

# Technical Test Battery (TTB2)

## Reliability: South Africans, Sepedi Speakers, Updated 2016

---

### Sample Composition

The sample consisted of respondents who had completed any of the subtests of the Technical Test Battery (TTB2) battery in the period up to June 2015, via GeneSys for Windows. Since not all the respondents completed all the subtests, biographical information is reported separately for the three tests.

### Mechanical Reasoning Test: Biographical Composition

Category	Frequency table: Sex			
	Count	Cumulative Count	Percent	Cumulative Percent
M	181	181	41,70507	41,7051
F	250	431	57,60369	99,3088
U	3	434	0,69124	100,0000
Missing	0	434	0,00000	100,0000

Category	Frequency table: Education			
	Count	Cumulative Count	Percent	Cumulative Percent
Tertiary	9	9	2,07373	2,0737
< Matric	308	317	70,96774	73,0415
Grade 12	57	374	13,13364	86,1751
Missing	60	434	13,82488	100,0000

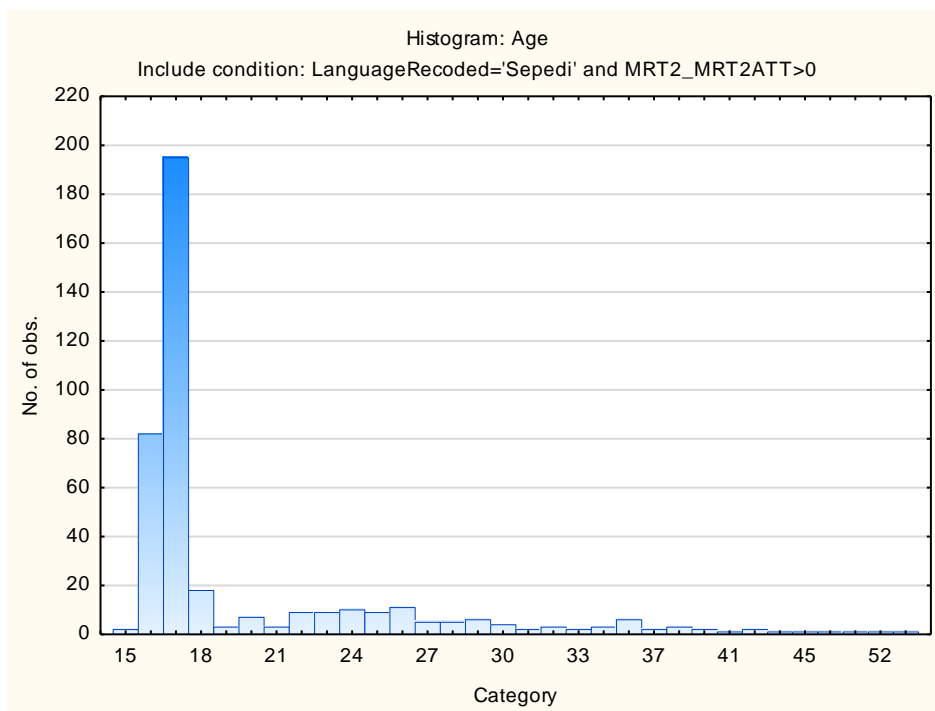
It should be noted that the majority of respondents had not completed matric.

Category	Frequency table: Language			
	Count	Cumulative Count	Percent	Cumulative Percent
Sepedi	434	434	100,0000	100,0000
Missing	0	434	0,0000	100,0000

Category	Frequency table: Language Group			
	Count	Cumulative Count	Percent	Cumulative Percent
Indigenous	434	434	100,0000	100,0000
Missing	0	434	0,0000	100,0000

Category	Frequency table: Race			
	Count	Cumulative Count	Percent	Cumulative Percent
African	429	429	98,84793	98,8479
Coloured	1	430	0,23041	99,0783
Asian	2	432	0,46083	99,5392
Missing	2	434	0,46083	100,0000

Variable	Descriptive Statistics: Age					
	Mean	Std.Dev	Minimum	Maximum	N	No.cases Missing
Age	19,95610	6,451855	15,00000	54,00000	410	24



## Spatial Reasoning Test: Biographical Composition

Category	Frequency table: Sex			
	Count	Cumulative Count	Percent	Cumulative Percent
M	80	80	86,95652	86,9565
F	12	92	13,04348	100,0000
Missing	0	92	0,00000	100,0000

