Psychometric Report

Extroversion/Introversion Test

Description:

A 40-item test assessing extroversion/introversion. Low scores indicate extreme introversion; high scores indicate extreme extroversion. The test yields an overall extroversion/introversion score and a personalized interpretation of the results.

Reference:

Jerabek, I. (1997). Extroversion/Introversion Inventory - Revised. Queendom.com

Sample Size: 40887

Sample Description:

The sample used in this study was randomly selected from a pool of over 80000 participants. It includes men and women, aged 10 to 80, who took the test on the Queendom.com website.
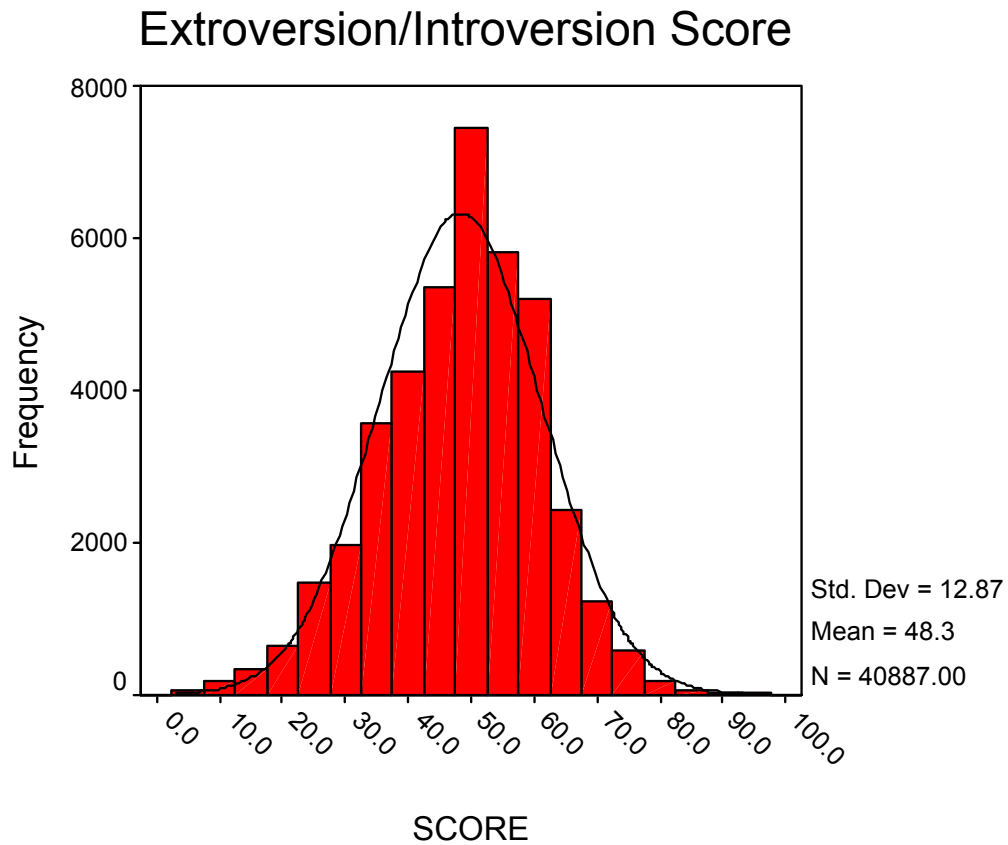
Number of questions: 40

Descriptive Statistics

See Annex 1 for Descriptive statistics

Distribution for the Extroversion/Introversion Test

The distribution of the scores is shown in red; the normal curve is represented by the black line plotted over it. The scores are displayed on the x-axis. The y-axis corresponds to the number of respondents who fall into the relevant score range.

