

# General Reasoning Test Battery

## Reliability: South Africans, ethnic group European, updated 2011

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### Characteristics of the sample

The sample consisted of South Africans of European race, tested by Psytech SA and collaborators in the period up to February 2011. Biographical particulars are reported separately for the different subtests of the GRT2, since not all respondents completed the entire battery.

### Biographical Characteristics: respondents who completed the Verbal Reasoning Test

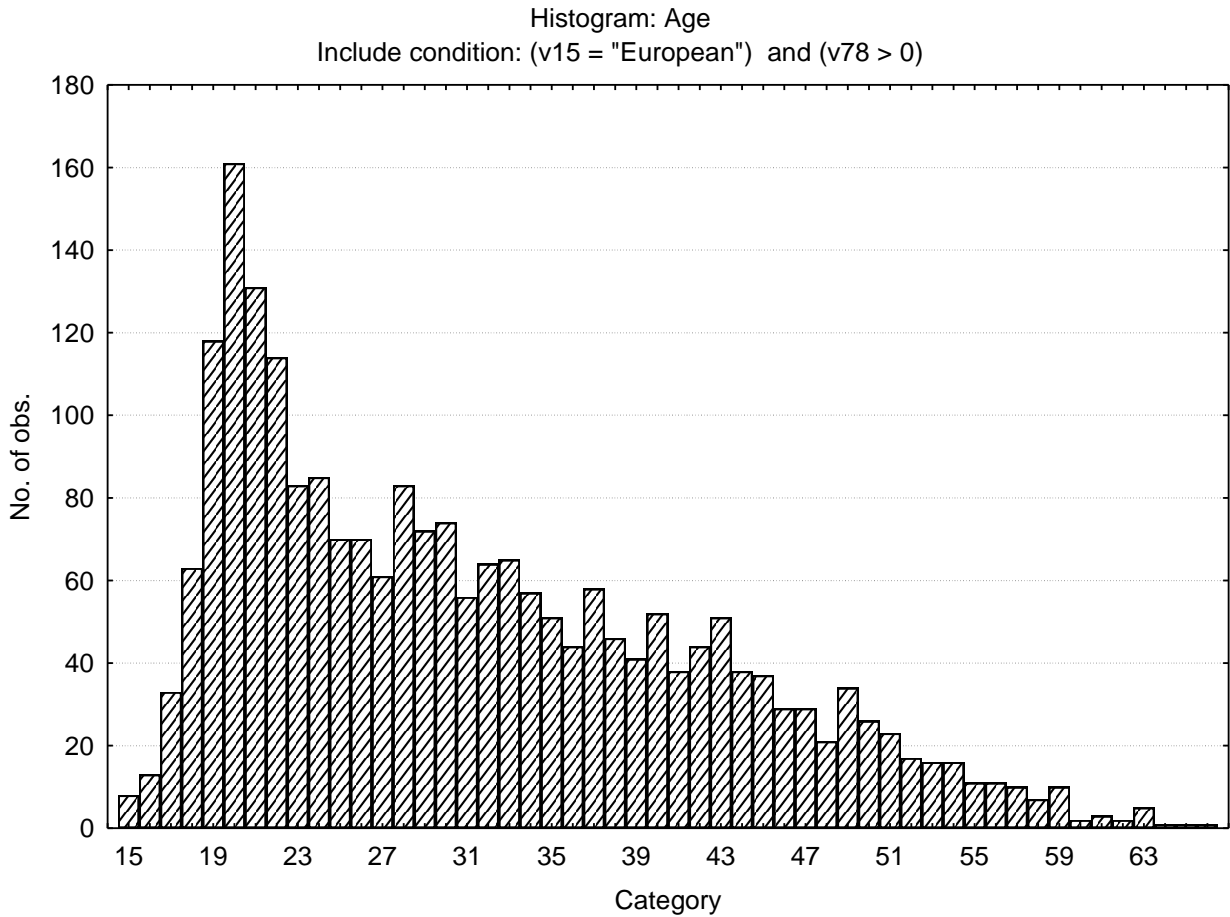
| Category | Frequency table: Sex |                  |          |                    |
|----------|----------------------|------------------|----------|--------------------|
|          | Count                | Cumulative Count | Percent  | Cumulative Percent |
| F        | 837                  | 837              | 36.53426 | 36.5343            |
| M        | 1447                 | 2284             | 63.16019 | 99.6945            |
| Missing  | 7                    | 2291             | 0.30554  | 100.0000           |

