



# The VSQ UK Standard Group «UK2013»

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## What is a Standard Group?

A standard group is used as an indication of how a population will typically score on one of the scales of the VSQ. The indication is a range of typical scores. jobEQ uses this range on its feedback reports in order to give a relative indication of where a person scores in comparison to others. The standard group can be any group, such as a team of sales people, all employees of a certain organization, or the population of a country. In this case the standard group represents the working population of the United Kingdom.

Once we know how a group typically scores, we can determine, in relative terms, whether a person's score is lower than, the same as, or higher than that of a particular population.

A VSQ standard group is calculated by taking the means of a sample of a group, adding one standard deviation to these means to find the upper limit of the standard group and subtracting one standard deviation from the mean to find the lower limit. If we presuppose that the population is approximately normally distributed, we know by definition that approximately two-thirds of the population will fall within the standard group range for the scale. In addition, we can assume that 1 out of 6 individuals will score higher than the standard group and 1 out of 6 will score lower.

## Purpose of a Standard Group?

Standard groups are not intended to add statistical validity. Rather, standard groups help people understand the test results by showing how individuals compare to a given population or group. We use a standard group in VSQ reports to generate visual charts and/or textual explanations of a person's scores as those in the standard group would experience them.

## Purpose of this paper

This paper will explain how the VSQ Standard Group 2013 of the United Kingdom is constructed. First the used sample is documented with essential demographics like gender, age and occupation. Furthermore, the descriptive statistics of the value systems and social pattern variables and their difference with the previous standard group and the world standard group is explained.

## About the sample

The 2013 Standard Group is based on 687 persons working in the United Kingdom, who completed the VSQ questionnaire between December 2001 and March 2013.

### *Filter*

A test criteria filter was used: people who left more than 7 items of 30 unchanged in the questionnaire were not used because of reliability reasons: the test administration of people who leave more 20% of the items unchanged is considered as not valid.

### *Gender*

Concerning gender, the sample represents closely the working population in the UK. The sample has a 50/50 male-female ratio whereas the UK working population has a 49/51 ratio<sup>1</sup>. Both sexes are well represented in comparison to the working population.

Table 1: Comparison of VSQ Standard Group 2013 and working population

<b>VSQ Standard Group 2013 UK</b>	<b>n</b>	<b>%</b>	<b>Working population</b>	<b>%</b>
Male	343	49.93	Male	48.66
Female	344	50.07	Female	51.34
Total	687	100.0	Total	100.0

### *Age*

The average age is 40.8 years old (SD=9.7). Table 2 shows the distribution in age categories. More than 15% of the respondents are Young Professionals, almost half of the standard group (48%) is in their Mid-Career while more than 1/3 of the sample is in their Late Career. Seniors represent more than 1% of the norm group. Only a small fraction (0.7%) of the respondents is under 21 years old, 0.6% has no age indication.

Table 2: age categories

<b>VSQ Standard Group 2013 UK</b>	<b>n</b>	<b>%</b>
Youth	5	0.73
Young Professional 21-30 years	104	15.14
Mid-Career 31-44 years	328	47.74
Late Career 45-60 years	237	34.50
Senior > 60 years	9	1.31
Unknown	4	0.58
Total	687	100.00

If we compare age categories with the data obtained from the UK working population (25% under 20 years old, 13% between 21-30, 23% between 31-44, 19% between 45-60 and 21% above 60), we can conclude that groups at both ends of the age distribution are under-represented. The categories 'Youth' and 'Senior' only represent a small proportion in the sample whereas in the population, they account for 45% of the working population. This

<sup>1</sup> UK employment data (2010) obtained from [www.statistics.gov.uk](http://www.statistics.gov.uk)

implicates that the vast majority of the UK sample has an age between 20 and 60 years old, the period in which most people have their professional careers. This is a quite normal situation since the administration of the VSQ is designed to take place in ‘career time’ and not in periods of ‘study time’ or (almost) retirement.

### *Occupation*

Table 3 shows the distribution of the occupation categories. As one can see the occupations of the respondents are quite varied ranging from less than 1% (‘Engineering’, ‘Homemaker’, ‘Manufacturing’, ‘Retired’ and ‘Tradesman/craftsman’) to 14% (‘Consulting’). Two categories (‘Not specified’ and ‘Other’) account for 16% each indicating that their profession is unknown or other than the categories mentioned. Note that these ‘unknown’ categories and the category ‘Consulting’ are somewhat over-represented.

Table 3: occupation categories

<b>VSQ Standard Group 2013 UK</b>	<b>n</b>	<b>%</b>
[NOT SPECIFIED]	63	9.17
Accounting/Finance	21	3.06
Computer related (Internet)	11	1.60
Computer related (other)	30	4.37
Consulting	97	14.12
Customer service/support	15	2.18
Education/training	82	11.94
Engineering	5	0.73
Executive/senior management	69	10.04
General administrative/supervisory	18	2.62
Government/Military	16	2.33
Homemaker	1	0.15
Manufacturing/production/operations	5	0.73
Other	47	6.84
Professional (medical, legal, etc.)	39	5.68
Research and development	15	2.18
Retired	1	0.15
Sales/marketing/advertising	65	9.46
Self-employed/owner	45	6.55
Student	22	3.20
Tradesman/craftsman	4	0.58
Unemployed/Between Jobs	16	2.33
<b>Grand Total</b>	<b>687</b>	<b>100.00</b>

The 2013 sample cannot be compared to Census data for occupation as there is no comparable data available of this kind. The occupation categories listed in the 2010 census are as follows:

- Agriculture, Hunting and Forestry
- Fishing
- Mining and Quarrying
- Manufacturing
- Electricity, Gas and Water Supply
- Construction
- Wholesale and retail, trade, repair of motor vehicles

- Hotels and catering
- Transport, storage and communication
- Financial intermediation
- Real estate, renting and business activities
- Public administration and defence
- Education
- Health and social work
- Other

The occupation groups outlined by the UK Census are very difficult to be matched to the groups used by VSQ. This is understandable by the fact that VSQ has primarily been used in the white collar work fields whereas the census has a duty to recognize all areas of work.