Extroversion/Introversion Score

Std. Dev = 12.87

Mean = 48.3

N = 40887.00

SCORE

Reliability and Internal Consistency

Score (26 items)

Inter-Item Consistency
Cronbach's Coefficient Alpha: 0.8811

Split-Half Reliability
Correlation between forms: 0.7557
Spearman-Brown formula: 0.8608
Guttman's formula: 0.8597

Criterion and Construct Validity

1. Relationship between extroversion score and self-esteem:

Question #1: How is your self-esteem?
VALUE="1" > Rock bottom
VALUE="2" > Low
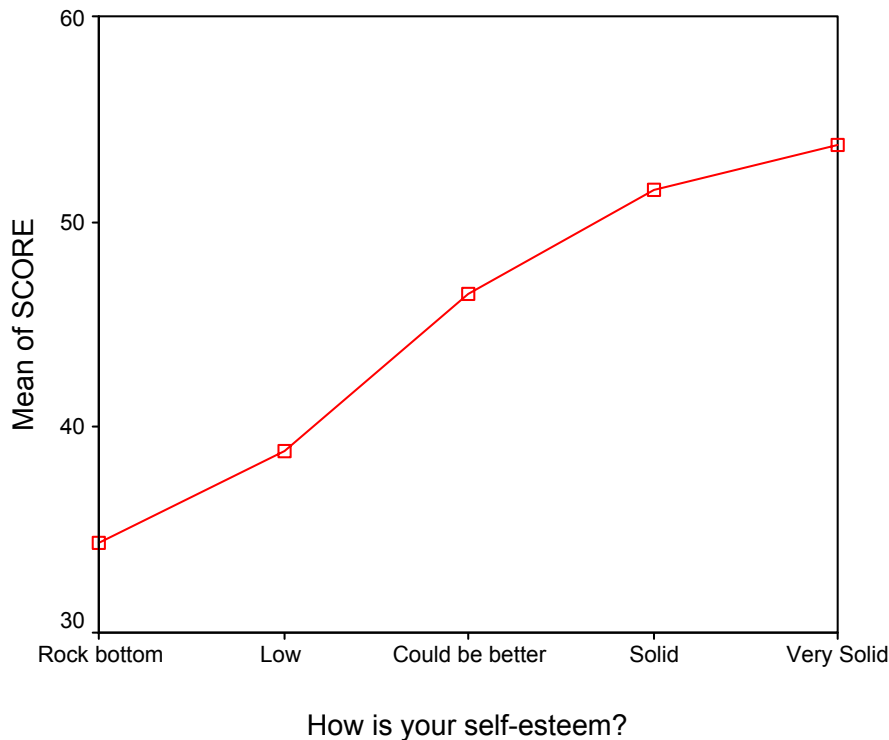VALUE="3" > Could be better
VALUE="4" > Solid
VALUE="5" > Very solid

Significant score differences were found among groups of subjects depending on their level of self-esteem. Subjects who rated themselves the highest on self-esteem had the highest extroversion scores. Subjects who rated themselves the lowest on self-esteem had the lowest extroversion scores. The relationship seems linear – the higher one perceives their self-esteem to be, the higher their extroversion score. The effects are robust. See Annex 2 for a table showing homogeneous subsets.

$F_{(4,25279)} = 937.736$ $p < 0.0001$

EXTROVERSION SCORE AND SELF-ESTEEM

How is your self-esteem?

