
   Kelso High School
   1904 Allen Street
   Kelso, Washington 98626
- Ray Blowers
   Central Valley High School
   South 821 Sullivan Road
   Veradele, Washington 99037
- George Clark
   Kennewick High School
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   Kennewick, Washington 99336
- 4. Robert Dolhanyk
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  Seattle, Washington 98103
- 5. Sid Muzzy
  Battle Ground High School
  Battle Ground, Washington 98604
- 6. John Shafer Touchet High School Box 1135 Touchet, Washington 99360
- Paul Shumaker Lewis & Clark High School West 521 Fourth Ave. Sopkane, Washington 99204
- 8. Larry Thompson
  Sammamish Senior High
  100 140 Avenue S.E.
  Bellevue, Washington 90005

### Group 3. Administrators

- 1. Robert Berg
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  Camas High School
  1612 N.E. Garfield
  Camas, Washington 98607
- 2. ▼ Robert Brown
  Principal
  Langley Junior-Senior High School
  Box 346
  Langley, Washington 98260
- 3. Thomas Byrne
  Principal
  Wenatchee High School
  1101 Millerdale
  Wenatchee, Washington 98801
- 4. Robert Kuehl
  Principal
  Cheney High School
  460 North 6th Street
  Cheney, Washington 99004
- 5. Bill Moulton
  Principal
  Kelso High School
  1904 Allen Street
  Kelso, Washington 98626
- 6. Rober Munson
  Assistant for Instruction
  Evergreen School District
  Route 7
  7000 N.E. 117 Ave.
  Vancouver, Washington 98662
- 7. Robert Weller
  Superintendent
  Davenport School District
  Box 8
  Davenport, Washington 99122
- 8. John Wood, Principal Lake Washington High School 12033 N.E. 80th Kirkland, Washington 98033

# Group 4. College Students

- Roger Allen Central Washington State College Ellensburg, Washington 98926
- 2. Glen Allison Central Washington State College Ellensburg, Washington 98926
- 3. Richard Irving Central Washington State College Ellensburg, Washington 98926
- 4. James Nelson Central Washington State College Ellensburg, Washington 98926
- 5. Jim Beard
  Eastern Washington State College
  Cheney, Washington 99004
- 6. Tom Dundas
  Eastern Washington State College
  Cheney, Washington 99004
- 7. Jerry Miller
  Eastern Washington State College
  Cheney, Washington 99004
- 8. Robert Peck
  Eastern Washington State College
  Cheney, Washington 99004

# Group 5. Program Coordinators

- 1. Keith Bartol Seattle School District 13720 Roosevelt Way North Seattle, Washington 98133
- 2. Dr. Alan B Davidson Kent School District #415 508 N. Central Kent, Washington 98031
- Robert Folsom
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   605 North Devine Street
   Vancouver, Washington 98661
- 4. Robert Jayne Central Valley School District South 123 Bowdish Road Spokane, Washington 99206
- 5. Dr. Mark Miller Sopkane School District West 825 Trent Avenue Sopkane, Washington 99201
- 6. Edward Page
  Manson High School
  Manson, Washington 98831
- 7. Dr. Jack Starr
  Tacoma School District
  Box 2357
  Tacoma, Washington 98401
- 8. Robert Wraith Renton School District #403 435 Main Avenue S. Renton, Washington 98055

# Group 6. Support Agencies

- 1. Trooper Roger Bruett
  Washington State Patrol
  General Administration Building
  Olympia, Washington 98501
- 2. Lt. Mike Feldhausen
  Washington State Patrol
  General Administration Building
  Olympia, Washington 98501
- Jim Gallagher
   Washington State Department of Highways
   Highway-License Building
   Olympia, Washington 98501
- 4. Sergeant Robert McBride
  Washington State Patrol
  Ellensburg, Washington 98926
- 5. Dave Kirk, Administrator
  Driver Improvement Section
  Department of Motor Vehicles
  Highway-License Building
  Olympia, Washington 98501
- 6. Dr. C.L. Klingberg
  Supervisor of Research
  Department of Motor Vehicles
  Highway-License Building
  Olympia, Washington 98501
- 7. Ellis Lind
  Western Insurance Information Service
  304 Olympic National Life Building
  Seattle, Washington 98104
- 8. Robert Ridgway
  Automobile Club of Washington
  Safety Education
  330 6th Ave. N.
  Seattle, Washington 98109

# Group 7

- 1. Roy Meyers
  Traffic Safety Education
  Technology and Industrial Education
  Central Washington State College
  Ellensburg, Washington 98926
- 2. E. Eldon Engel
  Traffic Safety Education
  Department of Education
  Eastern Washington State College
  Cheney, Washington 99004
- 3. Wes Martinson
  Traffic Safety Education
  Technology and Industrial Education
  Western Washington State College
  Bellingham, Washington

#### LETTER TO PANEL OF RATERS

#### Dear

The identification of teacher competencies is a growing trend in the United States today. Parents, legislators, students and teachers themselves are among those concerned about the preparation and competency of those who teach and administer in the public schools.

To meet this demand of accountability, many states have passed legislation requireing competency-based teacher education programs. Washington State recently took a step in that direction with the passage of the 1971 "Guidelines and Standards for the Development and Approval of Programs of Preparation Leading to the Certification of School Professional Personnel."

Having worked for several years on the Washington State Traffic Safety Education Consortium at Ellensburg in developing competencies, I recognize the need for a study designed to identify those competencies that all teachers of traffic safety education should be able to perform in order to qualify for certification.

For this reason, as part of my doctoral program in traffic safety education at Michigan State University, I have chosen to develop a list of competency statements that might be used as a guideline for the preparation, certification and evaluation of traffic safety education teachers in Washington State. A second step, although not part of my dissertation, will be to develop a self-evaluative instrument based upon those competencies which will be field tested and made available to all teachers and school districts in Washington to use on a voluntary basis for the purpose of self-improvement.

My purpose in writing to you is to ask for your assistance as a participant in the study. I would like you to serve as a member of a panel of raters. The panel will consist of representatives from the following areas:

- 1. traffic safety education teachers
- 2. Washington Traffic Safety Education Association Executive Board members
- 3. high school administrators
- 4. college undergraduate students preparing to become traffic safety education teachers
- 5. traffic safety education program coordinators
- 6. traffic safety education support agencies
- 7. college traffic safety education instructors

You have been one of several selected to represent group and your job will be to rate each competency statement on a scale from 1-5. The rating process will take several hours of your valuable time, but without your assistance this needed information would not be available and the study would not be possible.

Unfortunately, the only compensation I can offer is a summary of the study results, and the satisfaction and knowledge that you have assisted in the effort.

If you are willing to serve as a member of the rater panel, please mark the enclosed form and return it in the self-addressed stamped envelope that is included within one week of receiving this letter.

Upon receiving your participation statement, you will be sent a list of competency statements along with additional information and directions for rating the statements.

Your assistance will be greatly appreciated.

Sincerely,

# RATER PARTICIPATION FORM

<del></del>	Yes, I would be willing to participate as a rater to evaluate competency statements of traffic safety education teachers of the state of Washington.
	_No, I would not be willing to particpate as a rater to evaluate the competency statements of traffic safety education teachers of the state of Washington
	Signed:

#### SAMPLE FOLLOW-UP LETTER

#### Dear

This is to remind you that I have not yet received your participation statement regarding my doctoral study on determining competencies for traffic safety education teachers of Washington State.

Your assistance is needed in order to complete a very worthwhile study. As a member of a panel of raters you will have an opportunity to evaluate the competency statements that have been gathered from many sources and help to determine those that are considered essential for traffic safety education teachers.

You will find another participation statement enclosed. I would appreciate it if you would mark it and return it to me in the enclosed self-addressed stamped envelope immediately so that I can send you the list of competency statements.

Thank you for your help in this important matter.

Sincerely,

# APPENDIX B

RATER PANEL PARTICIPANTS, LETTER

PARTICIPATION STATEMENT, FOLLOW-UP

LETTER, INSTRUMENT, FOLLOW-UP LETTER

#### INFORMATION FOR PROSPECTIVE RATERS

The purpose of this survey is to develop a list of competencies for traffic safety education teachers for the state of Washington that would be considered necessary for effective teachers to perform and could be used as a basis for preparation, evaluation, and certification of both pre-service and in-service teachers.

Competencies are defined as the ability to perform or to execute in a satisfactory manner a particular behavior or function related to effective student learning.

The competency statements have been gathered from research reports, driver education materials, periodicals, texts, the work of several states who have been involved in competency-based teacher education programs, as well as work accomplished by the Traffic Safety Education Consortium from the state of Washington. The competency statements have been checked for duplication, omission, relevancy and accuracy by a jury of traffic safety education experts from the state of Washington.

Included is a listing of competencies in a check list format. Seven major topics are found with related statements appearing under each heading. This study is concerned with obtaining a listing of the relative importance of the competencies.

In order to complete the study your cooperation is essential. Your assistance in this most important study will be greatly appreciated as the results should be most helpful to the state of Washington.

Sincerely,

#### DIRECTIONS FOR COMPLETING THIS INSTRUMENT

On the following pages are competency statements that might be used in the preparation, evaluation, certification and recertification of traffic safety education teachers in the state of Washington. Fach competency statement should be read and considered independently, and then placed into one of the following five categories found at the end of each statement.

- Unessential-----circle number 1 No traffic safety education instructors should be required to perform this competency.
- 2. Unimportant-----circle number 2 In general, traffic safety education instructors would not need this competency to be a successful teacher.
- 4. Important-----circle number 4 In general, the competency statement is necessary for successful teachers of traffic safety education.
- 5. Essential-----circle number 5 All traffic safety education teachers should be required to perform this competency.

When responding, please circle only one response for each competency statement. Completely erase if necessary. When you have completed this instrument, please place it in the self-addressed stamped envelope that is enclosed, and return it to me within two weeks from the date that you received it.

#### ADDITIONAL SUGGESTIONS FOR COMPLETING THE INSTRUMENT

- 1. Work from the beginning taking each section one at a time.
- 2. Complete each section prior to starting the next one.
- 3. Read all statements in a section to get the feeling of what is included. Then go back and work through each statement following the criteria.
- 4. Take occasional breaks to avoid unnecessary fatigue.
- 5. On long sections you may want to divide them in half (i.e. curriculum development competencies)
- 6. Try and complete the work within several days.

		COMPETENCIES FOR THE TRAFFIC SAFETY EDUCATION TEACHER			it.		
ı.	Safety Education/Accident Prevention Competencies  1. Identifies and describes major contributions toward a safe environment and the prevention of accidents by specific forces and agencies (e.g., legislation, education, mechanical safe guards).	unessential	unimportant	neither important nor unimportant	important	essential	
			1	2	3	4	5
	2.	Contrasts the philosophies of "safety for" and "safety from" (e.g., positive approach versus negative approach).	1	2	3	4	5
	3.	Develops a definition of an accident and compares with "common" definitions.	1	2	3	4	5
	4.	Analyzes the current accident problems in the United States and the State of Washington, and formulates ways of reducing all types of accidents.	1	2	3	4	5
	5.	Describes and contrasts accident causation models (e.g., epidemiological, behavioral, decision making, etc.).	1	2	3	4	5
	6.	Describes known psychological factors involved in accident causation and prevention and formulates ways of teaching these factors (e.g., emotions, attitudes, values, etc.).	1	2	3	4	5
	7.	Describes known physiological factors involved in accident causation and prevention and formulates ways of teaching these factors (e.g., fatigue, alcohol, drugs, etc.).	1	2	3	4	5
	8.	Identifies and describes the legal responsibilities and duties of teachers and other school personnel as related to accident causation and prevention.	1	2	3	4	5
	9.	Identifies curriculum alternatives for incorporating safety in school programs and selects the most effective for implementation (e.g., unit plan, correlation, etc.).	1	2	3	4	5
1	10.	Identifies and describes basic principles in planning and implementing school safety programs.	1	2	3	4	5
1	11.	Identifies both school and community responsibilities in developing and implementing K-12 school safety education programs (e.g., bicycle, pedestrian, etc.).	1	2	3	4	5
1	2.	Explains the application of learning theories to traffic and safety education (e.g., primacy, recency, vividness, etc.).	1	2 .	3	4	5
1	3.	Describes the physical, mental and attitudinal developmental characteristics of children, teenagers and adults as related to safety education.	1	2	3	4	5
1	4.	Explains the relationship between risk acceptance and decision making.	1	2	3	4	5

