

Lab 2c - Statistical Analysis of a questionnaire using SPSS

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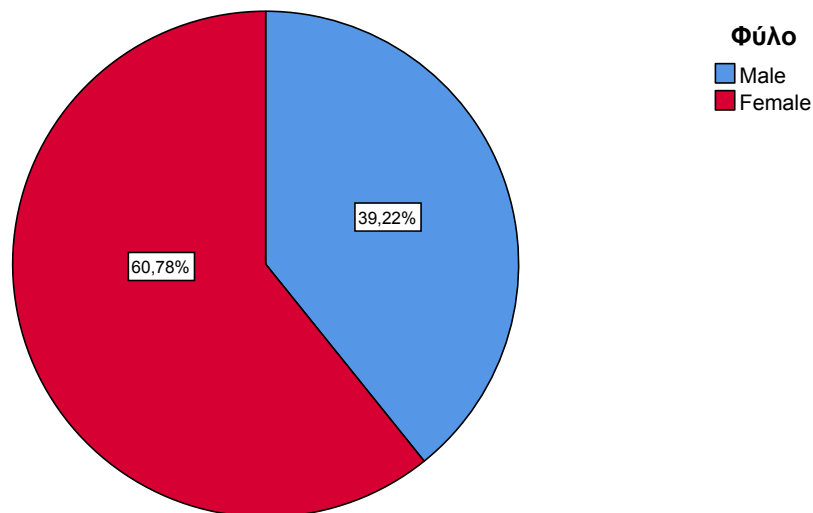
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1.Number of men and women .

Relative frequencies of the two categories in a Pie chart.

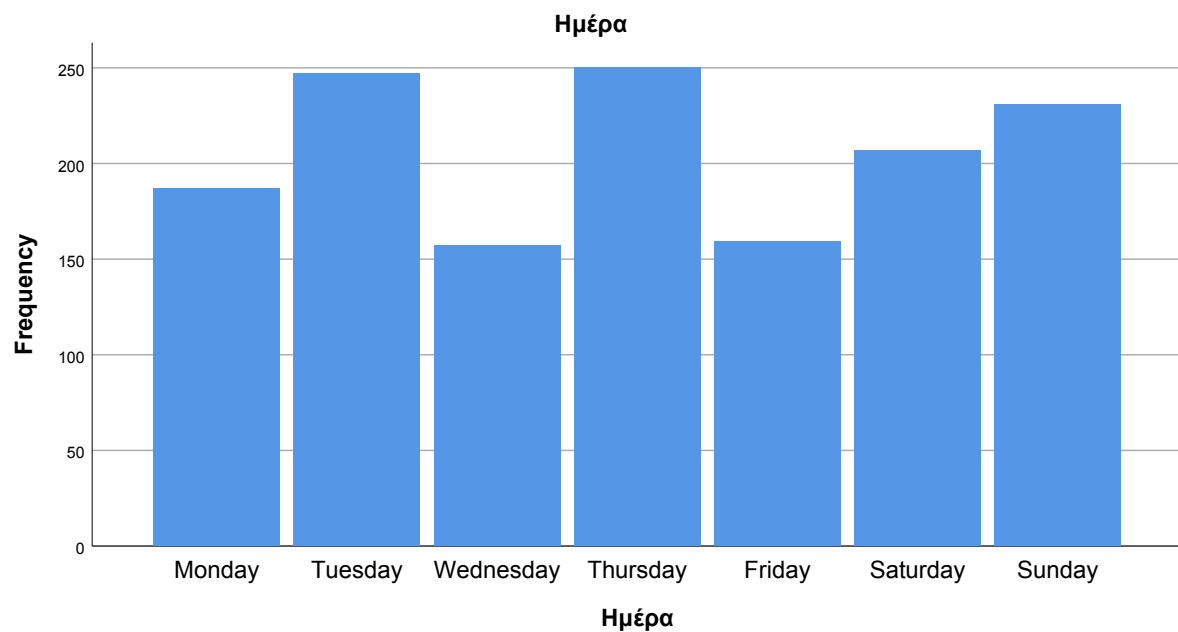
		Count	Column N %
Φύλο	Male	564	39,2%
	Female	874	60,8%