| Category            | Frequency table: Education |                  |          |                    |
|---------------------|----------------------------|------------------|----------|--------------------|
|                     | Count                      | Cumulative Count | Percent  | Cumulative Percent |
| Technikon           | 302                        | 302              | 13.18202 | 13.1820            |
| Grade 12            | 1033                       | 1335             | 45.08948 | 58.2715            |
| University Diploma  | 88                         | 1423             | 3.84112  | 62.1126            |
| Degree              | 179                        | 1602             | 7.81318  | 69.9258            |
| Vocational Training | 66                         | 1668             | 2.88084  | 72.8066            |
| Grade 10 or 11      | 132                        | 1800             | 5.76168  | 78.5683            |
| Grade 8             | 2                          | 1802             | 0.08730  | 78.6556            |
| Grade 9             | 6                          | 1808             | 0.26189  | 78.9175            |
| Post Graduate       | 89                         | 1897             | 3.88477  | 82.8023            |
| Missing             | 394                        | 2291             | 17.19773 | 100.0000           |

| Category  | Frequency table: Language |                  |          |                    |
|-----------|---------------------------|------------------|----------|--------------------|
|           | Count                     | Cumulative Count | Percent  | Cumulative Percent |
| isiZulu   | 2                         | 2                | 0.08730  | 0.0873             |
| English   | 870                       | 872              | 37.97468 | 38.0620            |
| Afrikaans | 1305                      | 2177             | 56.96203 | 95.0240            |
| Setswana  | 1                         | 2178             | 0.04365  | 95.0677            |
| Sesotho   | 1                         | 2179             | 0.04365  | 95.1113            |
| Sepedi    | 3                         | 2182             | 0.13095  | 95.2423            |
| isiXhosa  | 5                         | 2187             | 0.21825  | 95.4605            |
| Missing   | 104                       | 2291             | 4.53950  | 100.0000           |

| Category   | Frequency table: Language Group |                  |          |                    |
|------------|---------------------------------|------------------|----------|--------------------|
|            | Count                           | Cumulative Count | Percent  | Cumulative Percent |
| English    | 870                             | 870              | 37.97468 | 37.9747            |
| Afrikaans  | 1305                            | 2175             | 56.96203 | 94.9367            |
| Indigenous | 12                              | 2187             | 0.52379  | 95.4605            |
| Missing    | 104                             | 2291             | 4.53950  | 100.0000           |

| Variable | Descriptive Statistics: Age |          |          |          |      |                  |
|----------|-----------------------------|----------|----------|----------|------|------------------|
|          | Mean                        | Std.Dev  | Minimum  | Maximum  | N    | No.cases Missing |
| Age      | 31.23316                    | 10.79142 | 15.00000 | 71.00000 | 2256 | 35               |



