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# **A Comparison of Attitude Scores Made on the Conover Attitude Inventory Before and After a Course in Driving**

By RAYMOND J. AGAN

## PROBLEM

An important goal of any course of study is to change or improve the students' attitudes toward that subject. An attempt has been made in this investigation to determine the effect of driver training programs on certain attitudes of individuals toward factors shown to be important in safe driving by a comparison of these attitudes as measured by an objective pre-test taken before the course and the same attitudes as measured by retesting after the course.

The general hypothesis of the study may be stated as follows: A course in driver education administered by a competent instructor, will initiate a shift of certain attitudes, improving the individual's outlook toward the specific factors which constitute attitudes toward safe driving in general.

It is assumed in this study that a true picture of an individual's attitudes toward these specific factors at a given time may be obtained by administering a pencil-and-paper scale of the type used and described by Conover (1947). The reliability of this scale is given as about  $+.90$ . A further analysis of this test is given by Soule and others in this volume (1950).

Another assumption is that safe driving is receiving a share of the instructional program of driver education courses.

## METHOD AND PROCEDURE

The investigation is limited to individuals enrolled in driver training classes at East Des Moines High School, Ames High School, Boone High School and Story City High School respectively. There were 144 cases studied, 114 girls and 30 boys.

The Conover Driving Attitude Inventory was used to obtain a measurement of the students' attitudes toward specific factors known to be important in safe driving. It consists of 150 items, only 65 of which are significant. Thirty-five are scored as positive whereby a high rating shows a desirable attitude and thirty are scored as negative in which a high score denotes an undesirable attitude. No interpretations were made of the test items by the examiner, and to insure uniformity in administering the inventory no directions were given concerning the meaning of items other than those in the practice exercise of the published scale.

The scale was administered to the subjects in each school at the beginning of a driver education course and again at the end. I.B.M. record sheets with five-place entries were used in the standard manner. No allowances were made for any previous training the individual may have had prior to enrolling for the course. It must be assumed that any such influences as were operative would produce more or less uniform effect.

The record sheets received were scored in several ways using different weighted values on the positive and negative items as a safeguard and as a special evaluation procedure on the scale used. Correlation of the derived scores showed in general that the method recommended by Conover was as satisfactory as any other methods proposed.

Comparisons were made in an effort to determine the amount of attitude improvement, if any, brought about by a course in driver training.

RESULTS

Correlations of from  $+ .16$  to  $+ .58$  were obtained between the total scores of all subjects made on the *before* and *after* tests. Correlations and comparisons were also made between the *before* and *after* score derived in each of the following ways as shown in Table 1.

**Table 1**  
Showing Shifts in Attitudes Before and After Training Boys and Girls

Subjects	Variable Before & After	Correlation between	Differences between means	C. R.	Larger Score
All	Total Scores	$+ .3602$	16.00	6.40	After
All	Positive Items	$+ .4169$	8.80	8.08	After
All	Negative Items	$+ .3200$	7.96	5.77	After
Girls	Total Scores	$+ .2664$	16.26	5.73	After
Girls	Positive Items	$+ .3169$	8.56	5.67	After
Girls	Negative Items	$+ .2230$	7.06	4.44	After
Boys	Total Scores	$+ .5561$	11.33	1.87	After
Boys	Positive Items	$+ .1657$	5.40	1.69	After
Boys	Negative Items	$+ .5880$	6.10	2.91	After
All	Sexes Compared	(Before) 0 (After) 0	2.62 7.54	0.46 1.40	Women Women

Thus in the first nine comparisons made there was a shift in every case toward the more "desirable" attitudes. The differences were mostly significant. It may be expected, however, that any decimation of the total score would reduce the reliability of the scale with a corresponding reduction of the critical ratio.

The improvement made by girls was slightly greater than by boys but the difference is not significant.

It was noted that there were wide individual differences in susceptibility to change — possibly a resistance to suggestibility. This fact poses the further problem of what influences operate to make one amenable to the acceptance of "desirable" attitudes.

#### GENERAL CONCLUSIONS

With consideration of the limits and extent of the sample used the following tentative conclusions may be set forth:

1. Significant shifts were obtained in all cases when comparisons before and after training were made.
2. A large percentage of subjects showed a shift in the "desirable" direction, altho a smaller percentage showed a loss. The significances of these individuals' variations were not established.
3. Only slight consistent but not significant sex-differences were noted altho the girls generally showed a higher "desirable-attitudes" score than boys.

#### Reference

Conover, Donald William. Development of Certain Techniques for the Measurement of Driver Attitudes. Unpublished M. S. Thesis, Iowa State College, Ames, Iowa, 1947.