

Abstract Reasoning Test (ART)

Reliability: South Africans, Indigenous Language Speakers, 2017

Composition of the Sample

Compiled from raw data on 968 respondents collected by Psytech SA and collaborators, via GeneSys for Windows and GeneSys Online, in the period between March 2012 and May 2017.

Biographical Composition of the Abstract Reasoning Test

Category	Frequency table: Sex			
	Count	Cumulative Count	Percent	Cumulative Percent
F	422	422	43,59504	43,5950
M	527	949	54,44215	98,0372
U	19	968	1,96281	100,0000
Missing	0	968	0,00000	100,0000

Category	Frequency table: Education			
	Count	Cumulative Count	Percent	Cumulative Percent
Tertiary	87	87	8,98760	8,9876
Grade 12	801	888	82,74793	91,7355
Post Graduate	57	945	5,88843	97,6240
< Matric	12	957	1,23967	98,8636
Missing	11	968	1,13636	100,0000

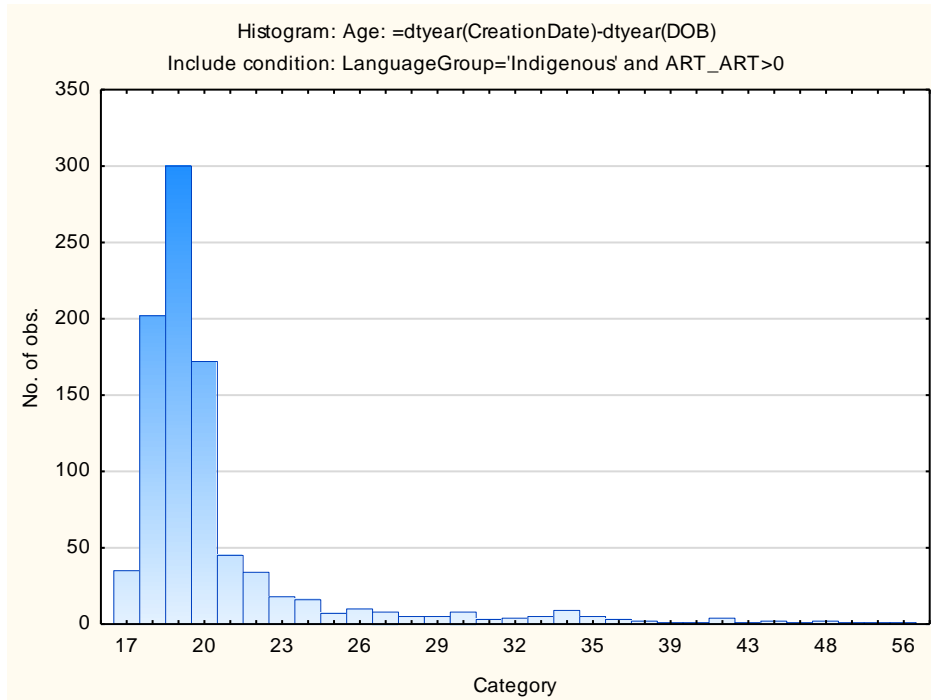
Category	Frequency table: Race			
	Count	Cumulative Count	Percent	Cumulative Percent
African	953	953	98,45041	98,4504
European	2	955	0,20661	98,6570
Asian	5	960	0,51653	99,1736
Missing	8	968	0,82645	100,0000

Category	Frequency table: Language			
	Count	Cumulative Count	Percent	Cumulative Percent
Sepedi	188	188	19,42149	19,4215

Category	Frequency table: Language			
	Count	Cumulative Count	Percent	Cumulative Percent
siSwati	60	248	6,19835	25,6198
Setswana	115	363	11,88017	37,5000
Xitsonga	66	429	6,81818	44,3182
isiZulu	248	677	25,61983	69,9380
isiXhosa	89	766	9,19421	79,1322
Sesotho	105	871	10,84711	89,9793
Tshivenda	85	956	8,78099	98,7603
isiNdebele	12	968	1,23967	100,0000
Missing	0	968	0,00000	100,0000

Category	Frequency table: Language Group			
	Count	Cumulative Count	Percent	Cumulative Percent
Indigenous	968	968	100,0000	100,0000
Missing	0	968	0,0000	100,0000

Variable	Descriptive Statistics: Age					
	Mean	Std.Dev	Minimum	Maximum	N	No.cases Missing
Age	20,60373	4,717974	17,00000	56,00000	911	57



Cronbach Coefficient Alpha and Standardised Alpha for Abstract Reasoning Test

Subtest	Cronbach Coefficient Alpha	Standardised Alpha
Abstract Reasoning Test	0,81	0,80

Split-half Reliability

Subtest	Corr. 1st & 2nd half	Attenuation corrected
Abstract Reasoning Test	0,69	---

Subtest	Split-half reliability	Guttman split-half
Abstract Reasoning Test	0,82	0,82

The items were split into odd and even numbers.

There are various ways of calculating reliability. We have reported on the calculations we did.

Standard Error of Measurement

Subtest	SEM	SD	Reliability
Abstract Reasoning Test	2,2470451	5,155075	0,81