Pie Chart



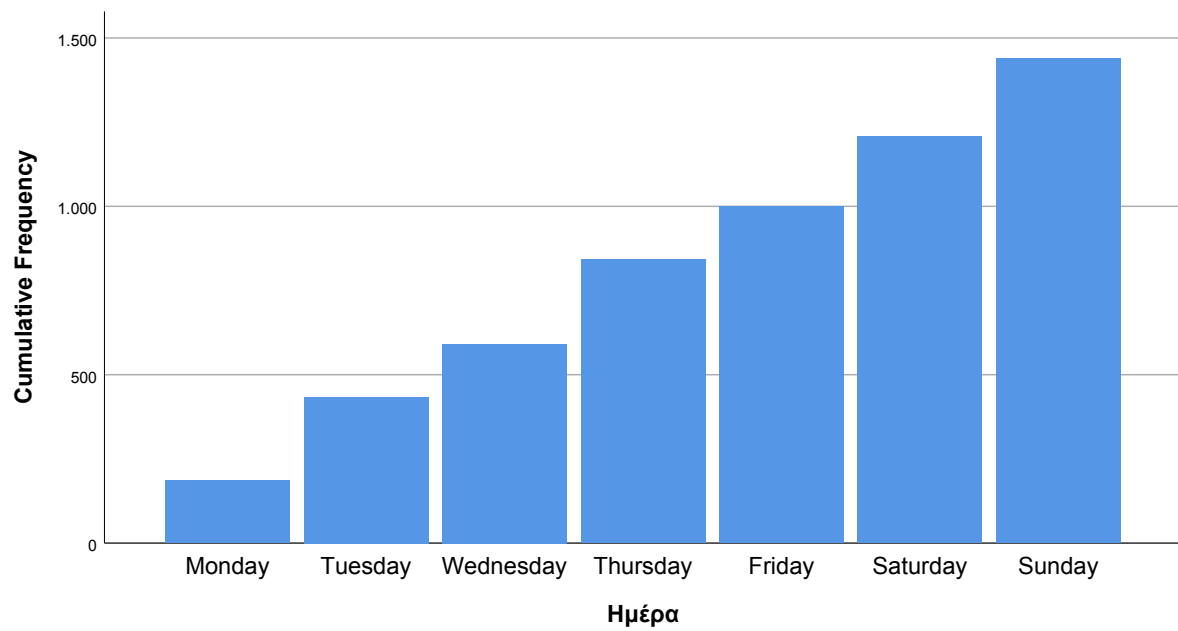
2. Relative and cumulative frequencies of questionnaires per day.

		Ημέρα			
		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Monday	187	13,0	13,0	13,0
	Tuesday	247	17,2	17,2	30,2
	Wednesday	157	10,9	10,9	41,1
	Thursday	250	17,4	17,4	58,5
	Friday	159	11,1	11,1	69,5
	Saturday	207	14,4	14,4	83,9
	Sunday	231	16,1	16,1	100,0
	Total	1438	100,0	100,0	



Cumulative Frequencies Graph

Cumulative Frequences Of Questionnaires Per Day						
1	2	3	4	5	6	7
Monday	Tuesday	Wednesday	Thursday	Friday	Saturday	Sunday
187	434	591	841	1000	1207	1438



3. Mean degree of satisfaction per gender

Case Summaries

Mean

Φύλο	Ευχαρίστηση
Male	3,07
Female	3,03

4. Mean degree of satisfaction per gender and age.

Case Summaries

Mean		
Φύλο	Ηλικία	Ευχαρίστηση
Male	18	3,29
	19	3,16
	20	2,96
	21	2,97
	22	2,95
	23	3,30
	24	2,43
	25	3,00
	26	2,00
	27	1,50
	Total	3,07
Female	18	3,08
	19	3,10
	20	2,97
	21	3,05
	22	3,06
	23	3,09
	24	1,67
	25	2,00
	26	2,00
	27	5,00
	Total	3,03
Total	18	3,16
	19	3,13
	20	2,97
	21	3,01
	22	3,02
	23	3,18
	24	2,20
	25	2,67
	26	2,00
	27	2,67
	Total	3,05

