

SRA Verbal Test Scores from 1011 Women

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The results obtained from an administration of the SRA Verbal test to 1011 Dunedin women are described. There was no significant correlation between SRA Verbal test scores and age. Correlations with the Burt Reading Test and educational level were .598 and .433 respectively.

New Zealand psychologists and educationists are forced to rely on overseas tests in their day-to-day work and accept the norms from Australia, America, or Britain in good faith. Many psychologists express some concern about this situation and are left wondering whether the norms are applicable to New Zealand. The present paper presents some results obtained from use of Form A of the SRA Verbal Test (Thurstone & Thurstone, 1973) with a sample of 1011 Dunedin women whose children are being studied in the Dunedin Multidisciplinary Child Development Study.

The SRA Verbal is a 15 minute timed test claimed by the authors to be a measure of general ability, an individual's overall adaptability and flexibility in comprehending and following instructions, and in adjusting to alternating types of instructions. The test is not recommended by the authors as suitable for illiterates or persons unfamiliar with English. Three scores are yielded, an L or Linguistic score, a Q or Quantitative score, and a total score. The test was designed for educational and industrial use for persons from junior high school level through adulthood.

The test manual reports on the reliability of the scale by comparing equivalent forms and most of the correlations tend to be in excess of .90. The concurrent validity of the SRA Verbal test is supported by correlations with such tests as the Otis Test of Mental Ability ($N = 178$, $r = .80$), the High School Placement Test ($N = 178$, $r = .74$), and the Army General Classification Test ($N = 121$, $r = .82$). The manual presents conflicting results relating SRA Verbal Test scores to age; one study reported a negative correlation ($N = 198$, age range 18 to 48, $r = -.33$), while another found an older age group (42 and over) to gain higher mean scores. Educational norms for ages 12 to 17 and over are given in stanine form but the sample is not described. In general, insufficient information is given on which to base any New Zealand — U.S.A. comparisons.

Method

The sample consisted of 1011 women who were mothers of the 1037 three year old children studied in the Dunedin Multidisciplinary Child Development Study. The sample is fully described elsewhere by Silva (1976) and more briefly by Silva, Buckfield, Spears and Williams (1978). In summary, the sample was predominantly urban, European, and of slightly higher socio-economic levels than the country as a whole. All but 22.7% of the women were full time housewives. The age range was from 19 to 48, with a mean of 28.6 and standard deviation 10.22 (median age 28). Educational levels covered a wide range with 5.3% having had primary education only, 60.5% secondary schooling only, 21.2% polytechnic or trade training (including nursing), and 11.5% had been to a teachers' college or university.

Mothers obviously unfamiliar with the English language and mothers assessed as having reading problems were not given the test. A few mothers were not tested because they were upset or unwell at the time or because they elected not to take the test. Altogether, 26 of the 1037 (2.5%) were not tested for these reasons.

The SRA Verbal Form A was administered according to the instructions detailed in the manual. Careful attention was given to explaining the procedures and to accurate timing. In addition to the SRA test, the mothers were administered the Burt (Rearranged) Word Reading Test (Vernon, 1967). This test was selected because it provides a quick and efficient method of assessing ability to read single words. Additional information on age and education level was gathered during an interview.

Results and Discussion

For 1011 women, the mean L score was 24.5 (SD 9.46), the mean Q score was 15.3 (SD 6.69), and the total score mean was 39.8 (SD 14.76). The distribution was normal in form with a range of 3 to 78 for the total score. Table 1 shows the distribution of total scores.

Product-moment correlations were computed between the total scores on the SRA test and age of mother, the Burt Word Reading Test, and educational level (a 5 point scale). The correlation with age was .076, with reading age (Burt) .598, and with educational level .433. Thus, while the correlation with age was nowhere near significant, there was, not surprisingly, a moderately high correlation with Burt Reading score and educational level. These latter correlations confirm the impression gained from an examination of the SRA Verbal Test that it partly measures reading and mathematical ability, both of which reflect schooling.

Table 1
*Distribution of Total SRA Verbal Scores
for 1011 Women*

Score	N	Percentage
0-5	6	0.6
6-10	14	1.4
11-15	28	2.7
16-20	59	5.8
21-25	66	6.5
26-30	108	10.7
31-35	114	11.3
36-40	134	13.3
41-45	116	11.5
46-50	122	12.1
51-55	89	8.8
56-60	76	7.5
61-65	41	4.0
66-70	19	1.9
71-75	16	1.6
76-80	3	0.3
Totals	1011	100

Psychologists are familiar with the well known conditions to be applied to results obtained from group tests of any kind (e.g., Cronbach, 1960). The authors of the SRA Verbal Test add to these cautions the need to recognise that only one factor is assessed and that decisions about individuals should be made only after considering a range of other information such as special aptitudes and skills, interests, personality, and health. There-

fore, while the sample used in providing the results may be reasonably representative of Dunedin, and possibly New Zealand women of child bearing age, the norms provided should be interpreted with reasonable caution. A single result should be taken as giving only a broad estimate of general ability.

Finally, as with most adult ability tests (e.g., the WAIS, cf. Wechsler, 1955), the SRA Verbal Test manual does not report any sex differences. If this can be taken as an indication that sex differences are likely to be minimal, then the results reported in this paper may be broadly applied to men as well as women.

References

- Cronbach, L. J. *Essentials of Psychological Testing*. New York: Harper and Row, 1960.
- Silva, P. A. A thousand Dunedin three year olds. Unpublished research report presented to the Medical Research Council of New Zealand. Available from the University of Otago Medical Library, 1976.
- Silva, P. A., Buckfield, P. M., Spears, G. F., & Williams, S. M. Poisoning, burns and other accidents experienced by a thousand Dunedin three year olds: A report from the Dunedin Multidisciplinary Child Development Study. *New Zealand Medical Journal*, 1978, 87, 242-244.
- Thurstone, T. G., and Thurstone, L. L. *The SRA Verbal Form*. Chicago: Science Research Associates, 1973.
- Vernon, P. E. *The Burt (rearranged) Word Reading Test*. London: University of London Press, 1967.
- Wechsler, D. *Manual for the Wechsler Adult Intelligence Scale*. New York: The Psychological Corporation, 1955.

Acknowledgements

The Dunedin Multidisciplinary Child Development Study is supported by the Medical Research Council of New Zealand, the New Zealand Department of Education, the Department of Health and involves several departments of the University of Otago. Many of the data are gathered by volunteer workers from the Dunedin community. The author is indebted to the many people whose contribution makes this ongoing study possible.

The author is grateful to SRA for permission to reproduce the SRA Verbal Test.