		•	nnessentiat	unimportant	neither important nor unimportant	1mportant	essential
	15.	Explains procedure for activating an emergency medical services system under varying conditions.	1	2	3	4	5
II.	Per	sonal Driving Performance Competencies					
	1.	Demonstrates a knowledge of vehicle dynamics (e.g., acceleration, braking, cornering, etc.).	1	2	3	4	5
	2.	Performs all basic control tasks that are required of beginning drivers (e.g., turns, parking, starting procedures, etc.).	1	2	3	4	5
	3.	Performs all traffic flow tasks that will be taught to beginning drivers (e.g., merging, passing, following, etc.).	1	2	3	4	5
	4.	Performs emergency vehicle procedures that would be taught to all students (e.g., power loss, stuck accelerator, brake fail- ure, etc.).	1	2	3	4	5
	5.	Performs advanced emergency traffic procedures that would be taught to capable student learners (e.g., controlled braking, run-off-road, evasive steering, etc.).	1	2	3	4	5
	6.	rules and regulations while driving own or traffic safety	1	2	3	4	5
	7.	Continually practices the I.P.D.E. (identify, predict, decide, execute) principles as taught to his students.	1	2	3	4	5
	8.	Demonstrates a driving record which includes no more than three (3) convictions for moving violations or more than one (1) chargable collision in any two year period.	1	2	3	4	5
	9.	Maintains own vehicle(s) in good operating condition.	1	2	3	4	5
	10.	//	1	2	3	4	5
III.	Cur	riculum Development Competencies					
	1.	Applies the State of Washington legislative requirements when developing or revising curriculum.	1	2	3	4	5
	2.	equipment, facilities and resources prior to implementation of developed curriculum or proposed changes in established	1	2	3	4	5
	3.	Discusses proposed changes in curriculum with the school administration prior to implementation.	1	2	3	4	5

		unessential	unimportant	neither important nor unimportant	1mportant	essential
4.	Uses the local curriculum guide as the source for program implementation.	1	2	3	4	5
5.	Is aware of and takes into consideration factors unique to his district that may limit and/or facilitate the experiences that will be provided for his traffic safety education students (e.g., driving environments, resource people, etc.).	1	2	3	4	5
6.	Identifies knowledges, skills, and attitudes that must be acquired in the course by reviewing state and local curriculum guides and requirements, consulting traffic safety education publications and research studies and consulting traffic safety education specialists.	1	2	3	4	5
7.	Provides for individualization based upon student ability.	1	2	3	4	5
8.	Selects content for each unit of instruction consistent with the unit objectives.	1	2	3	4	5
9.	Develops unit objectives in performance terms that are based upon the goals, concepts, performances, knowledges, skills and attitudes listed in the State of Washington Traffic Safety Education Curriculum Guide, subsequent revisions, and any other leading documents in traffic safety education.	1	2	3	4	5
10.	Develops specific performance objectives for each unit of instruction and uses them as a means of determining student progress.	1	2	3	4	5
11.	Provides for the integration of classroom concepts and laboratory application.	1	2	3	4	5
12.	Makes available pertinint resource material to which students can refer and from which objectives can be achieved.	1	2	3	4	5
13.	Identifies activities and projects which would be consistent with the course objectives.	1	2	3	4	5
14.	Employs individualized learning techniques which contain learning activities derived from performance objectives (e.g., learning activity packages, instructional modules, etc.).	1	2	3	4	5
15.	Selects texts which could be used in the course as resources to student learning.	1	2	3	4	5
16.	Reviews new texts, films, and other aids to determine whether they would improve instruction, and make appropriate modifications to the curriculum.	1	2	3	4	5
17.	Incorporates results of research on new techniques and equipment into the curriculum in an effort to improve instruction.	1	2	3	4	5

		unessential	unimportant	neither important nor unimportant	1mportant	essential
18.	Makes available to students a variety of audio/visual aids that will contribute to achieving course objectives.	1	2	3	4	5
19.	Develops and uses a criteria for revising the curriculum to improve the quality and enhance student learning.	1	2	3	4	5
20.	Designs and uses evaluation instruments to measure performance objectives for classroom and laboratory.	1	2	3	4	5
21.	Employs program evaluation techniques to identify deficiencies in the traffic safety education program and to collect data relevant to revisions that will remove deficiencies.	e- 1	2	3	4	5
22.	Distinguishes between "common approaches" to curriculum development in traffic safety education and a "systems approach" by citing advantages and disadvantages of each.	1	2	3	4	5
23.	Uses a systems approach in developing classroom and laboratory content.	1	2	3	4	5
24.	Explains the rationale for traffic safety education as an integral part of a) the formal education system, and b) the highway system management and applies the rationale to curriculum development.		2	3	4	5
25.	Identifies and describes the general goals and objectives of traffic safety education and uses them as a guide to curriculum development.	1	2	3	4	5
26.	Describes the purpose, advantages and disadvantages of mass transportation in our society.	1	2	3	4	5
27.	Defines the goal, purpose and major components of the highway transportation system in the United States.	1	2	3	4	5
28.	Explains the social and economic effects of highways on our society.	1	2	3	4	5
29.	Identifies and describes the forces or agencies that help to manage the highway transportation system (e.g., enforcement, traffic engineering, state department, department of motor vehicles, etc.).	1	2	3	4	5
30.	Explains the federal and state role in highway safety.	1	2	3	4	5
31.	Discusses the effects of highway safety acts and programs on the highway transportation system.	e 1	2	3	4	5
32.	Describes the federal and state role in highway construction.	1	2	3	4	5

		unessential.	unimportant	neither important nor unimportant	1mportant	essential
33.	Identifies the procedures and methods used by governments to finance and manage the highway transportation system.	1	2	3	4	5
34.	Describes the concept of driving task as it relates to the beginning drivers (e.g., mental, social and physical requirements.	1	2	3	4	5
35.	Describes the interrelatedness of the driver, vehicle and environment as related to the driving task.	1	2	3	4	5
36.	Involves community agencies and resource persons in the design and implementation of his traffic safety education program.	1	2	3	4	5
37.	Interprets the traffic laws of the State of Washington as re- lated to motor vehicle operation (e.g., speed, right-of-way, passing, etc.).	1	2	3	4	5
38.	Interprets the laws of the State of Washington regarding ownership, licensing, financial responsibility, driving while under the influence of alcohol and drugs, reckless driving, etc.	1	2	3	4	5
39.	Provides opportunities for career guidance to students as it relates to the field of traffic safety.	1	2	3	4	5
40.	Explains how local traffic safety education program is sequenced (e.g., how students move through the program).	1	2	3	4	5
Ins	tructional Competencies					
A.	Common to Both Classroom and Laboratory					
	<ol> <li>Establishes a good rapport with students (e.g., takes a personal interest in them).</li> </ol>	1	2	3	4	5
	2. Projects positive personality traits to students during laboratory and classroom instruction (e.g., respect and empathy for learners, good teacher mannerisms etc.).	1	2	3	4	5
	3. Recognizes each student as a person of worth and dignity.	1	2	3	4	5
	4. Describes how attitudes and habits are formed by individuals.	1	2	3	4	5
	5. Describes how behavior can be modified or directed.	1	2	3	4	5
	<ol> <li>Identifies physical and mental problems that various students may posses.</li> </ol>	1	2	3	4	5

IV.

		unessential	unimportant	neither important nor unimportant	1mportant	essential
7.	Formulates and uses valid performance objectives to guide student learning.	1	2	. 3	4	5
8.	Develops and uses lesson plans for each lesson taught in the classroom and each laboratory phase.	1	2	3	4	5
9.	Uses techniques for developing identification, prediction, decision making and execution abilities in students (e.g., uses slides, verbal comments etc.).	1	2	3	4	5
10.	Maintains a record of vehicle and/or equipment malfunction so that proper repairs can be made.	1	2	3	4	5
11.	Develops and uses verbal and non-verbal communication techniques which facilitate learning.	1	2	3	4	5
12.	Identifies the competency level of each student upon entry into the program.	1	2	3	4	5
13.	Demonstrates a variety of teaching methods and techniques to facilitate student learning.	1	2	3	4	5
14.	Allows the student to progress at his/her own rate.	1	2	3	4	5
15.	Maintains student progress records and utilizes the data to facilitate instruction in meeting student needs.	1	2	3	4	5
16.	Uses instructional aids to facilitate instruction.	1	2	3	4	5
17.	Exercises necessary discipline measures for control of students.	1	2	3	4	5
18.	Employs sound techniques for orienting students for their laboratory experiences.	1	2	3	4	5
19.	Applies the results of research of the driving task to the selection and organization of the content for classroom and laboratory instruction.	1	2	3	4	5
20.	Applies the results of research in the selection and use of teaching methods, techniques and instructional materials.	1	2	3	4	5
21.	Designs and uses learning activities which assist the student in achieving the stated performance objective.	1	2	3	4	5
22.	Identifies knowledges, skills and attitudes that must be evaluated.	1	2	3	4	5
23.	Uses a selection criteria for identification of instruments and methods for evaluating classroom and laboratory performance.	1	2	3	4	5

			unessential	unimportant	neither important nor unimportant	1mportant	essential
	24.	Constructs and uses evaluation instruments for assessing student performance.	1	2	3	4	5
	25.	Employs a grading system based upon student performance objectives.	1	2	3	4	5
	26.	Demonstrates techniques for teaching eligible physically and mentally handicapped students.	1	2	3	4	5
В.	Cla	seroom					
	1.	Integrates classroom experiences with laboratory application.	1	2	3	4	5
	2.	Constructs or has constructed audio/visual materials that can be used in a performance-based individualized program.	1	2	3	4	5
	3.	Performs routine maintenance and care for all classroom equipment and materials.	1	2	3	. 4	5
	4.	Supervises the use of individualized instruction and other auxiliary equipment and materials.	1	2	3	4	5
	5.	Employs the values clarification process as it relates to traffic safety.	1	2	3	4	5
c.	Lab	oratory - Common to All					
	1.	Identifies the purpose, philosophy and rationale for traffic simulation, multiple-car range and on-street instruction.	1	2	3	4	5
	2.	Complies with Washington State Superintendent of Public Instruction requirements pertaining to traffic simulation, multiplecar range and on-street instruction.	1	2	3	4	5
	3.	Identifies the benefits of traffic simulation, multiple-car range and on-street instruction and utilizes them to improve student performance.	1	2	3	4	5
	4.	Identifies the limitations of traffic simulation, multiple- car range and on-street instruction and compensates for them in an effective manner.	1	2	3	4	5
	5.	Integrates traffic simulation and/or multiple-car range and/ or on-street with classroom instruction.	1	2	3	4	5
	6.	Applies the theories of learning applicable to traffic simula-					

		unessential	unimportant	neither important nor unimportant	1mportant	essential
	tion, multiple-car range and on-street instruction in plan- ning and implementing instruction.	1	2	3	4	5
7.	Conducts lessons in developmental sequence from simple to complex based on individual students needs and abilities.	1	2	3	4	5
8.	Defines and contrasts procedure and process teaching as applied to each laboratory phase of instruction (e.g., procedure = teacher dominates the learning environment, process = student permitted to make decisions).	1	2	3	4	5
9.	Performs routine maintenance and care for all equipment and vehicles used in the laboratory program (e.g., simulation, multiple-car range and on-street vehicles).	1	2	3	4	5
10.	Provides adequate security measures for all equipment and vehicles used in the laboratory program (e.g., simulation, multiple-car range, on-street).	1	2	3	4	5
11.	Follows procedures for providing adequate insurance coverage for equipment and vehicles as determined by State of Washington regulations.	1	2	3	4	5
12.	Guides student practice for maximum achievement by:					
	<ul> <li>a. recognition of common errors.</li> <li>b. providing feedback so students can recognize errors.</li> <li>c. providing practice until performance is acceptable.</li> <li>d. allowing for concentrated practice when skill is introduced</li> <li>e. providing cues and reminders.</li> <li>f. conducting drills with a variety of teaching techniques.</li> <li>g. providing effective demonstrations.</li> <li>h. giving good directions.</li> <li>i. providing positive reinforcement.</li> </ul>		2	3	4	5
13.	Structures lessons according to the major driving task clusters as found in the Washington State Curriculum Guide (e.g., basic control, traffic flow, critical systems).	1	2	3	4	5
14.	Describes the teacher and learner responsibilities at each driving task level for each phase of the laboratory instruction (e.g., basic control, traffic flow, critical systems).	1	2	3	4	5
15.	Demonstrates each skill, procedure or maneuver required of the beginning driver (e.g., simulation, multiple-car range, on-street as applicable or as time permits).	1	2	3	4	5
16.	Demonstrates and teaches emergency driving procedures and maneuvers (e.g., run-off-road, evasive steering, controlled braking, etc.).	1	2	3	۵	5

			unessential	unimportant	neither important nor unimportant	important	essential
	17.	Schedules students into traffic simulation, multiple-car range and on-street labs according to their needs and abilities.	1	2	3	4	5
	18.	Identifies those behaviors that should be evaluated in traffic simulation, multiple-car range and on-street instruction and sees that they are evaluated before allowing students to progress to the next lesson.	1	2	3	4	5
	19.	Selects, develops and employs evaluation techniques for each phase of the laboratory instruction (e.g., observation, checklists, electro-mechanical equipment, videotape, etc.).	1	2	3	4	5
	20.	Develops and uses communication techniques designed to meet the needs of the situation and type of laboratory instruction.	1	2	3	4	5
	21.	Concentrates in each laboratory phase on those objectives which can best be taught.	1	2	3	4	5
	22.	Adjusts objectives and teaching techniques in the car when traffic simulation and/or multiple-car driving range are available and used.	1	2	3	4	5
D.	Uni	que to Traffic Simulation					
	1.	Uses the fixed-base driving simulator method of instruction to develop the human functions (e.g., identification, prediction, decision making and execution skills).	1	2	3	4	5
	2.	Operates all control components that are essential in teaching in the fixed-base driving simulator.	1	2	3	4	5
	3.	Identifies the procedures for and operates the driving simulator system in automatic and manual scoring modes.	1	2	3	4	5
	4.	Identifies the procedures for and changes between automatic and manual scoring modes as necessary while teaching in the fixed-base driving simulator.	1	2	3	4	5
	5.	Uses procedures for ending the filmed presentation while in automatic and/or manual scoring mode.	1	2	3	4	5
	6.	Introduces the traffic simulator lesson by using enrichment instructional techniques such as:					
		a. Discussing situations that will be encountered in the film. b. conducting drills to assist performance. c. asking questions about film related topics. d. calling on students to interpret situations. e. using role playing situations, etc.	1	2	3	4	5