5. Mean degree of satisfaction per age and day.

Case Summaries

Mean		
Ηλικία	Ημέρα	Ευχαρίστηση
18	Monday	2,76
	Tuesday	3,31
	Wednesday	3,04
	Thursday	3,28
	Friday	3,29
	Saturday	3,40
	Sunday	3,03
	Total	3,16
19	Monday	3,24
	Tuesday	3,11
	Wednesday	3,46
	Thursday	2,76
	Friday	2,95
	Saturday	3,27
	Sunday	3,17
	Total	3,13
20	Monday	3,35
	Tuesday	2,88
	Wednesday	3,16
	Thursday	2,94
	Friday	2,96
	Saturday	2,89
	Sunday	2,79
	Total	2,97
21	Monday	3,07
	Tuesday	3,14
	Wednesday	2,56
	Thursday	3,06
	Friday	3,28
	Saturday	2,50
	Sunday	3,14
	Total	3,01
22	Monday	3,26
	Tuesday	2,96

Case Summaries

Mean

Ηλικία	Ημέρα	Ευχαρίστηση
	Wednesday	3,29
	Thursday	2,85
	Friday	3,16
	Saturday	2,36
	Sunday	3,17
	Total	3,02
23	Monday	3,29
	Tuesday	3,12
	Wednesday	2,94
	Thursday	3,07
	Friday	3,19
	Saturday	3,60
	Sunday	3,00
	Total	3,18
24	Monday	1,00
	Tuesday	1,00
	Wednesday	4,00
	Thursday	1,50
	Saturday	3,50
	Sunday	1,00
	Total	2,20
25	Monday	3,00
	Friday	2,00
	Saturday	3,00
	Total	2,67
26	Thursday	2,00
	Sunday	2,00
	Total	2,00
27	Wednesday	1,00
	Thursday	5,00
	Sunday	2,00
	Total	2,67
Total	Monday	3,16
	Tuesday	3,05
	Wednesday	3,12
	Thursday	2,98
	Friday	3,10
	Saturday	3,01

Case Summaries

Mean

Ηλικία	Ημέρα	Ευχαρίστηση
	Sunday	2,97
	Total	3,05

6. Mean degree of satisfaction per age and gender.

Case Summaries

Mean

Ηλικία	Φύλο	Ευχαρίστηση
18	Male	3,29
	Female	3,08
	Total	3,16
19	Male	3,16
	Female	3,10
	Total	3,13
20	Male	2,96
	Female	2,97
	Total	2,97
21	Male	2,97
	Female	3,05
	Total	3,01
22	Male	2,95
	Female	3,06
	Total	3,02
23	Male	3,30
	Female	3,09
	Total	3,18
24	Male	2,43
	Female	1,67
	Total	2,20
25	Male	3,00
	Female	2,00
	Total	2,67
26	Male	2,00
	Female	2,00
	Total	2,00

Case Summaries

Mean

Ηλικία	Φύλο	Ευχαρίστηση
27	Male	1,50
	Female	5,00
	Total	2,67
Total	Male	3,07
	Female	3,03
	Total	3,05

7. Number of men with degree of satisfaction equal to 4 or 5 on Monday or Friday.

		Male Ημέρα		
		Monday Count	Friday Count	Total Count
Ευχαρίστηση	4	16	10	26
	5	12	21	33
	Total	28	31	59

