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Evaluation of Driver Education*

By ELMER B. SIEBRECHT

Driver education is a growing segment of the high school programs. In 1953-54 some 8,000 high schools in the United States offered to some 800,000 students a full semester's instruction in learning to drive a car.

Educators and others are concerned with the effectiveness of such instruction. Periodic summaries (2) show trainees of such courses to have about 50 per cent fewer accidents, violations, arrests and warnings than non-trainees.

Analysis of pertinent data (3,6,7) reveal no statistically significant differences in accident and violation involvements of trained and untrained drivers, when the most obvious variables are controlled, for women and for men with three or more violations. Tests before and after instruction (1,5) show favorable shifts in scores on standardized attitude scales on the average and for most of the students enrolled in the course. Ratings by 155 safety supervisors and teacher educators (4) indicate that driver education is one of the safety areas with some unfulfilled need for instructional materials.

Currently there is under way a comprehensive evaluation program of driver education in the Iowa high schools at Iowa State College. The study includes consideration of the following phases: driving records of trainees, teaching effectiveness of instructors and adequacy of courses.

The present report concerns the adequacy of courses, using as the criterion the considered judgments of drivers who successfully completed driver education courses and have held a driver's license.

METHOD and PROCEDURE

From the Department of Public Safety were obtained the names and addresses of some 5,000 students who completed driver education courses in 1947-50. Each was canvassed with respect to 1) course topics and their treatment in instruction, 2) topical emphasis, 3) teaching aids used, 4) course weaknesses, and 5) recommended course improvements.

The data were placed on IBM cards and analyzed with respect to the above-mentioned categories and to sex differences. Chi-square tests of significance were computed for the items of each category.

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The hypothesis set up was the responses tended to be neither high nor low, that is, depart significantly from expectation. In this way it was thought that systematic tendencies of marking might be controlled to some extent.

RESULTS

Complete data were obtained from 1107 trainees. Of these, 408 were men and 699 were women. Practically all had a minimum of three years' driving experience and represented courses given in large and small school systems in rural and urban areas.

Topical Treatment. The respondents rated 23 topics and areas selected by experienced teachers as to their treatment in instruction. Thirteen were rated as having been fully taught, nine as briefly taught, and one as not taught at all. The ratings of the individual topics are given in Table 1, together with the per cent of respondents establishing each rating.

Table 1
Per Cent of Respondents Reporting Topical Treatment

Topic	How Taught		
	Never	Briefly	Fully
Traffic laws and regulations.....	—	—	80.00
Causes of highway accidents.....	—	63.3	—
Driver qualifications.....	—	—	56.9
Driver responsibility.....	—	—	57.6
Driver attitudes.....	—	53.2	—
Safety rules and practices.....	—	—	70.3
Pedestrian and bicycle safety.....	—	64.4	—
Nature and condition of highways.....	—	60.6	—
Mechanics of the automobile.....	—	67.1	—
Checking the car for safety.....	—	65.4	—
Starting the motor.....	—	—	77.7
Shifting gears and starting the car.....	—	—	89.9
Backing and reversing.....	—	—	81.5
Turning and signaling.....	—	—	90.0
Parallel and angle parking.....	—	—	62.6
Starting and parking upgrade.....	—	—	63.0
Open highway driving.....	—	—	49.5
City and town driving.....	—	—	73.5
Winter and night driving.....	—	56.2	—
Courtesy in driving.....	—	—	48.6
Driving on high-speed roads, turnpikes.....	47.1	—	—
Appreciation of role of patrolman.....	—	56.6	—
Observing traffic-defensive driving.....	—	58.4	—

Sex differences with respect to the rating of the topics were negligible. The single disagreement involved the topic, courtesy in driving, which the men rated as having been briefly taught whereas the women rated it fully taught.

Responses on all but the following three topics were significant by the criterion set up: driver attitudes, open highway driving, and driving on high-speed roads and turnpikes.

Analyses of responses indicate that topics related to *legal requirements for and elementary skills of driving* were receiving major attention in instruction and that topics *basic in developing understandings, appreciations and attitudes of safe driving* were being neglected.

The trainees were requested to indicate the change in emphasis that should be given the various topics in instruction, basing their recommendations on their driving experience since the completion of the course. Two clearly defined response tendencies were noted. Those topics which the trainees earlier had rated as having been fully taught should continue to be emphasized as formerly. However, those which they had rated as having been briefly taught should be given increased emphasis in future instruction. In no instance was a topic to be given less emphasis than previously.

Sex differences occurred for the following three topics: driver responsibility, open highway driving and courtesy in driving. These the men would give greater emphasis whereas the women would leave them unchanged.

Teaching Aids. One of the factors of effective teaching is probably the extent to which training aids are used. In driver education these range from posters to demonstrations.

The trainees indicated that teachers of driver education were using such aids to some extent. However, only three aids were reported by more than 50 per cent of the trainees. They were demonstrations of stopping distances, films and blackboard problems. Other frequently used aids included street observation problems, psychophysical tests, tire and car parts and traffic problems. Responses on teaching aids used were significant beyond the 1 per cent level according to the criterion set up.

Figure 1 shows the aids reported by both men and women. It should be noted that those most frequently used relate to manipulation skills in driver education.

Course Improvement. The final phase of this study concerned the improvement of driver education courses. Respondents were asked to list course weaknesses and recommend course improvements. More than a dozen weaknesses were cited but no one of them by more than one-third of the respondents.