7.	Uses enrichment teaching aids to prepare the student for the film segment of the driving simulation lesson by selectively using:  a. slides	unessential	unimportant	neither important nor unimportant	1mportant	essential
	a. slides b. filmstrips	es	of m	eit	odu	38e
	c. charts	5	3	ěě	뒤	نة
	d. magnetic-board					
	e. handouts f. chalkboard, etc.	1	2	3	4	5
	·	•	-	,	•	,
8.	Uses instructional methods during the teaching of the film by:					
	<ul><li>a. stopping the film.</li><li>b. reversing the film.</li><li>c. interjecting ideas and comments with and without the</li></ul>					
	microphone. d. running the film with no sound.					
	e. still framing. f. using slow motion/time lapse, etc.	1	2	3	4	5
9.	Assesses the performance of students individually and as a grounduring the film and while practicing in a drill situation.	1	2	3	4	5
10.		1	2	3	4	5
11.	Actively teaches in the driving simulator and does not rely completely upon the film to present concepts, procedures and skills.	1	2	3	4	5
12.	Positions self so as to provide effective and efficient observation and instruction and avoid unnecessary distractions.	1	2	3	4	5
13.	Uses instructional aids during the film presentation by:					
	<ul><li>a. using the flashlight pointer.</li><li>b. using the microphone.</li></ul>					
	c. using other sounding devices, etc.	1	2	3	4	5
14.	Destinguishes between the parts of the driving task that will transfer positively and negatively to on-street driving and takes advantage or compensates for them while teaching (e.g., braking, steering, visual skills).	1	2	3	4	5
15.	Demonstrates a given procedure using the simulators and electronic feedback equipment, showing the responses necessary to correctly activate the equipment in response to programmed and/or coded media (e.g., showing proper steering, braking, signal-					
	ling, etc.).	1	2	3	4	5
16.	Interprets and uses the printed score sheet during the lessons taught in the fixed-base driving simulator.	1	2	3	4	5
17.	Justifies traffic simulation as a way of improving the quality and reducing costs of the traffic safety program.	1	2	3	4	5

			unessential	unimportant	neither important nor unimportant	<b>important</b>	essential
	18.	Identifies and discusses the factors to consider when planning for or designing a driving simulator facility.	1	2	3	4	5
	19.	Identifies and explains those component parts of the simulator system that are necessary for a quality program.	1	2	3	4	5
	20.	Describes and discusses the advantages and limitations of various types of simulator installations and optional equipment and states how each achieves the teaching of concepts.	1	2	3	4	5
	21.	Describes the principles involved in the transfer of learning from a simulated to a real task.	1	2	3	4	5
E.	Uni	que to Multiple-Car Range					
	1.	Demonstrates the proper placement and use of equipment essential for the effective teaching of each multiple-car range lesson (e.g., cones, flags, cars, etc.).	1	2	3	4	5
	2.	Prepares or has prepared each vehicle that will be used for the multiple-car range instruction prior to the arrival of the learners (a.g., communication system, numbers, etc.).	1	2	3	4	5
	3.	Develops and utilizes effective communication techniques which facilitate learning.	1	2	3	4	5
	4.	Maintains a good position at all times to:					
		<ul> <li>a. see cars by facing them.</li> <li>b. be where students can hear and see him.</li> <li>c. provide for the safety of all concerned.</li> <li>d. know what all vehicles are doing.</li> </ul>	1	2	3	4	5
	5.	Anticipates "potential conflict areas", and moves to a position near them before they develop.	1	2	3	4	5
	6.	Maintains complete control of the range at all times.	1	2	3	4	5
	7.	Describes the principles involved in the transfer of learning from a simulated to a real task.					
	8.	Defines the multiple-car range method of instruction.	1	2	3	4	5
	9.	Identifies and discusses the factors to consider when planning for or designing a multiple-car driving range facility.	1	2	3	4	5
	10.	Distinguishes between the three (3) major types of multiple-car driving ranges noting both advantages and disadvantages of each (e.g., basic control, traffic mix, advanced maneuvers).	1	2	3	4	5

			unessential	unimportant	neither important nor unimportant	<b>important</b>	essential
	11.	Describes the distinguishing features of a multiple-car driving range facility.	1	2	3	4	5
	12.	Justifies multiple-car driving range instruction as a way of improving the quality and reducing the cost of the traffic safety education program.	1	2	3	4	5
	13.	Provides for traffic mix situations thus enabling students to identify, predict, decide and execute in near real situations.	1	2	3	4	5
F.	Uni	que to On-Street					
	1.	Describes the inherent dangers involved in on-street instruction and takes necessary measures to minimize and avoid these dangers.	1	2	3	4	5
	2.	Develops and implements guidelines for determining the amount and distribution of on-street practice for skills taught.	1	2	3	4	5
	3.	Uses the limited amount of time for on-street instruction for the maximum benefit of the student.	1	2	3	4	5
	4.	Demonstrates and teaches the commentary driving technique (e. g., short narration of what one sees in the driving scene.	1	2	3	4	5
	5.	Demonstrates and teaches route and destination driving (e.g., going from one point to another with minimal aid from the instructor).	1	2	3	4	5
	6.	Uses control instruments when necessary to maintain safety and facilitate instruction (e.g., dual brake, steering wheel, etc.)	. 1	2	3	4	5
	7.	Uses techniques for involving the back seat observers during the instructional lesson (e.g., checklists, uses questions, etc.).	1	2	3	4	5
	8.	Groups students according to ability and needs.	1	2	3	4	5
	9.	Uses methods which ease anxiety, fear, etc. on the part of students when such a need arises.	1	2	3	4	5
1	10.	Maintains at all times a position within the vehicle for observation, instruction and control.	1	2	3	4	5
1	11.	Selects routes that will enable the student to best achieve objectives and prepare for future driving.	1	2	3	4	5
1	2.	Provides instruction in emergency driving techniques according to student ability and safety.	1	2	3	4	5

	13.	Maintains awareness of the traffic scene during on-street driv-	unessential	unimportant	neither important nor unimportant	1mportant	essential
25.		ing experiences and anticipates moves of the student driver to prevent occurrence of dangerous acts.	1	2	3	4	5
V.	Adm	inistrative Competencies					
	1.	Determines the number of instructors needed for the implementation of the local traffic safety education curriculum.	1	2	3	4	5
	2.	Uses record forms for students, equipment, vehicles and supplies as required by the local district and State Superintendent of Public Instruction.	1	2	3	4	5
	3.	Has a program organized to meet all state standards as found in the "Administrative Manual for Traffic Safety Education".	1	2	3	4	5
	4.	Selects those training devices that are most cost effective and beneficial to student learning with respect to established program objectives.		2	3	4	5
	5.	Schedules students into classroom and laboratory experiences according to their ability and level of competence.	1	2	3	4	5
	6.	Maintains adequate insurance coverage for vehicles, students, instructors and equipment as required by state law.	1	2	3	4	5
	7.	Insures that the traffic safety education program is available to all students including those who may be handicapped or out of school.	1	2	3	4	5
	8.	Provides for the routine maintenance of all equipment, materials, and media that is used in the traffic safety education program.	1	2	3	4	5
	9.	Constructs and uses appropriate forms and letters as required by state and local regulations.	1	2	3	4	5
	10.	Procures the types of automobiles needed for the program that will ensure quality but at the least expense to the school.	1	2	3	4	5
	11.	Equips or has equipped each vehicle to meet state requirements and to insure safety for students and teachers.	1	2	3	4	5
	12.	Reports all accidents or acts of vandalism to proper authorities immediately after the occurance.	1	2	3	4	5
	13.	Predicts common vehicle abuses and takes measures to insure that they are non-existent in the program.	1	2	3	4	5
	14.	Completes all necessary forms for state reimbursement.	1	2	3	4	5

		unessential .	unimportant	neither important nor unimportant	1mportant	essential
15.	Completes all necessary forms for certification of student drivers.	1	2	3	4	5
16.	Annually reviews budget and program needs with the administrator to insure adequate financial coverage.	1	2	3	4	5
17.	Assists in the policy development for the organization, supervision, planning and management of a district wide K-12 comprehensive traffic safety education program.	1	2	3	4	5
18.	Maintians a student record system adequate for reimbursement and other administrative purposes.	1	2	3	4	5
19.	Updates and replaces equipment, texts, resources and materials to keep abreast with latest trends in program implementation.	1	2	3	4	5
20.	Determines the per pupil costs considering both direct and indirect costs and maintains the program within a pre-determined budget.	1	2	3	4	5
21.	Maintains the traffic safety education vehicles as prescribed by the agreement form as supplied by the Superintendent of Public Instruction.	1	2	3	4	5
22.	Demonstrates a knowledge of state and federal regulations regarding program organization and administration.	1	2	3	4	5
23.	Requires that all traffic safety education instructors meet state certification requirements.	1	2	3	4	5
24.	Provides inservice workshops for all traffic safety education teachers in the district to insure their exposure to the latest teaching methods and techniques.	1	2	3	4	5
25.	Develops and uses a written enrollment criteria which states how students are accepted into a traffic safety course and when they are accepted.	1	2	3	4	5
26.	Demonstrates acceptable knowledge of program approval, and re- imbursement procedures as explained in the Traffic Safety Education Administrative Manual.	1	2	3	4	5
27.	Demonstrates ability to schedule classes and equipment according to needs.	1	2	3	4	5
28.	Demonstrates leadership for other instructors in the traffic safety education program.	1	2	3	4	5

VI.		pol/Community Relations Competencies	unessential	unimportant	neither important nor unimportant	Important	essential
	1.	Demonstrates ability to convey the nature and purpose of his traffic safety education program to persons outside the school community (e.g., parents, police, city council, etc.).	1	2	3	4	5
	2.	Demonstrates ability to convey the nature and purpose of his traffic safety education program to members of the school community (e.g., fellow teachers, administration, etc.).	1	2	3	4	5
	3.	Establishes and maintains positive relationships with automobile dealers and other private agents who can be supportive of the traffic safety education program.	1	2	3	4	5
	4.	Promotes a K-12 approach to traffic safety education to persons both inside and outside the school community.	1	2	3	4	5
	5.	Acts as a resource person to the school and community in regards to traffic safety (e.g., serves on committees, speaks to groups, etc.).	1	2	3	4	5
	6.	Encourages parental involvement in reinforcement of driving skills taught in the traffic safety education program.	1	2	3	4	5
	7.	Demonstrates the ability to acquaint parents with the traffic safety education program and encourages their support and participation.	1	2	3	4	5
	8.	Encourages self and student involvement in community traffic safety activities designed to improve the quality of the traffic safety program.	1	2	3	4	5
	9.	Demonstrates ability to use the local media to promote traffic safety education in the community.	1	2	3	4	5
	10.	Uses practice driving vehicles only for instructional purposes or other uses as authorized by the Superintendent of Public Instruction.	1	2	3	4	5
VII.	Mai	ntaining Professional Competence					
	1.	Improves professional competence through attendance at workshops, seminars, in-service days, and other courses and meetings related to traffic safety education.	1	2	3	4	5
	2.	Uses instructor and program evaluation data to formulate a plan for improvement of professional competence.	1	2	3	4	5
	3.	Demonstrates good physical appearance and practices personal hygine habits commensurate with that of other teachers according to established district policy.	1	2	3	4	5

		unessential	unimportant	neither important nor unimportant	1mportant	essential
4.	Is active in local, state and national professional organizations that promote traffic and safety education.	1	2	3	4	5
5.	Follows the professional code of ethics as prescribed by local school district and state associations.	1	2	3	4	5
6.	Reads traffic safety education professional publications and contributes when appropriate.	1	2	3	4	5
7.	Demonstrates self-initiative for developing self and peers to increasing levels of competence and confidence in traffic safety education.	1	2	3	4	5
8.	Seeks opportunities to receive more formal preparation leading toward advanced degrees.	1	2	3	4	5

## SAMPLE FOLLOW-UP LETTER

Dear

This is a reminder that I have not yet received your completed copy of the instrument Competencies For Traffic Safety Education Teachers that was mailed to you approximately three weeks ago.

As mentioned previously, your assistance is extremely important for the state of Washington and vital for the completion of my doctoral study.

The completion of the instrument will take approximately 2-3 hours of your time. If you have not done so yet, I would encourage you to complete the instrument and return it to me by May 29, 1975.

If you have already completed and mailed the instrument by the time you receive this letter please ignore this reminder.

Thank you for your assitance in this matter.