2. Relationship between extroversion score and enjoyment interacting with others:

Question #2: Do you enjoy interacting with other people?
VALUE="1" > Never
VALUE="2" > Not very often
VALUE="3" > Once in a while
VALUE="4" > Sometimes
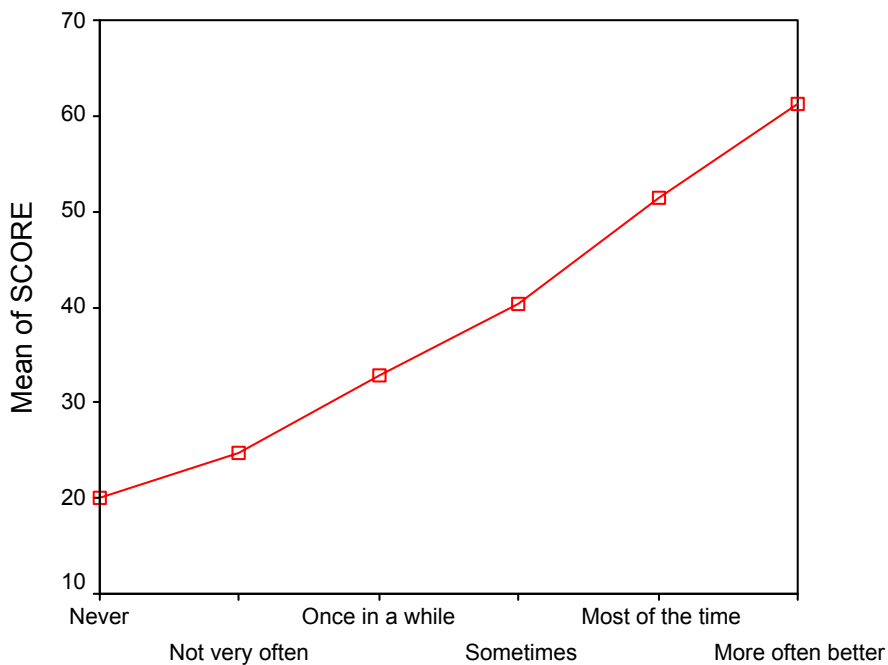VALUE="5" > Most of the time
VALUE="6" > The more often the better

Significant score differences were found among groups of subjects depending on their enjoyment interacting with others. Subjects who reported the highest enjoyment interacting with others had the highest extroversion scores. Subjects who reported the lowest enjoyment interacting with others had the lowest extroversion scores. A positive linear correlation was found between extroversion scores and the amount of enjoyment one gets interacting with others. The effects are robust. See Annex 3 for a table showing homogeneous subsets.

$F_{(5,25516)} = 5732.130$ $\qquad$ $p < 0.0001$

EXTROVERSION SCORE AND ENJOYMENT INTERACTING WITH OTHERS:
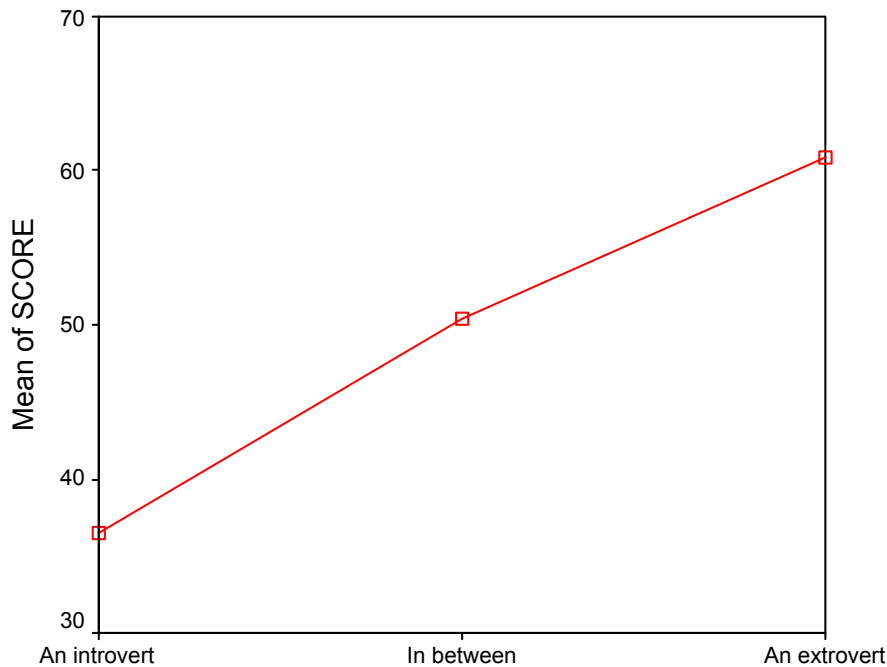

Do you enjoy interacting with other people?