8. Percentage of women that have satisfaction score 1,2 or 3 on Saturday or Sunday

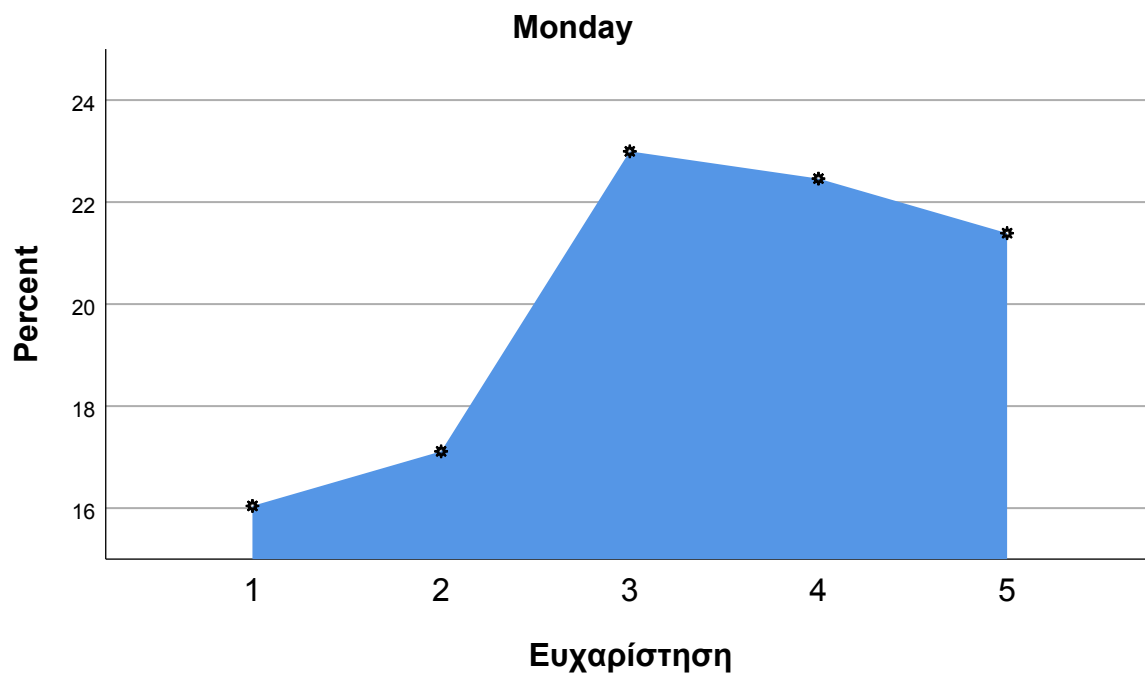
		Φύλο Female Ημέρα		
		Saturday Count	Sunday Count	Total Count
Ευχαρίστηση	1	34	30	64
	2	18	23	41
	3	34	33	67
	Total	86	86	172