Sincerely,

# APPENDIX C INDIVIDUAL AND COMBINED GROUP MEAN SCORES

Table 4

Individual and Combined
Group Mean Scores

Statement	Group 1	Group 2	Group 3	Group 4	Group 5	Group 6	Group 7	Total Mean
I. Safet	y Educat	ion/Accie	dent Pre	vention			-	
1.	4.00	4.00	4.13	4.25	3.88	4.50	4.33	4.14
2.	3.88	3.88	4.50	4.38	3.63	3.86	4.33	4.04
3.	3.75	3.63	3.88	3.75	3.63	3.50	4.33	3.73
<b>4</b> .	4.13	3.88	3.88	4.00	4.25	4.25	5.00	4.12
5. 6.	4.00	4.00	4.00	4.00	4.13	4.13	4.33	4.06
	4.75	4.68	4.38	4.63	4.63	4.75	4.67	4.63
7. 8.	4.88	4.75 3.88	4.50	4.88	4.63	4.75	4.67	4.73
	3.38		3.63	4.50	4.13	3.25	5.00	3.86
9.	4.00 3.88	4.25	4.13	4.25	4.13	3.88	4.33	4.12
10. 11.	4.00	4.00	4.00	4.38 4.63	4.00	3.75	3.67	3.98
12.	<b>3.6</b> 3	3.75 3.63	3.75 3.88	4.63 3.88	4.50	4.38	4.00	4.16
13.	4.00	3.88			4.25	3.75	3.67	3.82
14.	4.38	4.38	4.25 4.50	4.25 4.50	4.13 4.57	4.25	3.67	4.10
15.	3.00	3.88	3.71	4.50 4.13	4.77 3.38	4.38	4.67 4.00	4.46 3.56
1).	3.00	3.00	3.11	4.13	3.30	3.13	4.00	3.70
II. Person	nal Driv	ing Perf	ormance					
1.	4.88	4.50	4.75	4.75	4.38	4.25	4.67	4.59
2.	5.00	4.88	4.75	4.75	4.00	4.63	4.33	4.65
3∙	5.00	4.75	4.75	4.88	4.00	4.75	4.33	4.67
4.	4.50	4.38	4.88	4.63	3.88	4.50	4.00	4.43
5.	3.88	4.38	4.75	4.25	4.00	4.38	4.33	4.27
6.	4.88	5.00	5.00	4.38	4.75	4.88	4.67	4.80
7.	5.00	5.00	4.88	4.50	4.63	4.75	5.00	4.80
8.	4.63	4.88	4.75	4.38	4.50	4.00	4.67	4.53
9•	3.75	4.63	4.38	4.13	4.00	4.25	4.33	4.20
10.	4.75	4.88	4.75	4.25	4.25	4.88	4.67	4.63
III. Curri	culum De	velopmen	<u>t</u>					
1.	5.00	4.50	4.75	4.38	4.75	4.38	4.67	4.63
2.	4.63	4.50	4.75	4.63	4.50	4.30	4.00	4.49
3.	4.88	4.63	5.00	4.75	4.63	4.13 4.38	4.67	4.71
4.	4.75	4.38	4.50	4.25	4.25	4.25	4.67	4.41
5.	4.88	4.88	4.75	4.75	4.75	4.63	5.00	4.78
<b>6.</b>	4.50	4.50	4.63	4.50	4.38	4.50	4.67	4.51
<b>7.</b>	4.50	4.88	4.63	4.75	4.63	4.50	4.67	4.65
, •	,			7017	7.05	<del>-</del> • )0	7.01	7.07

Table 4 (continued)

Statement	Group 1	Group .	Group 3	Group 4	Group 5	Group 6	Group 7	Total Mean
Curriculum	Develop	ment (co	ntinued)		· · · · · · · · · · · · · · · · · · ·		· · · · · · · · · · · · · · · · · · ·	
8.	4.75	4.75	4.63	4.75	4.38	4.13	4.67	4.57
9. 10.	4.50 4.63	4.25 4.75	4.38 4.63	4.13	4.25	4.50	3.67	4.29
10.	4.88	4.88	4.03 4.75	4.75 4.75	4.38	4.63	4.67	4.63
12.	4.38	4.63	4.75		5.00	4.25	5.00	4.76
13.	4.75	4.03 4.38	4.38	4.38 4.63	4.25	4.13	5.00	4.41
14.	4.75	4.00	4.50		4.25	4.00	5.00	4.43
15.	4.63	4.38	4.38	4.50	4.25	4.13	4.33	4.29
16.	4.63	4.75		4.63	4.38	4.00	4.67	4.41
17.	4.50	4.75	4.25 4.25	4.75	4.13	4.63	4.67	4.53
18.	4.25	4.25	4.50	4.75	4.00	4.13	4.33	4.35
19.	4.63	4.29	4.38	4.38 4.38	4.50 4.38	4.00	4.33	4.31
20.	4.63	4.63	4.38	4.63	4.50 4.50	4.38	4.00	4.39
20.	4.00	4.63 4.63	4.50	4.03	4.25	4.50	4.67	4.55
22.	4.00	3.25	3.88	<b>3.7</b> 5	4.29	4.63 3.63	4.33	4.39
23.	4.00	3.75	4.25	4.13	4.29 4.13	3.75	3.67 4.00	3.78 4.00
24.	4.13	3.88	4.13	4.13 4.38	4.13	4.38	4.33	4.18
25.	4.88	4.25	4.38	4.63	4.38	4.25	4.67	4.47
26.	3.38	3.38	3.63	4.00	3.50	2.75	4.33	3.49
27.	4.00	3.63	3.88	4.00	3.63	3.13	4.67	3.76
28.	3.63	3.50	4.00	3.88	3.88	3.13	4.67	3.73
29.	3.88	3.63	4.13	4.38	3.63	4.25	4.33	4.00
30.	3.50	3.50	4.00	4.00	3.50	3.63	4.00	3.71
31.	3.63	3.63	4.00	4.00	3.38	3.43	4.67	3.74
32.	3.25	3.13	3.63	3.25	3.00	2.75	4.00	3.22
33.	3.00	3.13	3.25	3.38	2.75	2.63	4.00	3.08
34.	4.50	4.63	4.38	4.25	4.63	4.25	4.67	4.45
35•	4.25	4.63	4.38	4.38	4.38	4.38	4.00	4.38
36.	4.38	4.25	4.00	4.13	4.25	4.63	4.00	4.25
37.	4.75	4.75	4.88	4.88	4.63	4.75	4.67	4.76
38.	4.63	4.75	4.75	4.63	4.75	4.50	4.67	4.67
39.	3.38	3.50	3.63	3.75	3.50	3.25	3.67	3.51
40.	4.38	4.50	4.13	3.88	4.13	3.50	4.33	4.10
IV. Instr	uctional	Competer	ncies					
A. <u>C</u>	ommon to	Both Cla	ssroom	and Labor	ratory			
1.	4.75	4.50	4.88	4.63	5.00	4.63	5.00	4.75
2.	5 00	4.63	). 7E	1. 75	1. 00	ار م	· 00	4.73

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Table 4 (continued)

Statement	Group 1	Group 2	Group 3	Group 4	Group 5	Group 6	Group 7	Total Mean
Common to	Both Cla	ssroom a	nd Labore	atory (co	ontinued	)		
3. 4. 5. 6. 7. 8. 9. 10. 11. 12. 13. 14. 15. 16. 17. 18. 19. 20. 21. 22. 23. 24. 25.	4.75 4.63 4.63 4.63 4.63 4.63 4.63 4.63 4.63	4.63 4.30 4.50 4.57 4.75 4.63 4.50 4.50 4.50 4.50 4.50 4.50 4.50 4.50	4.63 4.63 4.53 4.53 4.53 4.53 4.53 4.53 4.53 4.5	4.88 4.25 4.63 4.63 4.63 4.63 4.63 4.63 4.63 4.63	4.630 4.500 4.338 4.638 4.638 4.525 5.250	4.63 4.38 4.13 4.00 4.50 4.13 4.75 4.13 4.75 4.38 4.75 4.50 4.50 4.50 4.50 4.50 4.50 4.50 4.5	5.00 4.33 4.67 4.63 4.67 4.67 4.67 4.67 4.67 4.67 4.67 4.67	4.47 4.41 4.53 4.45 4.53 4.51 4.54 4.54 4.55 4.55 4.50 4.50 4.50
B. Clas	ssroom							
1. 2. 3. 4.	5.00 4.25 4.75 4.50 3.86	4.75 4.13 3.88 4.13 4.25	4.75 4.13 3.88 4.13 4.13	5.00 4.38 4.38 4.38 4.00	4.75 4.13 3.88 4.00 4.43	4.50 4.38 3.88 4.50 3.50	4.67 4.00 4.00 4.00 4.00	4.78 4.22 4.10 4.25 4.02
	oratory	- Common	to All					
1. 2. 3. 4. 5. 6.	3.88 4.50 4.00 4.25 4.75 4.13	4.50 4.63 4.63 4,50 4.63 4.38	4.25 4.25 4.38 4.50 4.75 4.38	4.50 4.63 4.25 4.63 4.50 4.50	4.38 4.25 4.38 4.50 4.75 4.25	4.13 4.63 4.38 4.25 4.38 4.00	4.67 4.50 4.33 4.67 4.67 4.33	4.29 4.48 4.33 4.45 4.63 4.27

Table 4 (continued)