**Biographical characteristics: respondents who completed the Numerical Reasoning Test**

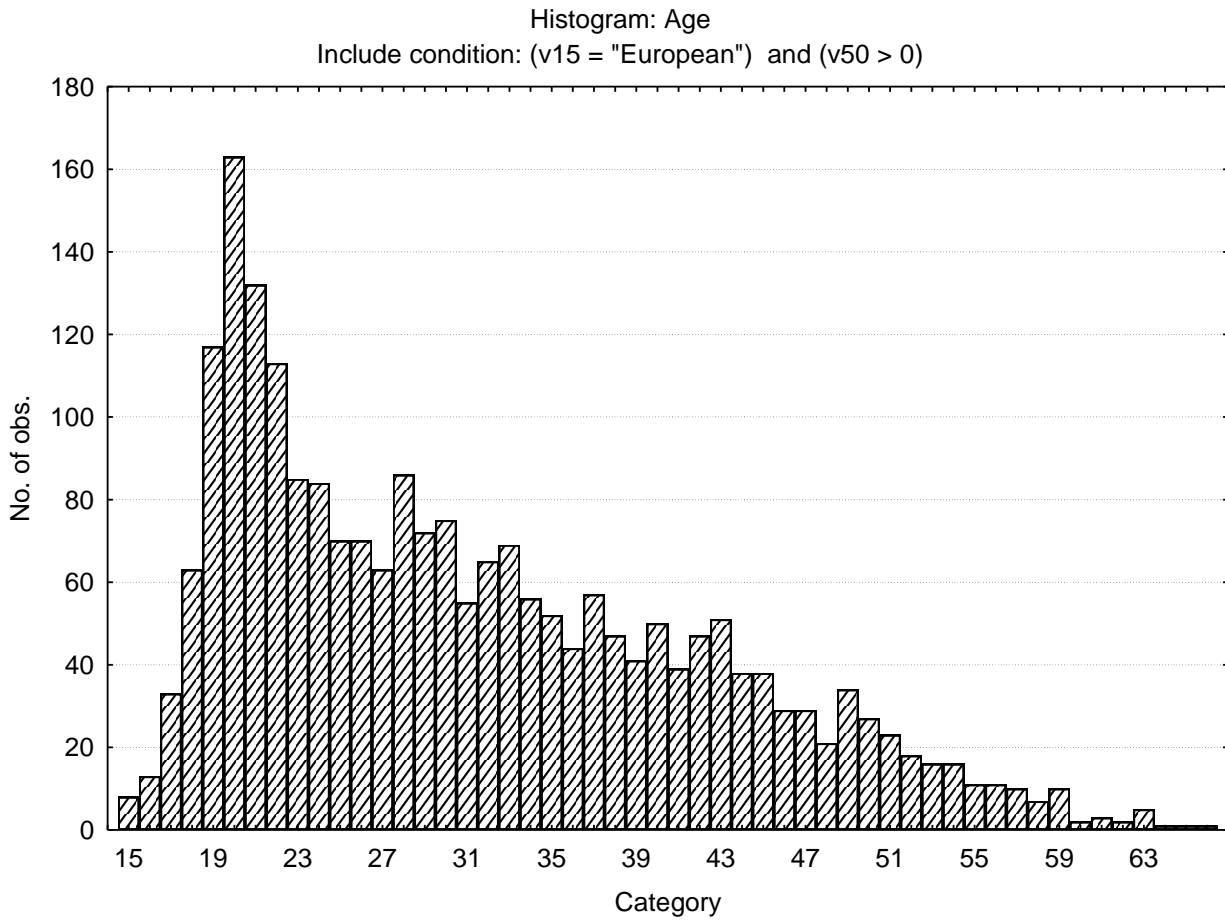
| Category | Frequency table: Sex |                  |          |                    |
|----------|----------------------|------------------|----------|--------------------|
|          | Count                | Cumulative Count | Percent  | Cumulative Percent |
| F        | 842                  | 842              | 36.48180 | 36.4818            |
| M        | 1459                 | 2301             | 63.21490 | 99.6967            |
| Missing  | 7                    | 2308             | 0.30329  | 100.0000           |

| Category            | Frequency table: Education |                  |          |                    |
|---------------------|----------------------------|------------------|----------|--------------------|
|                     | Count                      | Cumulative Count | Percent  | Cumulative Percent |
| Technikon           | 302                        | 302              | 13.08492 | 13.0849            |
| Grade 12            | 1045                       | 1347             | 45.27730 | 58.3622            |
| University Diploma  | 89                         | 1436             | 3.85615  | 62.2184            |
| Degree              | 178                        | 1614             | 7.71231  | 69.9307            |
| Vocational Training | 66                         | 1680             | 2.85962  | 72.7903            |
| Grade 10 or 11      | 133                        | 1813             | 5.76256  | 78.5529            |
| Grade 8             | 2                          | 1815             | 0.08666  | 78.6395            |
| Grade 9             | 6                          | 1821             | 0.25997  | 78.8995            |
| Post Graduate       | 86                         | 1907             | 3.72617  | 82.6256            |
| Missing             | 401                        | 2308             | 17.37435 | 100.0000           |

| Category  | Frequency table: Language |                  |          |                    |
|-----------|---------------------------|------------------|----------|--------------------|
|           | Count                     | Cumulative Count | Percent  | Cumulative Percent |
| isiZulu   | 2                         | 2                | 0.08666  | 0.0867             |
| English   | 879                       | 881              | 38.08492 | 38.1716            |
| Afrikaans | 1308                      | 2189             | 56.67244 | 94.8440            |
| Setswana  | 1                         | 2190             | 0.04333  | 94.8873            |
| Sesotho   | 1                         | 2191             | 0.04333  | 94.9307            |
| Sepedi    | 3                         | 2194             | 0.12998  | 95.0607            |
| isiXhosa  | 5                         | 2199             | 0.21664  | 95.2773            |
| Missing   | 109                       | 2308             | 4.72270  | 100.0000           |