Figure 2 shows weaknesses reported by men and women. Sex differences are evident, with a larger number of women listing such weaknesses as insufficient driving practice, too little attention to auto mechanics and insufficient practice in parking the car.

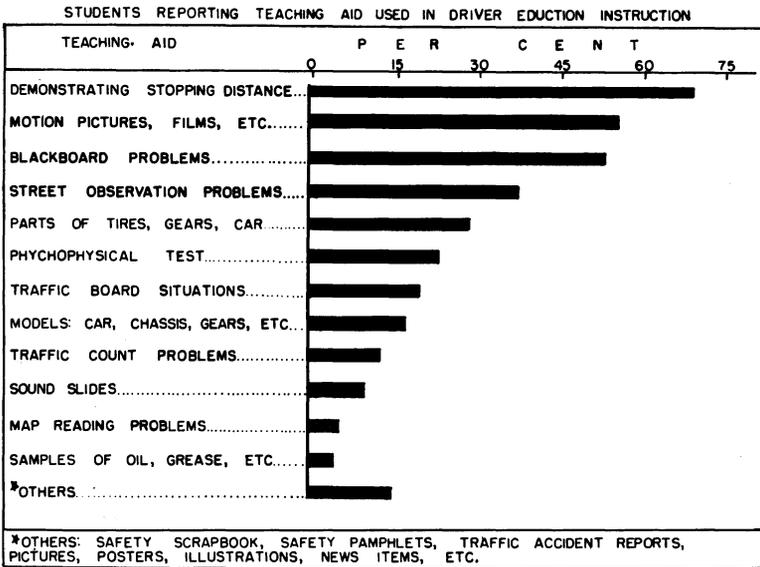


Figure 1.

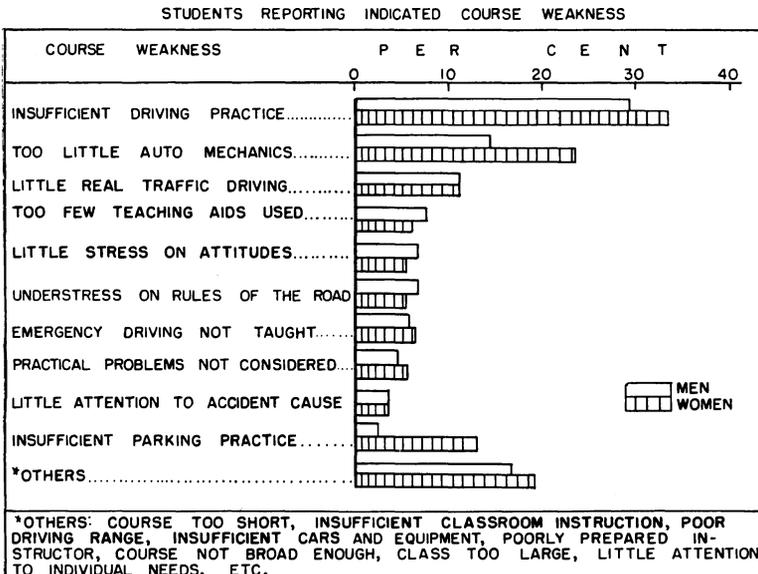


Figure 2.

Among weaknesses listed as "others" are those which relate to course organization and instruction. For example, some trainees believe that existing courses are too short, that insufficient time is given to classroom instruction, that teachers are inadequately prepared, and that little attention is given to individual student needs.

The suggested course improvements in general were aimed at correcting the weaknesses listed. The most frequently mentioned were the following: a) more practice in actual driving, b) more emphasis on auto mechanics, c) more stress on attitude development, d) more practice in emergency driving, e) an extended course to include more classroom instruction, f) better preparation of the teachers, and g) greater attention to individual student needs.

The recommendations tended to emphasize the need to raise the level of instruction from that of elementary skills and legal requirements to the development of understandings, appreciations and attitudes which are important in safe driving.

SUMMARY AND CONCLUSIONS

This study concerns the evaluation of driver education courses in Iowa high schools. In the light of the scope of this investigation, its limitations and the methods used, the following tentative conclusions are drawn:

1. Instruction in driver education is restricted largely to meeting legal requirements for elementary skills of driving motor vehicles. It appears therefore that current teaching in those courses is maintained at a level which is inadequate to prepare future drivers to meet requirements for a safer driving public.

2. Trainees of driver education courses would not deemphasize any course topics but would increase emphasis on topics which are basic in the development of understandings, appreciations and attitudes important in safe driving.

3. Instructors of driver education are not making maximum use of available teaching aids. Most of those currently used reflect the skill-development aspect of the course, again pointing up the fact that instruction is being maintained at an elementary level.

4. Course weaknesses include content deficiencies and under-emphases, inadequate course organization, and deficiencies in instructional procedures, according to the trainees.

5. Recommended course improvements suggest correction for the weaknesses listed and include among others the lengthening of the course to raise it above the level of elementary skills. The study suggests the need to provide better for individual needs under the guidance of more adequately prepared instructors.

In summary it may be concluded, therefore, that current driver education courses fail to provide the kind of education believed

by trainees to be necessary to meet the needs of modern traffic situations and to prepare one to drive more safely under various conditions of traffic. To do this necessitates an extension of the program and an increased emphasis on topics and areas related to safe driving behavior. In short, it means raising the level of instruction from the status quo.

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