

ACER Applied Reading Test, 2nd Edition (ART-2) – Technical/Trades Form

Electrical Trades Supplementary Information

Electrical Trades Apprenticeship and Trainee Applicants

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Additional normative data for the *ACER Applied Reading Test (ART-2) Technical/Trades Form*, derived from an Australian reference sample of electrical trades apprenticeship and trainee applicants, is presented in this supplement.

Sample Characteristics

The reference group comprised 321 persons who applied for apprenticeships or traineeships within a large Australian energy company in 2007. Apprenticeships were for the roles of communications technician, electrical meter technician, power systems electrician and powerline worker. Traineeships were for the roles of electrical tester and technical officer.

Sex data is provided in Table 1. Age data was not available.

Table 1. Reference Sample by Sex

Gender	Number of participants
Male	303
Female	6
Missing data	12

$N = 321$.

The data in Table 1 shows that the reference sample were mainly male with females making up only 2% of the group.

Performance of Electrical Trades Apprenticeship and Trainee Applicants on the ART-2 Technical/Trades Form

Summary performance statistics for the reference group are presented in Table 2.

Table 2. Summary Performance Statistics for Electrical Trades Apprenticeship and Trainee Applicants on the ART-2 Technical/Trades Form.

	Min	Max	Mean	Std. Deviation	Percentage of Items Correct
ART-2	0	30	25.95	3.51	87%

$N = 321$.

Table 3 below contains norm data needed to convert *ART-2* Technical/Trade Form raw scores into percentile ranks. The data allow the performance of test-takers to be ranked in relation to the current reference group.

Table 3. Score Conversion data for the *ART-2* Technical/Trade Form

Raw Score	*Percentile Rank
0	0
1	<1
2	<1
3	<1
4	<1
5	<1
6	<1
7	<1
8	<1
9	<1
10	<1
11	<1
12	1
13	1
14	1
15	1
16	2
17	2
18	3
19	4
20	5
21	6
22	10
23	13
24	17
25	27
26	33
27	47
28	61
29	79
30	92

N = 321. * Rounded to nearest whole figure

Score Classification Ranges for the ART-2 Technical/Trade Form

Below in Table 4, reference group raw scores and percentile ranks are converted into the classification ranges commonly applied to measures of ability. While less precise than percentile rankings, these ranges allow the performance of any ART-2 test-taker to be classified and discussed in common terms.

Table 4. ART-2 Technical/Trade Form raw scores and percentile ranks by classification range

Classification range	Percentile Ranks	Raw scores
Extremely low	1 to 4	1 to 19
Very low	5 to 11	20 to 22
Below average	12 to 23	23 to 24
Slightly below average	24 to 40	25 to 26
Average	41 to 60	27
Slightly above average	61 to 77	28
Above average	78 to 89	29
Well above average	90 to 96	30
Superior	97 to 100	-

Looking at Table 4, it can be seen that a raw score of 29 falls in the 'Above average' range. Persons scoring in this range are likely to very comfortable reading and interpreting technical material.

References

Australian Council for Educational Research. (2006). *ACER Applied Reading Test* (2nd ed.). Melbourne, Australia: ACER Press.