

Compute your raw data (survey data) to get your dataset for each functionality

Sample computation

5 – Excellent

4 – Very good

3 – Good

2 – Fair

1 – Poor

N = 50 (Your number of respondents

Functionality	5	Equivalent	4	Equivalent	3	Equivalent	2	Equivalent	1	Equivalent	TOTAL	DATASET
	(count the number of respondents who answered 5 in the survey)	= no. of respondents * multiplier (5)									Total of Equivalent	TOTAL / N
Q1	10	10 * 5 = 50	20	20 * 4 = 80	0	0 * 3 = 0	10	10 * 2 = 20	10	10 * 1 = 10	160	160 / 50 = 3.2
Q2	0	0 * 5 = 0	40	40 * 4 = 160	0	0 * 3 = 0	5	5 * 2 = 10	5	5 * 1 = 5	55	55 / 50 = 1.1
Q3	50	50 * 5 = 250	0	0 * 4 = 0	0	0 * 3 = 0	0	0 * 2 = 0	0	0 * 1 = 0	250	250 / 50 = 5.0

Your dataset will be:

Functionality

Q1	Q2	Q3
3.20	1.10	5.00

Now you will use this dataset to get the following:

1. Measure of Central Tendency (Mean, Median, Shape Distribution, Central Tendency)
2. Measure of Variability (Range, IQR, Standard Deviation) – use the computed mean to get the standard deviation
3. Hypothesis Testing – use the computed population mean, population standard deviation. Create a problem a assume an alternative hypothesis as your sample mean. Create your own significance level and assumption to create a problem in each category.

Sample Computation for Measure of Central Tendency using the above Dataset:

Functionality

Q1	Q2	Q3
3.20	1.10	5.00

Mean:

$$\begin{aligned}\bar{x} &= 3.20 + 1.10 + 5.00 \\ &= 9.30 / 3 \\ &= \mathbf{3.10}\end{aligned}$$

Median:

$$\begin{aligned}&1.10, 3.20, 5.00 \\ &= \mathbf{3.20}\end{aligned}$$

Shape Distribution:

Symmetrical (mean and media are almost equal)

Central Tendency:

Since it is symmetrical, CT will be the mean = **3.10**

Based on the CT, Functionality Category was evaluated as **Good**

***You will do all of these to each and every category in the survey. Do not copy the format of this computation. This is just a sample. Use your own way on how to do and show this in the documentation***