Statement	Group 1	Group 2	Group 3	Group 4	Group 5	Group 6	Group 7	Totel Mean
La	borstory	- Common	to All	(continue	ed)			
7.	4.50	4.75	4.88	4.75	4.38	4.38	5.00	4.63
8.	4.63	4.50	4.13	4.25	4.00	3.38	4.00	4.14
9.	4.75	4.00	3.50	4.38	3.63	3.63	4.00	3.98
10.	4.38	4.13	4.50	4.50	4.25	4.25	3.67	4.29
11.	4.25	3.75	4.13	4 <b>.7</b> 5	4.25	4.75	4.33	4.31
12.	5.00	4.88	5.00	4.88	4.88	4.88	5.00	4.92
13.	4.63	4.38	4.75	4.25	4.50	4.38	4.00	4.45
14.	4.38	4.13	4.25	4.38	4.38	3.88	4.00	4.22
15.	4.50	4.25	4.38	3.88	<b>3.8</b> 8	4.38	3.67	4.18
16.	4.13	3.88	3.75	4.13	<b>3.</b> 63	4.25	4.00	3.96
17.	4.50	4.50	4.75	4.86	4.25	4.38	3.67	4.48
18.	4.63	4.50	4.38	4.71	4.50	4.38	4.33	4.50
19.	4.25	4.25	4.25	4.29	4.50	4.13	4.33	4.28
20.	4.38	4.63	4.50	3.86	4.25	4.13	4.67	4.32
21.	4.25	4.63	4.13	4.29	4.38	4.13	4.33	4.30
22.	4.63	4.75	4.25	4.14	4.25	4.13	4.33	4.36
D. Un	ique to T	raffic S	imulatio	n				
				_				
1.	3.63	4.38	4.00	- 4.38	4.25	3.88	4.67	4.12
1. 2.	3.63 3.88	4.38 4.25	4.00 4.17	4.38 4.63	4.25 4.50	3.88 4.00	4.67 4.33	4.12
2.	3.88	4.25	4.17	4.63	4.50	4.00	4.33	4.24
	3.88 3.88	4.25 4.50	4.17 3.83	4.63 4.50	4.50 4.13	4.00 3.88	4.33 4.33	4.24 4.14
2. 3. 4.	3.88 3.88 4.13	4.25	4.17 3.83 3.83	4.63 4.50 4.25	4.50 4.13 4.00	4.00 3.88 3.63	4.33 4.33 4.00	4.24 4.14 4.04
2. 3.	3.88 3.88	4.25 4.50 4.38	4.17 3.83 3.83 4.20	4.63 4.50 4.25 4.50	4.50 4.13 4.00 4.13	4.00 3.88 3.63 3.50	4.33 4.33 4.00 4.00	4.24 4.14 4.04 4.02
2. 3. 4. 5.	3.88 3.88 4.13 3.75	4.25 4.50 4.38 4.14	4.17 3.83 3.83	4.63 4.50 4.25 4.50 4.38	4.50 4.13 4.00 4.13 4.38	4.00 3.88 3.63 3.50 4.00	4.33 4.33 4.00 4.00 4.33	4.24 4.14 4.04 4.02 4.31
2. 3. 4.	3.88 3.88 4.13 3.75 4.13	4.25 4.50 4.38 4.14 4.63	4.17 3.83 3.83 4.20 4.33	4.63 4.50 4.25 4.50	4.50 4.13 4.00 4.13 4.38 4.13	4.00 3.88 3.63 3.50 4.00 4.50	4.33 4.33 4.00 4.00 4.33 4.33	4.24 4.14 4.04 4.02 4.31 4.35
2. 3. 4. 5. 6. 7. 8.	3.88 3.88 4.13 3.75 4.13 4.38	4.25 4.50 4.38 4.14 4.63 4.25	4.17 3.83 3.83 4.20 4.33 4.17 4.33	4.63 4.50 4.25 4.50 4.38 4.63	4.50 4.13 4.00 4.13 4.38 4.13 4.50	4.00 3.88 3.63 3.50 4.00	4.33 4.33 4.00 4.00 4.33 4.33	4.24 4.14 4.04 4.02 4.31 4.35 4.22
2. 3. 4. 5. 6. 7.	3.88 3.88 4.13 3.75 4.13 4.38 3.88	4.25 4.50 4.38 4.14 4.63 4.25 4.50	4.17 3.83 3.83 4.20 4.33 4.17	4.63 4.50 4.25 4.50 4.38 4.63 4.25	4.50 4.13 4.00 4.13 4.38 4.13	4.00 3.88 3.63 3.50 4.00 4.50 3.88	4.33 4.00 4.00 4.33 4.33 4.33 4.33	4.24 4.14 4.04 4.02 4.31 4.35 4.22 4.33
2. 3. 4. 5. 6. 7. 8. 9.	3.88 3.88 4.13 3.75 4.13 4.38 3.88 4.50	4.25 4.50 4.38 4.14 4.63 4.25 4.50	4.17 3.83 3.83 4.20 4.33 4.17 4.33 4.33	4.63 4.50 4.25 4.50 4.38 4.63 4.25 4.38	4.50 4.13 4.00 4.13 4.38 4.13 4.50 4.25 4.38	4.00 3.88 3.63 3.50 4.00 4.50 3.88 4.00	4.33 4.00 4.00 4.33 4.33 4.33 4.67	4.24 4.14 4.04 4.02 4.31 4.35 4.22 4.33 4.41
2. 3. 4. 5. 6. 7. 8. 9.	3.88 3.88 4.13 3.75 4.13 4.38 3.88 4.50 4.25	4.25 4.50 4.38 4.14 4.63 4.25 4.50 4.50 4.38	4.17 3.83 3.83 4.20 4.33 4.17 4.33 4.33 4.17	4.63 4.50 4.25 4.50 4.63 4.63 4.63 4.63	4.50 4.13 4.00 4.13 4.38 4.13 4.50 4.25	4.00 3.88 3.63 3.50 4.00 4.50 4.50 4.88	4.33 4.00 4.00 4.33 4.33 4.33 4.33	4.24 4.04 4.02 4.31 4.35 4.22 4.33 4.41 4.65
2. 3. 4. 5. 6. 7. 8. 9. 10. 11. 12.	3.88 3.88 4.13 3.75 4.13 4.38 3.88 4.50 4.25 4.63	4.25 4.50 4.38 4.14 4.63 4.50 4.50 4.50 4.50 4.50 4.50	4.17 3.83 3.83 4.20 4.33 4.17 4.33 4.17 4.67 4.50 3.83	4.63 4.50 4.25 4.50 4.38 4.63 4.25 4.38 4.63 4.50	4.50 4.13 4.00 4.13 4.38 4.13 4.50 4.25 4.38 4.63	4.00 3.88 3.63 3.50 4.00 4.50 3.88 4.00 4.50	4.33 4.00 4.00 4.33 4.33 4.33 4.67 4.67	4.24 4.14 4.04 4.02 4.31 4.35 4.22 4.33 4.41
2. 3. 4. 5. 6. 7. 8. 9. 10.	3.88 3.88 4.13 3.75 4.13 4.38 3.88 4.50 4.25 4.63 4.38	4.25 4.50 4.38 4.14 4.63 4.50 4.50 4.50 4.50	4.17 3.83 3.83 4.20 4.33 4.17 4.33 4.17 4.67 4.50	4.63 4.50 4.25 4.50 4.38 4.63 4.25 4.63 4.63 4.75	4.50 4.13 4.00 4.13 4.38 4.13 4.50 4.25 4.38 4.63 4.25	4.00 3.88 3.63 3.50 4.00 4.50 4.50 4.88 4.38	4.33 4.00 4.00 4.33 4.33 4.33 4.67 4.67 4.67	4.24 4.04 4.02 4.31 4.35 4.22 4.33 4.41 4.65 4.43 4.18
2. 3. 4. 5. 6. 7. 8. 9. 10. 11. 12. 13.	3.88 3.88 4.13 3.75 4.13 4.38 4.50 4.63 4.38 4.00 4.38 4.38	4.25 4.58 4.14 4.63 4.50 4.50 4.50 4.50 4.50	4.17 3.83 3.83 4.20 4.33 4.17 4.33 4.17 4.67 4.50 3.83	4.63 4.50 4.25 4.50 4.63 4.63 4.63 4.63 4.63 4.50 4.75 4.38	4.50 4.13 4.00 4.13 4.38 4.13 4.50 4.25 4.38 4.63 4.25 4.38	4.00 3.88 3.63 3.50 4.00 4.50 4.50 4.88 4.38 4.13	4.33 4.00 4.00 4.33 4.33 4.33 4.67 4.67 4.67 4.67	4.24 4.04 4.02 4.31 4.35 4.22 4.33 4.41 4.65 4.43 4.18
2. 3. 4. 5. 6. 7. 8. 9. 10. 11. 12. 13.	3.88 3.88 4.13 3.75 4.13 4.38 4.50 4.63 4.63 4.38 4.00 4.38	4.25 4.50 4.38 4.14 4.63 4.50 4.50 4.50 4.63 4.63	4.17 3.83 3.83 4.20 4.33 4.17 4.33 4.17 4.67 4.50 3.83 4.67	4.63 4.50 4.25 4.50 4.63 4.63 4.63 4.50 4.75 4.63	4.50 4.13 4.00 4.13 4.38 4.13 4.50 4.25 4.38 4.63 4.38 4.38	4.00 3.88 3.63 3.50 4.50 4.50 4.50 4.38 4.38 4.38	4.33 4.00 4.00 4.33 4.33 4.67 4.67 4.67 4.67 4.33	4.24 4.04 4.02 4.35 4.22 4.33 4.41 4.65 4.18 4.53 4.33
2. 3. 4. 5. 6. 7. 8. 9. 10. 11. 12. 13. 14. 15.	3.88 3.88 4.13 3.75 4.13 4.38 4.50 4.63 4.38 4.00 4.38 4.38	4.25 4.58 4.14 4.63 4.50 4.50 4.50 4.50 4.50	4.17 3.83 3.83 4.20 4.33 4.17 4.33 4.17 4.67 4.67 4.67 4.67	4.63 4.50 4.55 4.50 4.63 4.63 4.63 4.75 4.63 4.63 4.63 4.63	4.50 4.13 4.00 4.13 4.13 4.50 4.25 4.38 4.38 4.38 4.38 3.88 3.88	4.00 3.88 3.63 3.50 4.50 4.50 4.50 4.38 4.50 4.38 4.38 4.38 4.38 4.38	4.33 4.00 4.00 4.33 4.33 4.33 4.67 4.67 4.67 4.67 4.67 4.67	4.24 4.04 4.02 4.31 4.35 4.22 4.33 4.41 4.65 4.18 4.53
2. 3. 4. 5. 6. 7. 8. 9. 10. 11. 12. 13. 14. 15. 16. 17.	3.88 3.88 4.13 3.75 4.13 4.38 4.50 4.63 4.38 4.38 4.38 4.38 4.38	4.25 4.50 4.38 4.14 4.63 4.50 4.50 4.50 4.63 4.50 4.50 4.63 4.50 4.63	4.17 3.83 3.83 4.20 4.33 4.17 4.33 4.17 4.67 4.67 4.67 4.67 4.17	4.63 4.50 4.50 4.50 4.63 4.63 4.63 4.63 4.63 4.63 4.63 4.63	4.50 4.13 4.00 4.13 4.38 4.50 4.25 4.38 4.38 4.38 4.38 3.88 3.88	4.00 3.88 3.63 3.50 4.50 4.50 4.50 4.58 4.13 4.58 4.38 4.38 4.38 4.38 4.38	4.33 4.00 4.00 4.33 4.33 4.67 4.67 4.67 4.67 4.33	4.14 4.04 4.02 4.31 4.35 4.43 4.41 4.65 4.18 4.53 4.33 3.80
2. 3. 4. 5. 6. 7. 8. 9. 10. 11. 12. 13. 14. 15. 16. 17. 18.	3.88 3.88 4.13 3.75 4.38 4.50 4.63 4.38 4.38 4.38 4.38 3.63	4.25 4.50 4.38 4.63 4.50 4.50 4.50 4.50 4.50 4.50 4.50 4.50	4.17 3.83 3.83 4.20 4.33 4.17 4.33 4.17 4.67 4.67 4.67 4.67 4.67 4.67	4.63 4.50 4.50 4.50 4.63 4.63 4.63 4.63 4.75 4.63 4.63 4.63 4.75 4.63 4.63	4.50 4.13 4.00 4.13 4.13 4.50 4.25 4.38 4.38 4.38 4.38 3.88 3.88	4.00 3.88 3.63 3.50 4.50 4.50 4.50 4.38 4.50 4.38 4.38 4.38 4.38 4.38	4.33 4.00 4.00 4.33 4.33 4.33 4.67 4.67 4.67 4.33 4.67 4.33	4.24 4.04 4.02 4.31 4.35 4.22 4.33 4.41 4.65 4.43 4.53 4.53 4.53 4.53
2. 3. 4. 5. 6. 7. 8. 9. 10. 11. 12. 13. 14. 15. 16.	3.88 3.88 4.13 3.75 4.38 3.88 4.50 4.25 4.63 4.38 4.38 4.38 4.38 4.38	4.25 4.50 4.38 4.63 4.50 4.50 4.50 4.50 4.50 4.50 4.50 4.50	4.17 3.83 3.83 4.20 4.33 4.17 4.33 4.17 4.67 4.67 4.67 4.67 4.17	4.50 4.50 4.50 4.50 4.50 4.63 4.63 4.50 4.75 4.63 4.50 4.63 4.50 4.63 4.63 4.63 4.63 4.63 4.63 4.63 4.63	4.13 4.00 4.13 4.13 4.50 4.25 4.38 4.25 4.38 4.38 4.38 4.38 4.38 4.38 4.38	4.00 3.88 3.63 3.50 4.50 3.88 4.50 4.58 4.38 4.50 4.38 3.88 3.50	4.33 4.00 4.00 4.33 4.33 4.33 4.67 4.67 4.67 4.33 4.33 4.33	4.24 4.04 4.02 4.31 4.35 4.22 4.33 4.41 4.65 4.43 4.53 4.18 4.53 4.18

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Table 4 (continued)

Statement	Group 1	Group 2	Group 3	Group 4	Group 5	Group 6	Group 7	Tota] Mean
E. Uni	que to M	ultiple-	Car Reng	<u>e</u>			- <del></del>	
1.	4.50	4.63	4.43	4.63	4.14	4.00	4.00	4.37
2.	4.50	4.63	4.29	4.50	4.57	4.00	4.67	4.43
3.	4.50	4.88	4.43	4.75	4.43	4.38	4.67	4.57
4.	4.50	4.88	4.57	5.00	4.57	4.75	5.00	4.73
5.	4.50	4.75	4.43	4.75	5.00	4.75	4.67	4.69
6.	4.50	4.75	4.71	5.00	4.86	4.88	4.67	4.78
7.	3.50	4.17	3.67	4.00	4.60	4.40	5.00	4.19
8.	4.00	4.13	3.86	3.88				
					4.29	4.25	3.67	4.04
9.	4.25	3.88	3.86	3.63	4.29	4.00	4.00	3.98
10.	4.13	3.75	3.86	4.00	4.14	3.75	4.00	3.94
11.	4.25	4.00	3.71	4.13	4.14	3.75	4.00	4.00
12.	3.88	4.00	3.71	4.00	4.14	4.38	4.00	4.02
13.	4.38	4.63	4.00	4.75	4.71	4.63	4.33	4.51
F. Uni	que to O	n-Street						
1.	4.63	4.63	4.75	4.75	4.63	4.63	4.67	4.67
2.	4.50	4.38	4.25	4.50	4.63	4.63	4.67	4.49
3.	4.75	5.00	4.50	4.88	4.50	4.88	5.00	4.76
4.	4.00	4.13	4.25	4.50	4.13	4.75	4.33	4.29
5.	4.00	4.00	4.13	4.38	4.63	4.50	4.00	4.25
<b>6.</b>	4.88	4.63	4.75	4.88	4.63	4.88	4.67	4.76
7.	4.00	4.50	4.00	4.50	4.50			
8.	4.00					4.25	4.33	4.29
		3.75	3.38	4.50	4.00	4.13	4.33	3.98
9.	4.88	4.75	4.75	4.63	4.38	4.63	4.33	4.65
10.	4.88	4.75	4.88	5.00	4.88	4.88	4.67	4.86
n.	4.75	4.75	4.63	4.88	4.63	4.63	5.00	4.73
12.	4.50	4.13	4.63	4.50	4.25 .	4.63	5.00	4.47
13.	4.75	4.88	4.88	4.88	4.75	4.88	5.00	<b>4.</b> 84
V. Admin	istrativ	e Compete	encies	•			• .	
1.	4.63	3.88	4.75	4.38	4.38	4.38	4.67	4.25
2.	4.63	4.63	4.50	4.75	4.63	4.63	4.67	4.63
3.	4.50	4.50	4.63	4.75	4.63	4.63	4.00	4.57
4.	4.74	4.38	4.13	4.50	4.25	4.75	4.67	4.47
5.	4.13	3.75	3.63	4.63	4.13	4.25	4.33	4.10
6.	4.75	4.00	3.50	4.75	4.63			
7.	4.50	4.13				4.88	4.67	4.43
ſ •	· <b>~• JU</b>	4.13	3.50	4.63	4.50	4.25	4.33	4.25

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Table 4 (continued)