3. Relationship between extroversion score and extroversion self-rating:

Question #3: Off the top of your head, would you say you are:
VALUE="1" > An introvert
VALUE="2" > Somewhere in between
VALUE="3" > An extrovert

Significant score differences were found among groups of subjects depending on their self-reported extroversion scores. Subjects who rated themselves as "extroverts" had the highest extroversion scores. Subjects who rated themselves as "introverts" had the lowest extroversion scores. A linear relationship was found between the extroversion score and one's self rating on extroversion: as one's perceived extroversion increased so did their extroversion score. The effects are robust. See Annex 4 for a table showing homogeneous subsets.

$F_{(2,249490)}$ = 10325.315 $p < 0.0001$

EXTROVERSION AND EXTROVERSION SELF-RATING
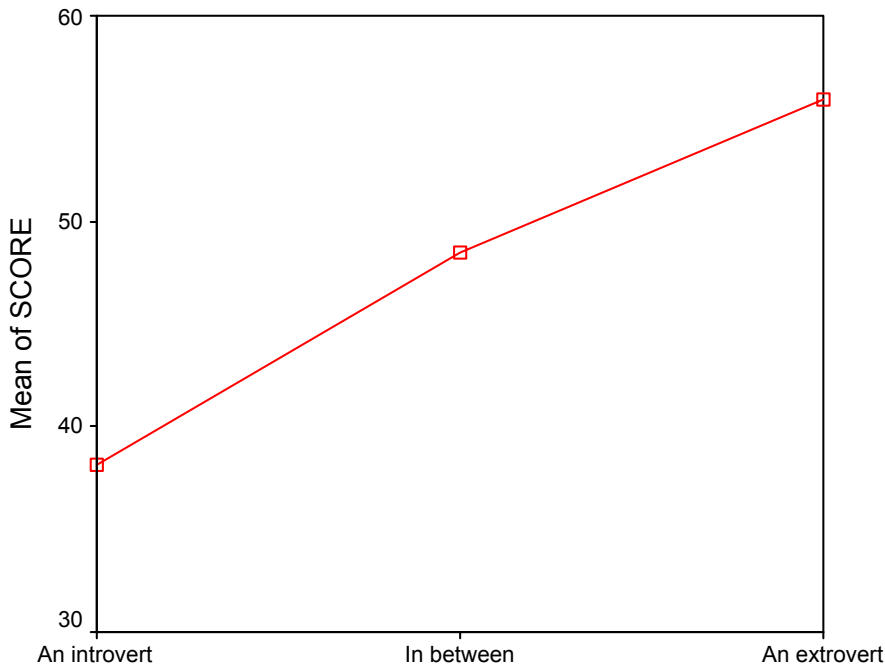

Off the top of your head, would you say you are:

4. Relationship between extroversion score and extroversion rating by others:

Question #4: Others would say you are:
VALUE="1" > An introvert
VALUE="2" > Somewhere in between
VALUE="3" > An extrovert

Significant score differences were found among groups of subjects depending on their extroversion level reported by others. Subjects who were rated as "extroverts" by others had the highest extroversion scores while subjects who were rated as "introverts" by others had the lowest extroversion scores. A positive linear correlation was found between one's extroversion score and other people's ratings of the subjects extroversion level: the higher the extroversion score for a particular subject, the higher other's perceived the subject extroversion levels to be. The effects are robust. See Annex 5 for a table showing homogeneous subsets.

