The reading abilities of trade and industrial education students enrolled in the six trade and industrial education courses of automotive mechanics, building construction, drafting, electronics, machine shop, and welding in the six high schools of Granite School District were studied in relation to the rated readability of basic textbooks used in those courses. Additional relationships were studied between student reading abilities and intelligence, between course grades and intelligence, and between course grades and reading abilities.

The mean reading ability of the 388 trade and industrial education students included in the study assessed by administering the California Reading Test for grades nine through 14, was found to be 10.8 for the eleventh grade students, 11.1 for the twelfth grade students, and 11.0 for all students included in the study. These abilities ranged from grade six to grade 15.

Electronics students had the highest average reading ability measured at 12.4, while the average welding student was reading at grade 10.3. These were 4 percent or 87 eleventh grade students reading below their assigned grade level and 60 percent or 137 twelfth grade students reading below their assigned grade level. Little relationship was found between average student grades and their intelligence quotients, or between average student grades and reading level, while the correlation between Intelligence quotient and average reading ability was relatively high.

The rated readability of basic textbooks used by the students in the six courses was obtained through the application of both the Dale-Chall, and the SMOG formulas. A significant difference was found between the average reading ability of students and the readability of the basic textbook they were using. Reading abilities of average students in automotive mechanics, electronics, and welding courses were below the rated readability of the corresponding textbooks. Reading abilities of average students in building construction, drafting, and machine shop courses were above the rated readability of each of the corresponding textbooks.

The following conclusions were drawn from the data analyzed in the study:

1. The reading grade level of students in trade and industrial education courses is more important as a factor in determining a suitable level of readability for a basic textbook than the usual criterion of the assigned grade level of a course or a student's grade placement.
2. A basic textbook should have the capacity to interest the more able students as well as the slower readers.
3. More effort must be expended to help less able readers understand and relate the vocabulary of a technical type course.
4. Teachers should take into consideration the individual reading ability of students in planning their instruction rather than assume all students to be reading at grade level.

5. Of the factors used in assessing the rated readability of textbooks, vocabulary was more important than sentence length.

6. None of the basic textbooks analyzed exhibited a progression of reading difficulty from easy material at the beginning of the textbook to more difficult material towards the end of the textbook.

7. Although there was a wide variation in the mental abilities of students, generally students with high mental ability had a high reading ability.

8. The results of applying a one-way analysis of variance to student reading data from two of the courses, building construction and electronics, which were taught in all six high schools, indicated the reading grade level of students was not affected by the geographical area in which the student resided.

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