Statement	Group 1	Group 2	Group 3	Group 4	Group 5	Group 6	Group 7	Tota] Mean
Admin	istrativ	e (conti	nued)					
8.	4.63	4.38	3.75	4.50	4.38	4.13	4.67	4.31
9•	4.38	4.38	4.25	4.38	4.50	4.38	4.67	4.39
10.	4.63	4.00	3.88	4.38	4.50	4.63	4.67	4.35
11.	4.75	4.13	3.88	4.88	4.75	4.75	5.00	4.55
12.	4.75	5.00	4.75	4.63	4.63	4.75	4.67	4.75
13.	4.75	4.63	4.38	4.38	4.25	4.63	4.50	4.50
14.	4.63	4.88	4.63	4.75	4.50	4.75	4.67	4.69
15.	4.88	4.75	4.63	4.63	4.63	4.88	5.00	4.75
16.	4.63	4.50	4.38	4.50	4.88	4.63	4.67	4.59
17.	4.13	4.00	4.25	4.25	4.38	3.25	4.33	4.22
18.	4.75	4.88	4.63	4.50	4.63	4.50	5.00	4.67
19.	4.75	4.50	4.38	4.50	4.38	4.75	4.67	4.55
20.	4.63	4.00	3.50	4.38	4.50	4.75.	4.67	4.31
21.	4.75	4.38	4.00	4.50	4.63	4.75	4.67	4.51
22.	4.50	3.88	4.00	4.38	4.25	4.17	4.67	4.22
23.	4.88	4.13	4.13	5.00	4.88	4.75	4.67	4.63
24.	4.50	3.75	3.63	4.25	4.13	4.50	4.00	4.12
25.	4.63	4.63	3.75	4.50	4.63	4.38	4.67	4.43
26.	4.38	4.13	3.88	4.38	4.50	4.25	4.33	4.25
27.	4.63	4.13	4.13	4.63	4.63	4.38	4.33	4.41
28.	4.63	4.50	4.00	4.50	4.63	4.75	4.33	4.49
VI. Schoo	1/Commun	ity Rela	tions Con	mpetenci	es			
1.	4.63	4.25	4.13	4.50	4.50	4.63	4.33	4.43
2.	4.63	4.38	4.00	4.38	4.38	4.63	4.00	4.37
3.	5.00	4.63	<b>3.7</b> 5	4.75	4.75	4.63	4.67	4.59
4.	4.25	4.38	3.88	4.38	4.38	4.63	4.67	4.33
5.	4.50	4.13	4.00	4.38	4.13	4.75	4.33	4.31
6.	4.75	4.88	4.25	4.50	4.38	4.88	4.33	4.59
7.	4.75	4.25	3.75	4.38	4.50	4.75	4.33	4.39
8.	4.75	4.25	4.00	4.25	4.00	4.88	4.33	4.35
9•	4.63	<b>3.</b> 88	3.71	3.75	4.25	4.38	3.67	4.08
10.	4.75	4.75	4.63	4.63	4.75	4.88	4.67	4.73
VII. Maint	ining P	rofession	nal Comp	etence				
1.	4.88	4.25	4.86	4.50	4.50	4.88	4.67	4.64
2.	4.50	4.38	4.29	4.25	4.25	4.63	4.67	4.40
	4.88	4.38	4.29	4.50	4.38	5.00	4.67	4.58

Table 4 (continued)

Statement	Group	Group	Group Group Gr		Group	Group	Group	Total	
	1	2	3 4		5	6	7	Mean	
Maintaining Professional Competence (continued)									
4.	4.38	4.25	4.00	4.00	3.71	4.00	4.00	4.06	
5.	4.75	4.63	4.50	4.63	4.29	4.63	4.67	4.58	
6.	4.50	4.29	3.88	3.75	4.14	4.63	4.33	4.20	
7.	4.63	4.25	4.25	4.00	4.14	4.50	4.67	4.32	
8.	4.25	4.00	3.75	3.88	4.00	4.13	4.33	4.02	

# APPENDIX D CONTENT AND ACCEPTABILITY OF COMPETENCY STATEMENTS

# COMPETENCIES FOR THE TRAFFIC SAFETY EDUCATION TEACHER

			Automatically accepted	Questionable- accepted	Questionable- not accepted	Autometically not accepted
I.	Saf	ety Education/Accident Prevention Competencies	Automat1 accepted	est1	esti tac	toma tac
	1.	Identifies and describes major contributions toward a safe environment and the prevention of accidents by specific forces and agencies (e.g., legislation, education, mechanical safe	Aut	Q, <b>e</b>	Out lou	Au
		guards).	x			
	2.	Contrasts the philosophies of "safety for" and "safety from" (e.g., positive approach versus negative approach).	x			
	3.	Develops a definition of an accident and compares with "common definitions.	11		x	
	4.	Analyzes the current accident problems in the United States and the State of Washington, and formulates ways of reducing all types of accidents.	x			
	5.	Describes and contrasts accident causation models (e.g., epidemiological, behavioral, decision making, etc.).	×			
	6.	Describes known psychological factors involved in accident causation and prevention and formulates ways of teaching these factors (e.g., emotions, attitudes, values, etc.).	x			
	7.	Describes known physiological factors involved in accident causation and prevention and formulates ways of teaching these factors (e.g., fatigue, alcohol, drugs, etc.).	×			
	8.	Identifies and describes the legal responsibilities and duties of teachers and other school personnel as related to accident causation and prevention.			x	
	9.	Identifies curriculum alternatives for incorporating safety in school programs and selects the most effective for implementation (e.g., unit plan, correlation, etc.).	x			
	10.	Identifies and describes basic principles in planning and implementing school safety programs.	e. <b>=</b>	x		
	11.	Identifies both school and community responsibilities in developing and implementing K-12 school safety education programs (e.g., bicycle, pedestrian, etc.).	- x			
	12.	Explains the application of learning theories to traffic and safety education (e.g., primacy, recency, vividness, etc.).			x	
	13.	Describes the physical, mental and attitudinal developmental characteristics of children, teenagers and adults as related to safety education.	×			
	14.	Explains the relationship between risk acceptance and decision making.	x			

Questionableaccepted Questionable-

·	15.	byprofile procedure for activating an emergency medical services	Automatically accepted
		system under varying conditions.	
II.	Per	sonal Driving Performance Competencies	
•	1.	Demonstrates a knowledge of vehicle dynamics (e.g., acceleration, braking, cornering, etc.).	x
	2.	Performs all basic control tasks that are required of beginning drivers (e.g., turns, parking, starting procedures, etc.).	x
	3.	Performs all traffic flow tasks that will be taught to beginning drivers (e.g., merging, passing, following, etc.).	x
	4.	Performs emergency vehicle procedures that would be taught to all students (e.g., power loss, stuck accelerator, brake failure, etc.).	x
	5.	Performs advanced emergency traffic procedures that would be taught to capable student learners (e.g., controlled braking, run-off-road, evasive steering, etc.).	x
	6.	Sets a good example to students and community by obeying all rules and regulations while driving own or traffic safety education vehicle.	x
	7.	Continually practices the I.P.D.E. (identify, predict, decide, execute) principles as taught to his students.	x
	8.	Demonstrates a driving record which includes no more than three (3) convictions for moving violations or more than one (1) chargable collision in any two year period.	x
	9.	Maintains own vehicle(s) in good operating condition.	x
	10.	Uses the restraint system while driving or riding in his own or other vehicles.	x
III.	Cur	riculum Development Competencies	
	1.	Applies the State of Washington legislative requirements when developing or revising curriculum.	x
	2.	Determines and provides for the program needs in regards to equipment, facilities and resources prior to implementation of developed curriculum or proposed changes in established curriculum.	x
	3.	Discusses proposed changes in curriculum with the school administration prior to implementation.	×
		•	

Automatically 4. Uses the local curriculum guide as the source for program implementation. 5. Is aware of and takes into consideration factors unique to his district that may limit and/or facilitate the experiences that will be provided for his traffic safety education students (e. g., driving environments, resource people, etc.). 6. Identifies knowledges, skills, and attitudes that must be acquired in the course by reviewing state and local curriculum guides and requirements, consulting traffic safety education publications and research studies and consulting traffic safety education specialists. 7. Provides for individualization based upon student ability. 8. Selects content for each unit of instruction consistent with the unit objectives. 9. Develops unit objectives in performance terms that are based upon the goals, concepts, performances, knowledges, skills and attitudes listed in the State of Washington Traffic Fafety Fducation Curriculum Guide, subsequent revisions, and any other leading documents in traffic safety education. 10. Develops specific performance objectives for each unit of instruction and uses them as a means of determining student progress. 11. Provides for the integration of classroom concepts and laboratory application. 12. Makes available pertinint resource material to which students can refer and from which objectives can be achieved. 13. Identifies activities and projects which would be consistent with the course objectives. 14. Employs individualized learning techniques which contain learning activities derived from performance objectives (e.g., learning activity packages, instructional modules, etc.). 15. Selects texts which could be used in the course as resources to  $\mathbf{x}$ student learning. 16. Reviews new texts, films, and other aids to determine whether they would improve instruction, and make appropriate modifications to the curriculum. 17. Incorporates results of research on new techniques and equipment into the curriculum in an effort to improve instruction.  $\chi$ 

		Automatically accepted	Questionable- accepted	Questionable- not accepted	Automatically not accepted
18.	Makes available to students a variety of audio/visual aids that will contribute to achieving course objectives.	ac Ac	00 0	P P Ou	Au
19.	Develops and uses a criteria for revising the curriculum to improve the quality and enhance student learning.	x			
20.	Designs and uses evaluation instruments to measure performance objectives for classroom and laboratory.	×			
21.	Employs program evaluation techniques to identify deficiencies in the traffic safety education program and to collect data rel vant to revisions that will remove deficiencies.	e- x			
22.	Distinguishes between "common approaches" to curriculum development in traffic safety education and a "systems approach" by citing advantages and disadvantages of each.	•		x	
23.	Uses a systems approach in developing classroom and laboratory content.	x			
24.	Explains the rationale for traffic safety education as an integral part of a) the formal education system, and b) the highway system management and applies the rationale to curriculum development.				
25.	Identifies and describes the general goals and objectives of traffic safety education and uses them as a guide to curriculum development.	x			
26.	Describes the purpose, advantages and disadvantages of mass transportation in our society.			x	
27.	Defines the goal, purpose and major components of the highway transportation system in the United States.			x	
28.	Explains the social and economic effects of highways on our society.			x	
29.	Identifies and describes the forces or agencies that help to manage the highway transportation system (e.g., enforcement, traffic engineering, state department, department of motor vehicles, etc.).	×			
30.	Explains the federal and state role in highway safety.			x	
31.	Discusses the effects of highway safety acts and programs on th highway transportation system.	e		x	
32.	Describes the federal and state role in highway construction.			×	

			Automaticall accepted	Questionable accepted	Questionable not accepted	Automaticall not accepted
	33.	Identifies the procedures and methods used by governments to finance and manage the highway transportation system.	)		x	
,	34.	Describes the concept of driving task as it relates to the beginning drivers (e.g., mental, social and physical requirements.	x			
•	35.	Describes the interrelatedness of the driver, vehicle and environment as related to the driving task.	x			
	36.	Involves community agencies and resource persons in the destand implementation of his traffic safety education program.	ign X			
	37.	Interprets the traffic laws of the State of Washington as related to motor vehicle operation (e.g., speed, right-of-way passing, etc.).				
	38.	Interprets the laws of the State of Washington regarding ownership, licensing, financial responsibility, driving while under the influence of alcohol and drugs, reckless driving, etc.	le X			
	39.	Provides opportunities for career guidance to students as i relates to the field of traffic safety.	t		×	
	40.	Explains how local traffic safety education program is sequenced (e.g., how students move through the program).	en- X			
īv.	Ins	tructional Competencies				
	A.	Common to Both Classroom and Laboratory				
		<ol> <li>Establishes a good rapport with students (e.g., takes a personal interest in them).</li> </ol>	x			
		<ol> <li>Projects positive personality traits to students during laboratory and classroom instruction (e.g., respect and empathy for learners, good teacher mannerisms etc.).</li> </ol>				
		3. Recognizes each student as a person of worth and dignit	y. <b>x</b>			
		<ol> <li>Describes how attitudes and habits are formed by individuals.</li> </ol>	- x			
		5. Describes how behavior can be modified or directed.	x			
		<ol> <li>Identifies physical and mental problems that various st dents may posses.</li> </ol>	u X			
		•				

		Automatically accepted	Questionable- accepted	Questionable- not accepted	Automatically not accepted
7.		x	0 -		
8.	Develops and uses lesson plans for each lesson taught in the classroom and each laboratory phase.	ne X			
9.	Uses techniques for developing identification, prediction, decision making and execution abilities in students (e.g., uses slides, verbal comments etc.).	x			
10.	Maintains a record of vehicle and/or equipment malfunction so that proper repairs can be made.	x			
11.	Develops and uses verbal and non-verbal communication techniques which facilitate learning.	- x			
12.	Identifies the competency level of each student upon entry into the program.	x			
13.	Demonstrates a variety of teaching methods and techniques t facilitate student learning.	to <b>X</b>			
14.	Allows the student to progress at his/her own rate.	x			
15.	Maintains student progress records and utilizes the data to facilitate instruction in meeting student needs.	, <b>x</b>			
16.	Uses instructional aids to facilitate instruction.	x			
17.	Exercises necessary discipline measures for control of students.	×			
18.	Employs sound techniques for orienting students for their laboratory experiences.	x			
19.	Applies the results of research of the driving task to the selection and organization of the content for classroom and laboratory instruction.	i x			
20.	Applies the results of research in the selection and use of teaching methods, techniques and instructional materials.	f X			
21.	Designs and uses learning activities which assist the stude in achieving the stated performance objective.	ent X			
22.	Identifies knowledges, skills and attitudes that must be evaluated.	x			
23.	Uses a selection criteria for identification of instruments and methods for evaluating classroom and laboratory performance.		x		