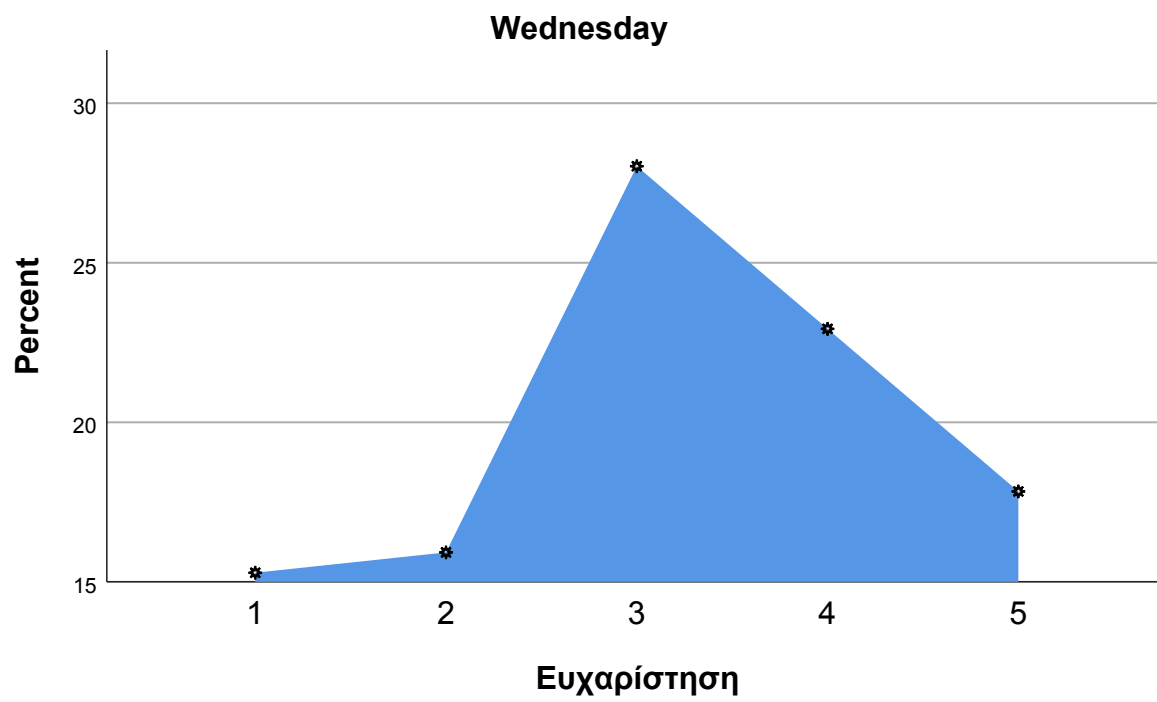
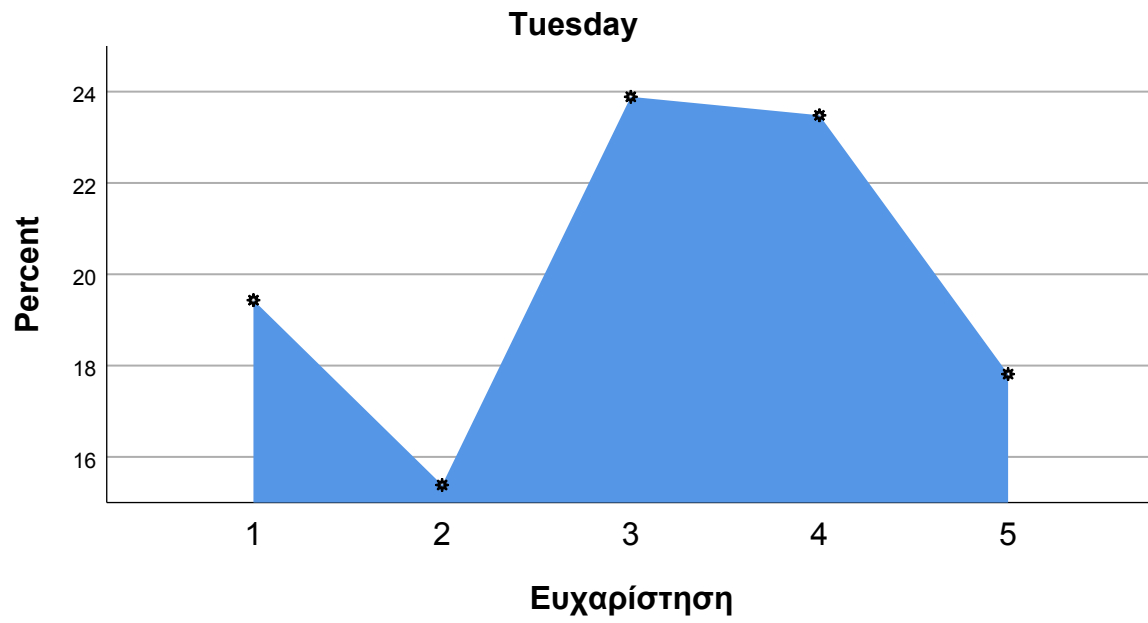
Number of women that have satisfaction score 1,2 or 3 on Saturday or Sunday: 172 out of 874 total
 Percentage: 19.68%