## **Value Systems and Social Pattern Variables**

Table 4 represents the absolute averages, standard deviations and standard errors of each parameter. Also the absolute difference with the previous UK Standard Group (2005) and the World Standard Group (2013) is given. All parameters show a sufficient variation in scores (standard deviations ranging from more than 9% to 20%). The standard error of the parameters varies from 0.35% to 0.76% with an average 0.56%. When .95 confidence intervals (i.e. mean  $\pm$  1.96 SEM) are constructed around the sample means, one can conclude that in 95% of the cases the mean will fall within a margin less than 0.60% implicating that the estimation of the population means for the 18 variables using the standard group (n=687) is very accurate.

The differences in means with the previous standard group range from 0% up to 5%. In comparison to the previous standard group the value system Obedience makes a downwards shift resulting in an absolute difference of 5% (medium effect size .56), Particularism shows an upward shift reflecting a 5% difference (small effect size .36).

If we compare the UK Standard Group to the World Standard Group, the following major differences are found: the respondents of the UK sample show a higher average score for Survival and a lower average score on Universalism (both 7% absolute difference), resulting in small significant effect sizes (.43 and .39). This means that the differences between the averages of the two groups are substantial: both parameters reflect discrepancies in averages that have a size of more than 1/3 standard deviation. In other words, the UK sample scores more than 1/3 standard deviation higher than the average of the world sample regarding to Survival, on the other hand they score more than 1/3 standard deviation less on Universalism.

Two other significant discrepancies are found: Flexibility shows an absolute difference of 5% with the world sample, while Friends & Harmony shows a difference of 4% (effect sizes of .30 and .27). In other words, the UK sample has a higher average concerning Flexibility and the value system Friends and Harmony.

Table 4: descriptive statistics and differences with VSQ UK2005 and World2013

	<b>Pattern</b>	<b>Average</b>	<b>SD</b>	<b>SEM</b>	<b>Difference with UK2005</b>	<b>Difference with World2013</b>
G1	Survival	52,32%	14,85%	0,55%	- 1%	+ 7%
G2	Safety	28,40%	12,45%	0,46%	0%	- 2%
G3	Use of Power	27,04%	14,44%	0,53%	- 1%	+ 2%
G4	Obedience	36,05%	9,37%	0,35%	- 5%	- 3%
G5	Success	55,14%	14,07%	0,52%	+ 2%	- 2%
G6	Friends & Harmony	60,44%	13,05%	0,48%	0%	+ 4%
G7	Functional & Systemic Thinking	61,96%	12,26%	0,45%	+ 1%	- 1%
G8	Global Village	74,86%	11,79%	0,44%	+ 1%	- 1%
D1	Specific boundaries	56,16%	17,25%	0,64%	0 %	0%
D2	Diffuse boundaries	51,12%	15,00%	0,56%	0 %	+ 2%
LB	Left Brain	60,47%	19,82%	0,73%	- 1%	- 2%
RB	Right Brain	59,91%	18,45%	0,68%	+ 1%	0%
M1	Match	38,46%	15,74%	0,58%	0%	- 3%
M2	Mismatch	38,23%	16,49%	0,61%	- 1%	0%
U1	Universalism	39,71%	17,12%	0,63%	- 1%	- 7%
U2	Particularism	60,44%	15,42%	0,57%	+ 5%	+ 2%
NM	Efficiency	19,63%	20,40%	0,76%	0%	- 1%
FLEX	Flexibility	61,65%	15,13%	0,56%	- 2%	+ 5%

## Conclusion

A representative standard group for the UK was created successfully, consisting out of 687 respondents. Socio-economic variables like gender and age were taken into account. Despite the fact that job categories could not be matched, a heterogeneous sample was provided showing a wide variety of occupations.

Looking at the descriptive statistics of the VSQ, we can report two important conclusions. First, we can state that the VSQ scales can measure quite accurately: all standard error measures are below 0.60%. Second, the scales show enough variation in scores (standard deviations up to 20%) to apprehend the heterogeneity of the standard group.

A comparison to the previous standard group of 2005, reveals two major shifts. The first important finding is a downward trend of the blue value system Obedience, indicating that the UK respondents nowadays find order and discipline less important than they did a small decade ago. The second major finding is an upward trend of Particularism, suggesting that UK people prefer to accept several perceptions of reality and are less bound to formal rules than they did in 2005.

In comparison with the World Standard Group 2013, two substantial differences are found. The results on the beige value system Survival indicate that UK people are more focused on the basic necessities to survive, showing less attention to other people. The lower results on Universalism implicate that UK respondents tend to be less formal and willing to follow the rules. These results are supported by two other findings: UK people show a higher Flexibility and a greater focus on the green value system Friends & Harmony implicating a flexible, informal, pluralistic world view.