	24. 25. 26.	Constructs and uses evaluation instruments for assessing student performance.  Employs a grading system based upon student performance objectives.  Demonstrates techniques for teaching eligible physically and mentally handicapped students.	X X Beccepted	Questionable- accepted	Questionable- not accepted	Autometically	not accepted
в.	Clas	ssroom					
	1.	Integrates classroom experiences with laboratory application.  Constructs or has constructed audio/visual materials that can be used in a performance-based individualized program.	x x				
	3.	Performs routine maintenance and care for all classroom equipment and materials.	x				
	4.	Supervises the use of individualized instruction and other auxiliary equipment and materials.	x				
	5.	Employs the values clarification process as it relates to traffic safety.	x				
c.	Labo	pratory - Common to All					
	1.	Identifies the purpose, philosophy and rationale for traffic simulation, multiple-car range and on-street instruction.	×				
	2.	Complies with Washington State Superintendent of Public Instruction requirements pertaining to traffic simulation, multiplecar range and on-street instruction.	- x				
	3.	Identifies the benefits of traffic simulation, multiple-car range and on-street instruction and utilizes them to improve student performance.	×				
	4.	Identifies the limitations of traffic simulation, multiple- car range and on-street instruction and compensates for them in an effective manner.	x				
	5.	Integrates traffic simulation and/or multiple-car range and/or on-street with classroom instruction.	x				
	6.	Applies the theories of learning applicable to traffic simula-					

Automatically Questionable-Questionable. not accepted tion, multiple-car range and on-street instruction in planning and implementing instruction. 7. Conducts lessons in developmental sequence from simple to complex based on individual students needs and abilities. 8. Defines and contrasts procedure and process teaching as applied to each laboratory phase of instruction (e.g., procedure = teacher dominates the learning environment, process = student permitted to make decisions). 9. Performs routine maintenance and care for all equipment and vehicles used in the laboratory program (e.g., simulation, multiple-car range and on-street vehicles). х 10. Provides adequate security measures for all equipment and vehicles used in the laboratory program (e.g., simulation, х multiple-car range, on-street). 11. Follows procedures for providing adequate insurance coverage for equipment and vehicles as determined by State of Washington regulations. 12. Guides student practice for maximum achievement by: a. recognition of common errors. b. providing feedback so students can recognize errors. c. providing practice until performance is acceptable.d. allowing for concentrated practice when skill is introduced. e. providing cues and reminders. f. conducting drills with a variety of teaching techniques. g. providing effective demonstrations. h. giving good directions. 1. providing positive reinforcement. X 13. Structures lessons according to the major driving task clusters as found in the Washington State Curriculum Guide (e.g., basic control, traffic flow, critical systems). 14. Describes the teacher and learner responsibilities at each driving task level for each phase of the laboratory instruction (e.g., basic control, traffic flow, critical systems). 15. Demonstrates each skill, procedure or maneuver required of the beginning driver (e.g., simulation, multiple-car range, onstreet as applicable or as time permits). 16. Demonstrates and teaches emergency driving procedures and maneuvers (e.g., run-off-road, evasive steering, controlled

x

braking, etc.).

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- 17. Schedules students into traffic simulation, multiple-car range and on-street labs according to their needs and abilities.
- 18. Identifies those behaviors that should be evaluated in traffic simulation, multiple-car range and on-street instruction and sees that they are evaluated before allowing students to progress to the next lesson.
- 19. Selects, develops and employs evaluation techniques for each phase of the laboratory instruction (e.g., observation, checklists, electro-mechanical equipment, videotape, etc.).
- 20. Develops and uses communication techniques designed to meet the needs of the situation and type of laboratory instruction.
- 21. Concentrates in each laboratory phase on those objectives which can best be taught.
- 22. Adjusts objectives and teaching techniques in the car when traffic simulation and/or multiple-car driving range are available and used.

### D. Unique to Traffic Simulation

- Uses the fixed-base driving simulator method of instruction to develop the human functions (e.g., identification, prediction, decision making and execution skills).
- Operates all control components that are essential in teaching in the fixed-base driving simulator.
- Identifies the procedures for and operates the driving simulator system in automatic and manual scoring modes.
- 4. Identifies the procedures for and changes between automatic and manual scoring modes as necessary while teaching in the fixedbase driving simulator.
- Uses procedures for ending the filmed presentation while in automatic and/or manual scoring mode.
- 6. Introduces the traffic simulator lesson by using enrichment instructional techniques such as:
  - a. Discussing situations that will be encountered in the film.
  - b. conducting drills to assist performance.
  - c. asking questions about film related topics.
  - d. calling on students to interpret situations.
  - e. using role playing situations, etc.

7.	Uses enrichment teaching aids to prepare the student for the film segment of the driving simulation lesson by selectively using:  a. slides b. filmstrips c. charts d. magnetic-board e. handouts f. chalkboard, etc.	Automatically Accepted	Questionable- accepted	Questionable- not accepted	Automatically not accepted
8.	Uses instructional methods during the teaching of the film by:				
	<ul> <li>a. stopping the film.</li> <li>b. reversing the film.</li> <li>c. interjecting ideas and comments with and without the microphone.</li> <li>d. running the film with no sound.</li> <li>e. still framing.</li> </ul>				
	f. using slow motion/time lapse, etc.	x			
9.	Assesses the performance of students individually and as a grouduring the film and while practicing in a drill situation.	x x			
10.	Uses follow-up techniques to reinforce learning attained in the film segment (e.g., re-run the film, drills, handouts, etc.).	e X			
11.	Actively teaches in the driving simulator and does not rely completely upon the film to present concepts, procedures and skills.	x			
12.	Positions self so as to provide effective and efficient observation and instruction and avoid unnecessary distractions.	x			
13.	Uses instructional aids during the film presentation by:				
	<ul><li>a. using the flashlight pointer.</li><li>b. using the microphone.</li></ul>				
	c. using other sounding devices, etc.	x			
14.	Destinguishes between the parts of the driving task that will transfer positively and negatively to on-street driving and takes advantage or compensates for them while teaching (e.g., braking, steering, visual skills).	x			
15.	Demonstrates a given procedure using the simulators and electronic feedback equipment, showing the responses necessary to correctly activate the equipment in response to programmed and, or coded media (e.g., showing proper steering, braking, signalling, etc.).	/ - <b>x</b>			
16.	Interprets and uses the printed score sheet during the lessons taught in the fixed-base driving simulator.			x	
17.	Justifies traffic simulation as a way of improving the quality and reducing costs of the traffic safety program.	x			

	•	Automatically accepted	Questionable- accepted	Questionable- not accepted	Automatically not accepted
18.	Identifies and discusses the factors to consider when planning for or designing a driving simulator facility.	<b>х</b>		g n	
19.	Identifies and explains those component parts of the simulator system that are necessary for a quality program.	x			
20.	Describes and discusses the advantages and limitations of various types of simulator installations and optional equipment and states how each achieves the teaching of concepts.		x.		
21.	Describes the principles involved in the transfer of learning from a simulated to a real task.	x			
E. Uni	que to Multiple-Car Range				
1.	Demonstrates the proper placement and use of equipment essentiation the effective teaching of each multiple-car range lesson (e.g., cones, flags, cars, etc.).	al X			
2.	Prepares or has prepared each vehicle that will be used for the multiple-car range instruction prior to the arrival of the learners (e.g., communication system, numbers, etc.).	e X			
3.	Develops and utilizes effective communication techniques which facilitate learning.	x			
4.	Maintains a good position at all times to:				
	<ul> <li>a. see cars by facing them.</li> <li>b. be where students can hear and see him.</li> <li>c. provide for the safety of all concerned.</li> <li>d. know what all vehicles are doing.</li> </ul>	×			
5.	Anticipates "potential conflict areas", and moves to a position near them before they develop.	n x			
6.	Maintains complete control of the range at all times.	x			
7:	Describes the principles involved in the transfer of learning from a simulated to a real task.				
8.	Defines the multiple-car range method of instruction.	x			
9.	Identifies and discusses the factors to consider when planning for or designing a multiple-car driving range facility.			x	
10.	Distinguishes between the three (3) major types of multiple-cardriving ranges noting both advantages and disadvantages of each (e.g., basic control, traffic mix, advanced maneuvers).	r n	x		
inst	*Not accepted because of a typing error that resulted in fficient responses.				

		Automatically accepted	Questionable- accepted	Questionable- not accepted	Autometically not accepted
11	<ul> <li>Describes the distinguishing features of a multiple-car driving range facility.</li> </ul>		<b>.</b>	J	
12	<ul> <li>Justifies multiple-car driving range instruction as a way of improving the quality and reducing the cost of the traffic safety education program.</li> </ul>	x			
13	<ul> <li>Provides for traffic mix situations thus enabling students to identify, predict, decide and execute in near real situations.</li> </ul>	x			
?. <u>"</u>	nique to On-Street				
1	<ul> <li>Describes the inherent dangers involved in on-street instruc- tion and takes necessary measures to minimize and avoid these dangers.</li> </ul>	x			
2	Develops and implements guidelines for determining the amount and distribution of on-street practice for skills taught.	x			
3	. Uses the limited amount of time for on-street instruction for the maximum benefit of the student.	x			
4	<ul> <li>Demonstrates and teaches the commentary driving technique (e.g., short narration of what one sees in the driving scene.</li> </ul>	x			
5	<ul> <li>Demonstrates and teaches route and destination driving (e.g., going from one point to another with minimal aid from the instructor).</li> </ul>	×			
6	• Uses control instruments when necessary to maintain safety and facilitate instruction (e.g., dual brake, steering wheel, etc.)	). <sub>x</sub>			
7	<ul> <li>Uses techniques for involving the back seat observers during the instructional lesson (e.g., checklists, uses questions, etc.).</li> </ul>	x			
8	. Groups students according to ability and needs.		x		
9	<ul> <li>Uses methods which ease anxiety, fear, etc. on the part of students when such a need arises.</li> </ul>	x			
10	. Maintains at all times a position within the vehicle for observation, instruction and control.	- x			
11	. Selects routes that will enable the student to best achieve objectives and prepare for future driving.	x			
12	<ul> <li>Provides instruction in emergency driving techniques according 'to student ability and safety.</li> </ul>	x			

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	13.	Maintains awareness of the traffic scene during on-street driving experiences and anticipates moves of the student driver to prevent occurrence of dangerous acts.	x accepted
v.	Adm	inistrative Competencies	
	1.	Determines the number of instructors needed for the implementation of the local traffic safety education curriculum.	x
	2.	Uses record forms for students, equipment, vehicles and supplies as required by the local district and State Superintendent of Public Instruction.	x
	3.	Has a program organized to meet all state standards as found in the "Administrative Manual for Traffic Safety Education".	x
	4.	Selects those training devices that are most cost effective and beneficial to student learning with respect to established program objectives.	x
	5.	Schedules students into classroom and laboratory experiences according to their ability and level of competence.	x
	6.	Maintains adequate insurance coverage for vehicles, students, instructors and equipment as required by state law.	x
	7.	Insures that the traffic safety education program is available to all students including those who may be handicapped or out of school.	x
	8.	Provides for the routine maintenance of all equipment, materials, and media that is used in the traffic safety education program.	x
	9.	Constructs and uses appropriate forms and letters as required by state and local regulations.	x
	10.	Procures the types of automobiles needed for the program that will ensure quality but at the least expense to the school.	x
	11.	Equips or has equipped each vehicle to meet state requirements and to insure safety for students and teachers.	x
:	12.	Reports all accidents or acts of vandalism to proper authorities immediately after the occurance.	x
	13.	Predicts common vehicle abuses and takes measures to insure that they are non-existant in the program.	x
•	14.	Completes all necessary forms for state reimbursement.	x

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15. Completes all necessary forms for certification of student 16. Annually reviews budget and program needs with the administrator to insure adequate financial coverage. 17. Assists in the policy development for the organization, supervision, planning and management of a district wide K-12 comprehensive traffic safety education program. 18. Maintians a student record system adequate for reimbursement and other administrative purposes. 19. Updates and replaces equipment, texts, resources and materials to keep abreast with latest trends in program implementation. X 20. Determines the per pupil costs considering both direct and indirect costs and maintains the program within a pre-determined  $_{\mathbf{X}}$ budget. 21. Maintains the traffic safety education vehicles as prescribed by the agreement form as supplied by the Superintendent of Public Instruction. 22. Demonstrates a knowledge of state and federal regulations regarding program organization and administration. 23. Requires that all traffic safety education instructors meet state certification requirements. 24. Provides inservice workshops for all traffic safety education teachers in the district to insure their exposure to the latest teaching methods and techniques. 25. Develops and uses a written enrollment criteria which states how students are accepted into a traffic safety course and when they are accepted. 26. Demonstrates acceptable knowledge of program approval, and reimbursement procedures as explained in the Traffic Safety Education Administrative Manual. 27. Demonstrates ability to schedule classes and equipment accord-  $\mathbf{x}$ ing to needs. 28. Demonstrates leadership for other instructors in the traffic safety education program. x

Automatically accepted Questionable-accepted questionable. VI. School/Community Relations Competencies Demonstrates ability to convey the nature and purpose of his traffic safety education program to persons outside the school community (e.g., parents, police, city council, etc.). 2. Demonstrates ability to convey the nature and purpose of his traffic safety education program to members of the school community (e.g., fellow teachers, administration, etc.). 3. Establishes and maintains positive relationships with automobile dealers and other private agents who can be supportive of the traffic safety education program. 4. Promotes a K-12 approach to traffic safety education to persons both inside and outside the school community. 5. Acts as a resource person to the school and community in regards to traffic safety (e.g., serves on committees, speaks to groups, etc.). 6. Encourages parental involvement in reinforcement of driving skills taught in the traffic safety education program. 7. Demonstrates the ability to acquaint parents with the traffic safety education program and encourages their support and x participation. 8. Encourages self and student involvement in community traffic safety activities designed to improve the quality of the traffic safety program. X 9. Demonstrates ability to use the local media to promote traffic safety education in the community. Uses practice driving vehicles only for instructional purposes or other uses as authorized by the Superintendent of Public x Instruction. VII. Maintaining Professional Competence 1. Improves professional competence through attendance at workshops, seminars, in-service days, and other courses and meetx ings related to traffic safety education. 2. Uses instructor and program evaluation data to formulate a plan for improvement of professional competence. 3. Demonstrates good physical appearance and practices personal hygine habits commensurate with that of other teachers according to established district policy.