$F_{(2,24167)} = 5196.421$ $p < 0.0001$

EXTROVERSION SCORE AND EXTROVERSION RATED BY OTHERS

Others would say you are:

5. Relationship between extroversion score and score on other extroversion tests:
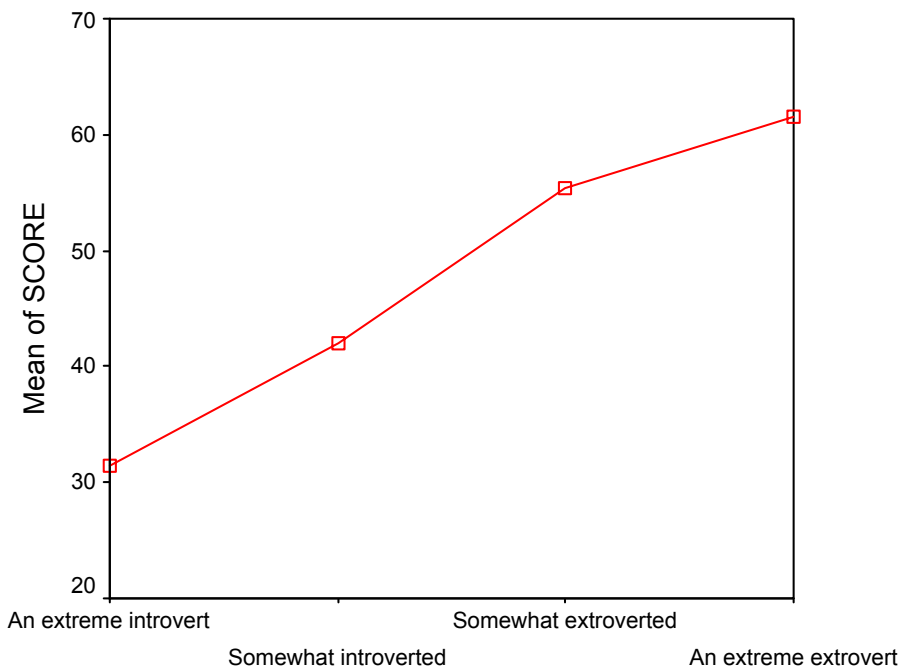
Question #5: Have you taken another introversion/ extroversion test? If so, you were qualified as:
VALUE="1" > An introvert
VALUE="2" > Somewhere in between
VALUE="3" > An extrovert

Significant score differences were found among groups of subjects depending on their classification on other extroversion tests. Subjects who were classified as "extreme extroverts" on other extroversion tests had the highest extroversion scores while subjects who were classified as "extreme introverts" had the lowest extroversion scores. A positive relationship was found between one's extroversion score and their result (or classification) on other extroversion tests. The effects are robust. See Annex 6 for a table showing homogeneous subsets.

$F_{(3,7317)} = 1948.152$ $p < 0.0001$

EXTROVERSION SCORE AND CLASSIFICATION ON OTHER EXTROVERSION TESTS

Have you taken another extroversion test? If so, you were qualified as:

6. Relationship between extroversion score and age groups:

Question #6: Age:
VALUE="1" > 10 - 15
VALUE="2" > 16 - 18
VALUE="3" > 19 - 24
VALUE="4" > 25 – 29
VALUE="4" > 30 – 34
VALUE="5" > 35 – 39
VALUE="6" > 40 – 49
VALUE="7" > 50 – 59
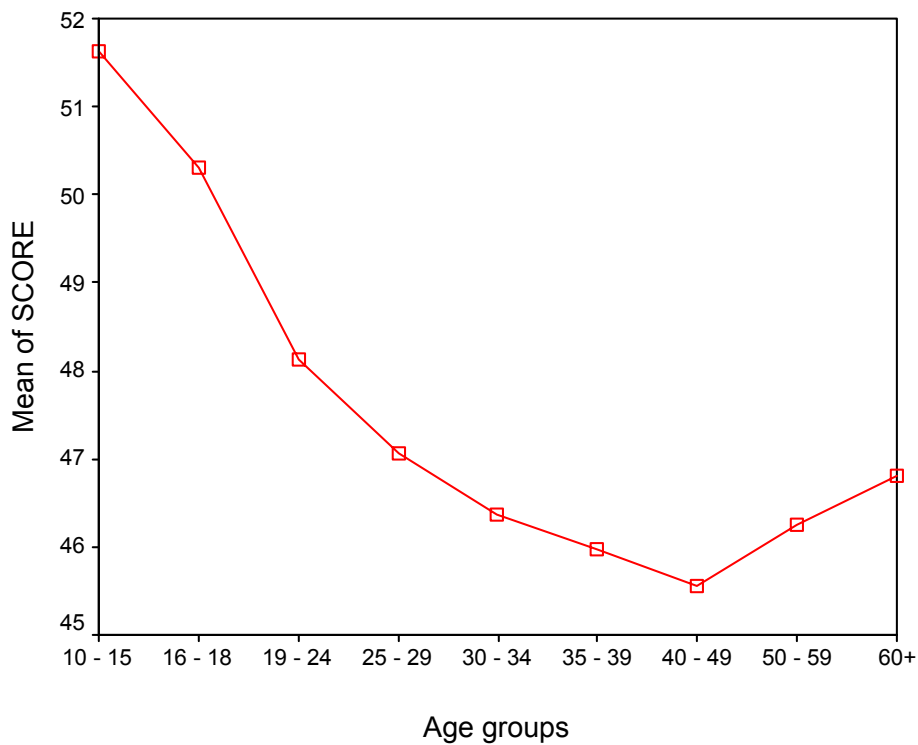VALUE="8" > 60+

Significant score differences were found among various age groups. The relationship seems to be linear – the older one is, the lower the extroversion score, but an increase in extroversion seems to take place once one reaches 50. The effects are robust. See Annex 7 for a table showing homogeneous subsets.

$F_{(8,11210)} = 67.83$ $p < 0.0001$

EXTROVERSION AND AGE GROUPS

Gender Differences

Extroversion score:

- Women scored significantly higher than men on extroversion:
  $t_{(26161)} = 4.017$ $p < 0.0001$ Mean difference: 0.68

GROUP STATISTICS

	Gender	N	Mean	Std. Deviation	Std. Error Mean
Score	Women	17520	48.62	12.654	.096
	Men	8643	47.94	13.599	.146

INDEPENDENT SAMPLES TEST

	t-test for Equality of Means						
	t	df	Sig. (2-tailed)	Mean Difference	Std. Error Difference	95% Confidence Interval of the Difference	
						Lower	Upper
Score	4.017	26161	.000	.68	.171	.351	0.019

• ANNEX 1 -Descriptive Statistics

Statistics
SCORE

N		40887
Mean		48.27
Std. Error of Mean		.064
Median		50.00
Mode		50
Std. Deviation		12.866
Variance		165.541
Skewness		-.256
Std. Error of Skewness		.012
Kurtosis		.283
Std. Error of Kurtosis		.024
Range		98
Minimum		2
Maximum		100
Sum		1973703
Percentiles	1	15.00
	5	25.00
	10	31.00
	15	35.00
	20	37.00
	25	40.00
	30	42.00
	35	44.00
	40	46.00
	45	48.00
	50	50.00
	55	50.00
	60	52.00
	65	54.00
	70	55.00
	75	57.00
	80	59.00
	85	61.00
	90	63.00
	95	68.00
	97	71.00
	99	76.00

ANNEX 2 – Homogeneous Subsets

The following tables present the homogeneous subsets for extroversion score with respect to self-esteem.

EXTROVERSION SCORE

Tukey HSD

How is your self-esteem?	N	Subset for alpha = .05				
		1	2	3	4	5
Rock bottom	664	34.33				
Low	2277		38.81			
Could be better	9929			46.53		
Solid	9560				51.51	
Very Solid	2854					53.79
Sig.		1.000	1.000	1.000	1.000	1.000

Means for groups in homogeneous subsets are displayed.

a Uses Harmonic Mean Sample Size = 1999.279.

b The group sizes are unequal. The harmonic mean of the group sizes is used. Type I error levels are not guaranteed.