| Category   | Frequency table: Language Group |                  |          |                    |
|------------|---------------------------------|------------------|----------|--------------------|
|            | Count                           | Cumulative Count | Percent  | Cumulative Percent |
| English    | 879                             | 879              | 38.08492 | 38.0849            |
| Afrikaans  | 1308                            | 2187             | 56.67244 | 94.7574            |
| Indigenous | 12                              | 2199             | 0.51993  | 95.2773            |
| Missing    | 109                             | 2308             | 4.72270  | 100.0000           |

| Variable | Descriptive Statistics: Age |          |          |          |      |                  |
|----------|-----------------------------|----------|----------|----------|------|------------------|
|          | Mean                        | Std.Dev  | Minimum  | Maximum  | N    | No.cases Missing |
| Age      | 31.25429                    | 10.78301 | 15.00000 | 71.00000 | 2273 | 35               |



### Biographical characteristics: Respondents who completed the Abstract Reasoning Test

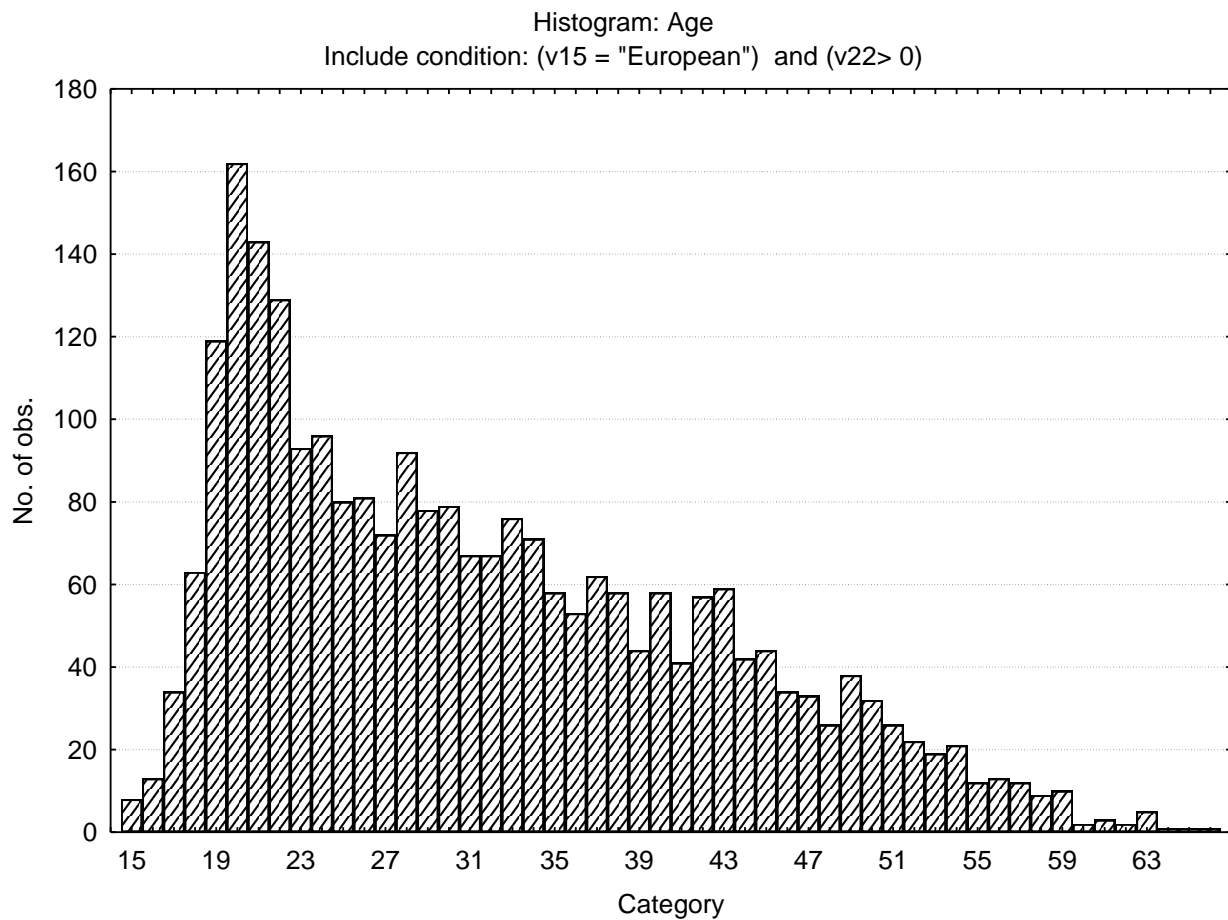
| Category | Frequency table: Sex |                  |          |                    |
|----------|----------------------|------------------|----------|--------------------|
|          | Count                | Cumulative Count | Percent  | Cumulative Percent |
| F        | 892                  | 892              | 34.73520 | 34.7352            |
| M        | 1668                 | 2560             | 64.95327 | 99.6885            |
| Missing  | 8                    | 2568             | 0.31153  | 100.0000           |