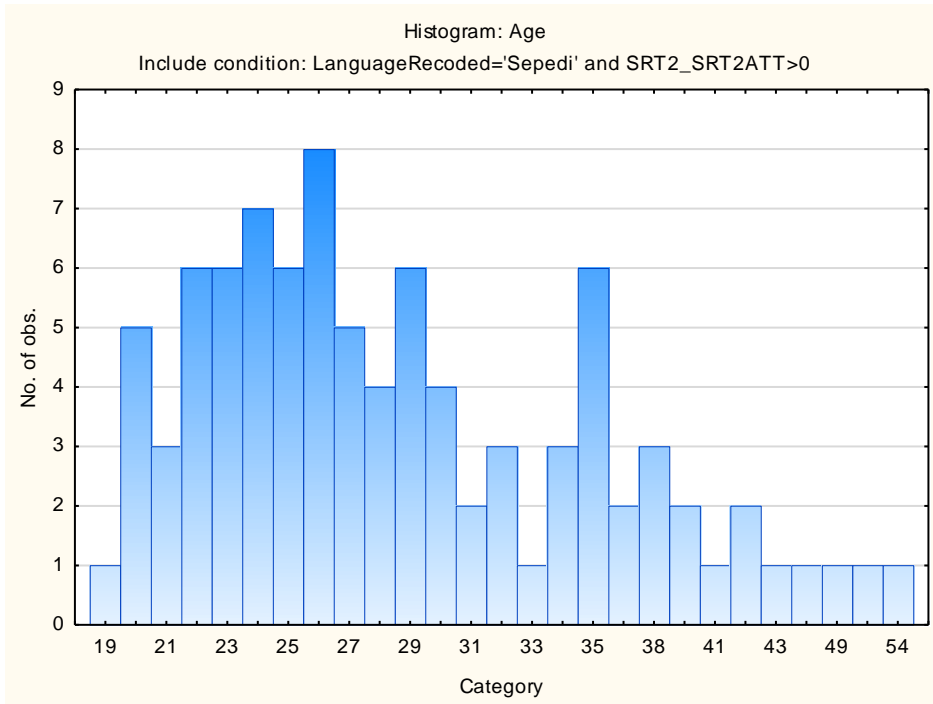
Category	Frequency table: Education			
	Count	Cumulative Count	Percent	Cumulative Percent
Tertiary	9	9	9,78261	9,7826
< Matric	15	24	16,30435	26,0870
Grade 12	15	39	16,30435	42,3913
Missing	53	92	57,60870	100,0000

Category	Frequency table: Language			
	Count	Cumulative Count	Percent	Cumulative Percent
Sepedi	92	92	100,0000	100,0000
Missing	0	92	0,0000	100,0000

Category	Frequency table: Language Group			
	Count	Cumulative Count	Percent	Cumulative Percent
Indigenous	92	92	100,0000	100,0000
Missing	0	92	0,0000	100,0000

Category	Frequency table: Race			
	Count	Cumulative Count	Percent	Cumulative Percent
African	92	92	100,0000	100,0000
Missing	0	92	0,0000	100,0000

Variable	Descriptive Statistics: Age					
	Mean	Std.Dev	Minimum	Maximum	N	No.cases Missing
Age	29,19780	7,459848	19,00000	54,00000	91	1



## Visual Acuity Test: Biographical Composition

No first language Sepedi speakers completed the VAC

## Cronbach Coefficient Alpha for Technical Test Battery Subtests:

Subtest	Cronbach Coefficient Alpha
Mechanical Reasoning Test	0,65

Results of lower than 0.75 are possibly related to respondents guessing the answers to items which they may not know, or a lack of exposure to the type of item content - which could be related to educational background. Results should therefore be interpreted with caution. Do not rely on these tests in isolation, but to consider the results as part of a holistic assessment, which incorporates additional sources of information. It should be remembered with the TTB2, that these tests have a knowledge component, they are not purely ability assessments. Therefore it is recommended that they should be used together with at least an Abstract Reasoning test. They do not substitute for general reasoning ability. School results should also be considered.

There was insufficient data to report on reliability for either the SRT2 or the VAC.

## Standard Error of Measurement

Subtest	SEM	SD	Reliability
Mechanical Reasoning Test	2,75445635	4,655881	0,65