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- 4. Is active in local, state and national professional organizations that promote traffic and safety education.
  - 5. Follows the professional code of ethics as prescribed by local school district and state associations.
  - 6. Reads traffic safety education professional publications and contributes when appropriate.
  - Demonstrates self-initiative for developing self and peers to increasing levels of competence and confidence in traffic safety education.
  - 8. Seeks opportunities to receive more formal preparation leading toward advanced degrees.  $\mathbf{x}$

**BIBLIOGRAPHY** 

### BIBLIOGRAPHY

# Primary Sources

- Aaron, James E. and Marland K. Strasser. Driving Task Instruction. New York: The MacMillan Publishing Co. Inc., 1974.
- Aaron, James E. and Marland K. Strasser. <u>Driver and Traffic Safety Education</u>, Content, <u>Methods and Organization</u>. New York: The MacMillan Co. Inc., 1966.
- American Automobile Association. <u>Teaching Driver and Book Co.</u>, 1966. <u>Teaching Driver and New York: McGraw-Hill</u>
- American Driver and Traffic Safety Education. "Policies and Guidelines for Driver and Traffic Safety Education," Washington D.C.: 1974.
- Anderson, William G. <u>In-Car Instruction: Methods and Content</u>. <u>Menlo-Park, California: Addison-Wesley Publishing Co., 1968.</u>
- Andrews, Theodore E. "Certification Issues in Competency-Based Teacher Education," <u>Educational Technology</u>, Nov. 1972.
- Brondy, Harry S. "A Critique of Performance-Based Teacher Education," American Association of Colleges for Teacher Education, Pamphlet Series #4.
- Dennis, Maurice and Thomas Seals. "Florida's Changing Traffic Safety Education Program," Journal of Traffic Safety Education, October 1973.
- Dunn, Leroy W. "The Highway Safety Program Manual for Driver Education." <u>National Safety Congress</u>
  <u>Transactions</u>, National Safety Council, 1969.

- Elam, Stanley. "Performance-Based Teacher Education What Is The State of the Art?" Washington D.C.: American Association of Colleges for Teacher Education, Dec. 1971.
- Frazier, Damon, and Robert Clasen. "Plans for the Assessment and Evaluation of High School Driver Education in Wisconsin," Aug. 1971.
- Gertz, Howard, Larry Kennedy, Walter Pierce, Cliff Edwards, Pat Chesebro. "From Traditional to Competency-Based Teacher Education," Phi Delta Kappan, January 1973.
- Gregg, Walter H. "The Preparation of Teachers for Effective Safety Education," National Safety Congress Transactions, National Safety Council, Vol. 24, 1959.
- Gruber, Frank. "A Determination of Fundamental Concepts to be Used in a Parental Involvement Program in Driver Education," unpublished doctoral dissertation, Michigan State University, 1972.
- Gubser, M.M. "Accountability As a Smoke Screen for Political Indoctrination in Arizona," Phi Delta Kappan, Sept. 1973.
- Hartman, Charles. "Driver Education in the 70's,"

  California Journal of Traffic Safety Education,
  April 1972.
- Hartman, Charles. "Teacher Preparation Programs in Driver Education in Colleges and Universities in the United States," unpublished doctoral dissertation, Michigan State University, 1961.
- Highway Users Federation for Safety and Mobility. The Driving Simulator Method. Washington D.C.:
  Highway Users Federation for Safety and Mobility, 1974.
- House, Earnest R., Wendell Rivers, Daniel Stufflebearn.
  "An Assessment of Michigan Accountability System,"
  Phi Delta Kappan, June 1974.

- Houston, Robert W. "Strategies and Resources for Developing a Competency-Based Teacher Education Program," New York State Education Department Division of Teacher Education and Certification and Multi-State Consortium on Performance-Based Teacher Education, Oct. 1972.
- Human Resources Research Organization. "Instructions and Rating Form for the Evaluation of Functions for Driver Education Teachers," U.S. Department of Transportation, National Highway Traffic Safety Administration, Alexandria, Virginia: HumRRO.
- Kaywood, Richard. "The Worth of Driver Education," <u>Journal</u> of Traffic Safety Education. Editorial Comment, Oct. 1972.
- Kenel, Francis C. "Broader Horizons for Traffic Safety Education Teacher Preparation," National Safety Congress Transactions, National Safety Council, Vol. 24, 1959.
- Key, Norman. "Project on Teacher Preparation and Certification," National Safety Congress Transactions, National Safety Congress, 1965.
- King, Alfred S. "North Carolina's Competency-Based Driver Education Certification Program," <u>Journal of</u> <u>Traffic Safety Education</u>, Oct. 1973.
- Lessinger, Leon. "Holding the Accountability Movement Accountable," Editor's Page, Phi Delta Kappan, June 1974.
- Lessinger, Leon. "Engineering Accountability Results in Public Education," Phi Delta Kappan, June 1974.
- Lyman, William Joseph. "A Study of the Administrative Competencies Needed by the Community College Academic Dean and a Model of their Translation into Behavioral Statements Related to Administrative Training Experiences," unpublished doctoral dissertation, Michigan State University, 1970.
- Moon, Ralph A. "An Analysis of Teacher Tasks to Enable Identification of the Potential Use of Auxilary Personnel in the Instruction Process," unpublished doctoral dissertation, Michigan State University, 1969.

- The Multiple-Car Method. Washington D.C.: Highway
  Users Federation for Safety and Mobility, 1972.
- National Conference on High School Driver Education.

  (Michigan State College 1953), Policies and
  Practices in Driver Education, Washington D.C.:
  National Education Association, 1954.
- National Conference on High School Driver Education.
  (Purdue University 1958), Policies and Practices
  in Driver Education, Washington D.C.: National
  Commission on Safety Education, 1954.
- National Conference on High School Driver Education.
  (Washington D.C. 1963), Policies and Practices
  in Driver Education, Washington D.C.: National
  Education Association, 1964.
- National Conference on Teacher Preparation and Certification in Driver and Traffic Safety Education.

  Policies and Guidelines for Teacher Preparation and Certification in Driver and Traffic Safety Education, National Commission on Safety Education, 1965.
- National Conference on Safety Education. (Central Missouri State University 1974), Policies and Guidelines for Preparation and Certification of School Safety Personnel, American Driver and Traffic Safety Education Association, 1974.
- Popham, W., James and Eva L. Baker. <u>Establishing</u>
  <u>Instructional Goals</u>. Englewood Cliffs, New
  <u>Jersey</u>: <u>Prentice-Hall</u>, Inc. 1970.
- Quane, Laurance. "Driver Education Teacher Competencies," unpublished material, Illinois State University, 1974.
- Quick, Thomas. "Teachers Accountable? Positive and Negative," National Association of Secondary School Principals Bulletin, Dec. 1973.
- Rosner, Benjamin, Patricia M. Kay. "Will the Promise of C/P BTE Be Fulfilled?" Phi Delta Kappan, Jan. 1974.
- Roth, Robert. "Certifying Teachers An Overhaul is Under-Way," The Clearing House, Jan. 1973.

- Rothwell, Angus. "The High School Teacher," Policies and Guidelines for Teacher Preparation and Certification in Driver and Traffic Safety Education, National Commission on Safety Education, 1965.
- Roush, Robert, Dale E. Bratten, Caroline Grillin.

  "Accountability in Education: A Priority for the 70's," Education, Sept/Oct 1971, Vol. 92, No. 1.
- Seals, Thomas A. "Competency-Based Preparation and Certification for Driver Education Teachers,"

  National Safety Congress Transactions, National Safety Council, Vol. 23, 1973.
- Seals, Thomas A. "Accountability in Driver Education," Journal of Traffic Safety Education, July 1972.
- Seaton, Don Cash, Herbert J. Stack, Bernard I. Loft.

  Administration and Supervision of Safety Education.

  New York: The MacMillan Company, Inc. 1969.
- Sheehe, Gordon. "The Trouble with Driver Education,"

  National Safety Congress Transactions, National
  Safety Council, 1969.
- Stack, Herbert J. <u>History of Driver Education in the United States</u>. National Commission on Safety Education, 1966.
- Strasser, Marland K., James E. Aaron, Ralph C. Bohn, and John R. Eales. <u>Fundamentals of Safety Education</u>. New York: The MacMillan Publishing Co. Inc., 1973.
- Sybouts, Ward. "Performance-Based Teacher Education:
  Does It Make a Difference?" Phi Delta Kappan,
  Jan. 1973.
- Trabue, Marion R. "Desirable Standards in Driver Education and Training," National Safety Congress Transactions, National Safety Council, Vol. 33, 1948.
- Trabue, Marion R. "Safety Education Needs of Pre-Service Teachers," National Safety Congress Transactions, National Safety Council, Vol. 33, 1948.
- Tucker, Willis. "Accountability: Who Owes What To Whom?" The Education Digest, April 1972.

- U.S. Dept. of Transportation. <u>Highway Safety Manual</u>, Vol. 4, Driver Education.
- Utah State Board of Education. "Preparation Process:
  Driver Education Competencies," attachment to
  Driver Education Competencies, July 1973.
- Wallace, Gerald R. "A Quality Program for Driver Education," <u>California Journal of Traffic Safety Education</u>, June 1969.
- Wallace, Gerald R. "Problems in Teacher Preparation,"

  National Safety Congress Transactions, National
  Safety Council, 1967.
- Washington State Board of Education. Guidelines and Standards for the Development and Approval of Programs of Preparation Leading to the Certification of School Professional Personnel, July 1971.
- Washington State Superintendent of Public Instruction.

  Traffic Safety Education Administration Manual,
  Sept. 1974.
- Weaver, Jack K. "A Systematic Approach to Driver Education Accountability," <u>Journal of Traffic Safety</u> <u>Education</u>, April 1973.
- Wilson, Alfred P., William W. Curtis. "The State Mandate: Performance-Based Teacher Education," Phi Delta Kappan, Sept. 1973.

## General References

Bishop,	Richard W., Robert M. Calvin, and Kenard McPherson. Driving: A Task-Analysis Approach. Chicago: Rand McNally and Company, 1975.
	Course Outlines, Central Missouri State University, Driver and Traffic Safety Education.
*	Course Outlines, Florida State University, Driver and Traffic Safety Education.
	Course Outlines, Illinois State University, Driver and Traffic Safety Education.
	Course Outlines, University of Maryland, Traffic Safety Education.

- Gustafson, Kent. Personal Interview, March 6, 1975.
- Halsey, Maxwell, Richard Kaywood, and Richard A. Meyerhoff. Let's Drive Right, 5th Edition, Glenview, Illinois: Scott, Foresman, and Comp. 1972.
- Hartnett, Rodney T. Accountability in Higher Education. New York: College Entrance Examination Board, 1971.
- Mager, Robert F. <u>Preparing Instructional Objectives</u>. Palo Alto, California: Fearon Publishers, 1962.
- Mager, Robert F. <u>Developing Attitude Toward Learning</u>.
  Palo Alto, California: Fearon Publishers, 1968.
- Mager, Robert F., and Kenneth M. Beach. <u>Developing</u>
  Vocational Instruction. Belmont, California:
  Fearon Publishers, 1967.
- Popham, James W. <u>Evaluating Instruction</u>. <u>Englewood</u> Cliffs, New Jersey: <u>Prentice Hall</u>, 1973.
- Popham, James W. and Eva L. Baker. <u>Planning an Instructional Sequence</u>. Englewood Cliffs, New Jersey: Prentice Hall Inc., 1970.
- The National Safety Council . 1975-76 College and University Safety Courses, May 1975.
- Thygerson, Alton L. <u>Safety Principles, Instruction</u>, and Readings. Englewood Cliffs, New Jersey: Prentice Hall Inc., 1972.