| Category            | Frequency table: Education |                  |          |                    |
|---------------------|----------------------------|------------------|----------|--------------------|
|                     | Count                      | Cumulative Count | Percent  | Cumulative Percent |
| Technikon           | 346                        | 346              | 13.47352 | 13.4735            |
| Grade 12            | 1107                       | 1453             | 43.10748 | 56.5810            |
| University Diploma  | 99                         | 1552             | 3.85514  | 60.4361            |
| Degree              | 225                        | 1777             | 8.76168  | 69.1978            |
| Vocational Training | 67                         | 1844             | 2.60903  | 71.8069            |
| Grade 10 or 11      | 142                        | 1986             | 5.52960  | 77.3364            |
| Grade 8             | 2                          | 1988             | 0.07788  | 77.4143            |
| Grade 9             | 7                          | 1995             | 0.27259  | 77.6869            |
| Post Graduate       | 132                        | 2127             | 5.14019  | 82.8271            |
| Missing             | 441                        | 2568             | 17.17290 | 100.0000           |

| Category  | Frequency table: Language |                  |          |                    |
|-----------|---------------------------|------------------|----------|--------------------|
|           | Count                     | Cumulative Count | Percent  | Cumulative Percent |
| isiZulu   | 2                         | 2                | 0.07788  | 0.0779             |
| English   | 1061                      | 1063             | 41.31620 | 41.3941            |
| Afrikaans | 1382                      | 2445             | 53.81620 | 95.2103            |
| Setswana  | 1                         | 2446             | 0.03894  | 95.2492            |
| Sesotho   | 2                         | 2448             | 0.07788  | 95.3271            |
| Sepedi    | 4                         | 2452             | 0.15576  | 95.4829            |
| siSwati   | 1                         | 2453             | 0.03894  | 95.5218            |
| isiXhosa  | 6                         | 2459             | 0.23364  | 95.7555            |
| Missing   | 109                       | 2568             | 4.24455  | 100.0000           |

| Category   | Frequency table: Language Group |                  |          |                    |
|------------|---------------------------------|------------------|----------|--------------------|
|            | Count                           | Cumulative Count | Percent  | Cumulative Percent |
| English    | 1061                            | 1061             | 41.31620 | 41.3162            |
| Afrikaans  | 1382                            | 2443             | 53.81620 | 95.1324            |
| Indigenous | 16                              | 2459             | 0.62305  | 95.7555            |
| Missing    | 109                             | 2568             | 4.24455  | 100.0000           |

| Variable | Descriptive Statistics : Age |          |          |          |      |                  |
|----------|------------------------------|----------|----------|----------|------|------------------|
|          | Mean                         | Std.Dev  | Minimum  | Maximum  | N    | No.cases Missing |
| Age      | 31.61682                     | 10.78160 | 15.00000 | 71.00000 | 2521 | 47               |



### Internal Consistency reliabilities for General Reasoning Test subtests

| Subtest             | Cronbach Coefficient Alpha |
|---------------------|----------------------------|
| Verbal Reasoning    | .83                        |
| Numerical Reasoning | .87                        |
| Abstract Reasoning  | .82                        |