ANNEX 3 – Homogeneous Subsets

The following table presents the homogeneous subsets for extroversion score with respect to enjoyment interacting with others.

EXTROVERSION SCORE

Tukey HSD

Do you enjoy interacting with other people?	N	Subset for alpha = .05					
		1	2	3	4	5	6
Never	167	20.02					
Not very often	904		24.82				
Once in awhile	1601			32.76			
Sometimes	6034				40.36		
Most of the time	12223					51.41	
The more often the better	4593						61.15
Sig.		1.000	1.000	1.000	1.000	1.000	1.000

Means for groups in homogeneous subsets are displayed.
a Uses Harmonic Mean Sample Size = 733.130.
b The group sizes are unequal. The harmonic mean of the group sizes is used. Type I error levels are not guaranteed.

ANNEX 4 – Homogeneous Subsets
The following tables present the homogeneous subsets for extroversion score with respect to self-reported extroversion.

EXTROVERSION SCORE

Tukey HSD

Off the top of your head, would you say you are:	N	Subset for alpha = .05		
		1	2	3
An introvert	7704	36.44		
Somewhere in between	12384		50.46	
An extrovert	4864			60.82
Sig.		1.000	1.000	1.000

Means for groups in homogeneous subsets are displayed.
a Uses Harmonic Mean Sample Size = 7209.040.
b The group sizes are unequal. The harmonic mean of the group sizes is used. Type I error levels are not guaranteed.

ANNEX 5 – Homogeneous Subsets

The following tables present the homogeneous subsets for extroversion score with respect to reported extroversion levels by others.

EXTROVERSION SCORE

Tukey HSD

Others would say you are:	N	Subset for alpha = .05		
		1	2	3
An introvert	7144	38.16		
Somewhere in between	8288		48.50	
An extrovert	8738			55.90
Sig.		1.000	1.000	1.000

Means for groups in homogeneous subsets are displayed.
a Uses Harmonic Mean Sample Size = 7998.365.
b The group sizes are unequal. The harmonic mean of the group sizes is used. Type I error levels are not guaranteed.

ANNEX 6 – Homogeneous Subsets

The following tables present the homogeneous subsets for extroversion score with respect to results on other tests.

EXTROVERSION SCORE

Tukey HSD

Have you taken another introversion/extroversion test? If so, you were qualified as:	N	Subset for alpha = .05			
		1	2	3	4
An extreme introvert	992	31.44			
Somewhat introverted	3184		42.06		
Somewhat extroverted	2327			55.35	
An extreme extrovert	818				61.47
Sig.		1.000	1.000	1.000	1.000

Means for groups in homogeneous subsets are displayed.
a Uses Harmonic Mean Sample Size = 1344.824.
b The group sizes are unequal. The harmonic mean of the group sizes is used. Type I error levels are not guaranteed.

ANNEX 7 – Homogeneous Subsets

The following tables present the homogeneous subsets for extroversion score with respect to age group.

EXTROVERSION SCORE

Tukey HSD

Age Groups	N	Subset for alpha = .05 1	2	3
40 – 49 yrs old	1814	45.55		
35 – 39 yrs old	1392	45.97		
50 – 59 yrs old	656	46.24	46.24	
30 – 34 yrs old	2069	46.38	46.38	
60 yrs+	163	46.80	46.80	
25 – 29 yrs old	3216	47.05	47.05	
19 – 24 yrs old	8058		48.12	
16 – 18 yrs old	6519			50.30
10 – 15 yrs old	2381			51.62
Sig.		.264	.060	.449

Means for groups in homogeneous subsets are displayed.
a Uses Harmonic Mean Sample Size = 863.659.
b The group sizes are unequal. The harmonic mean of the group sizes is used. Type I error levels are not guaranteed.