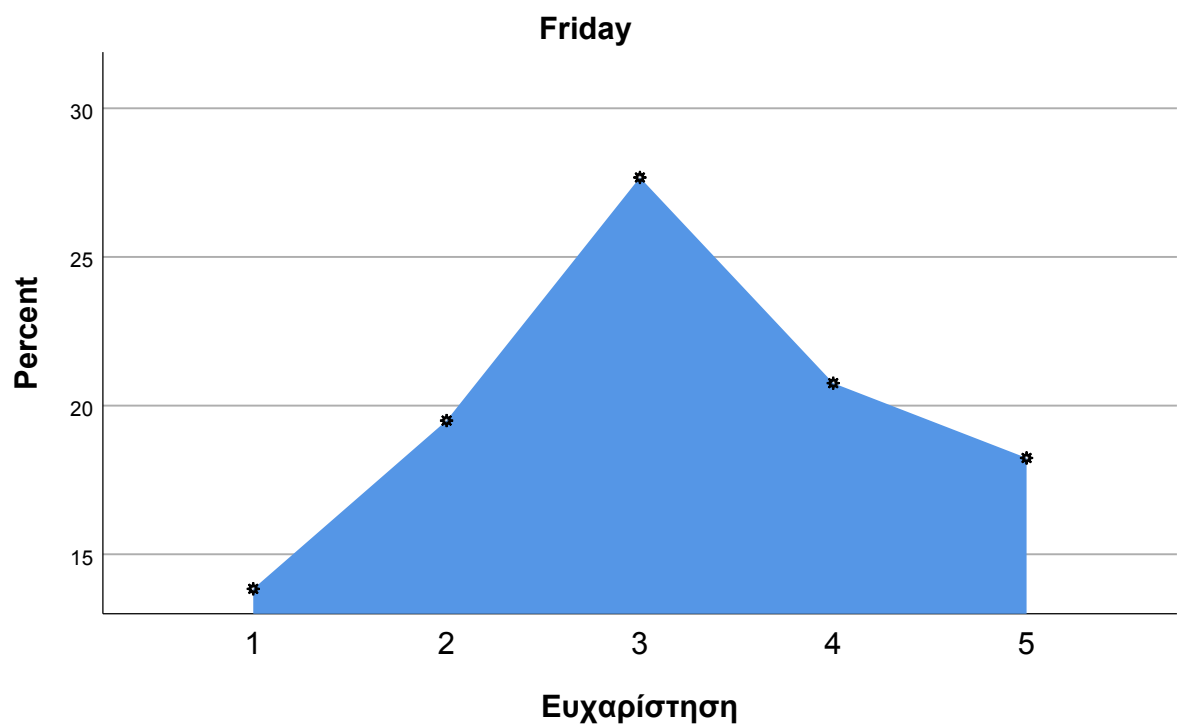
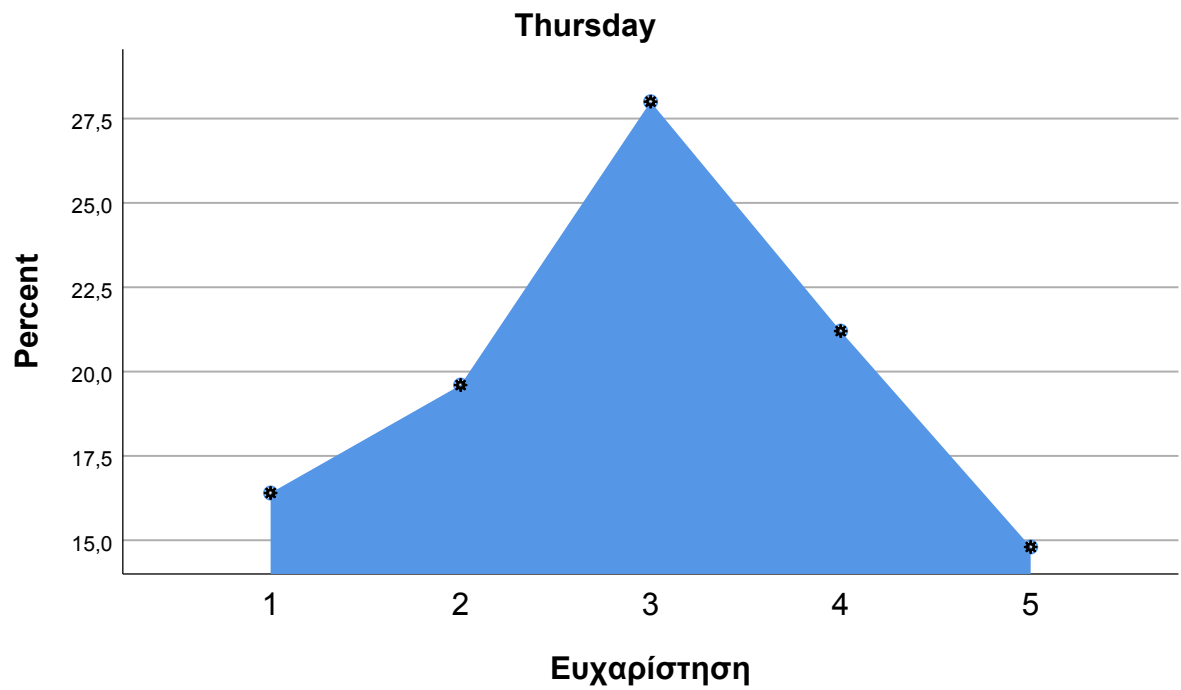
9. Relative and Accumulated Frequencies of Satisfaction per Day

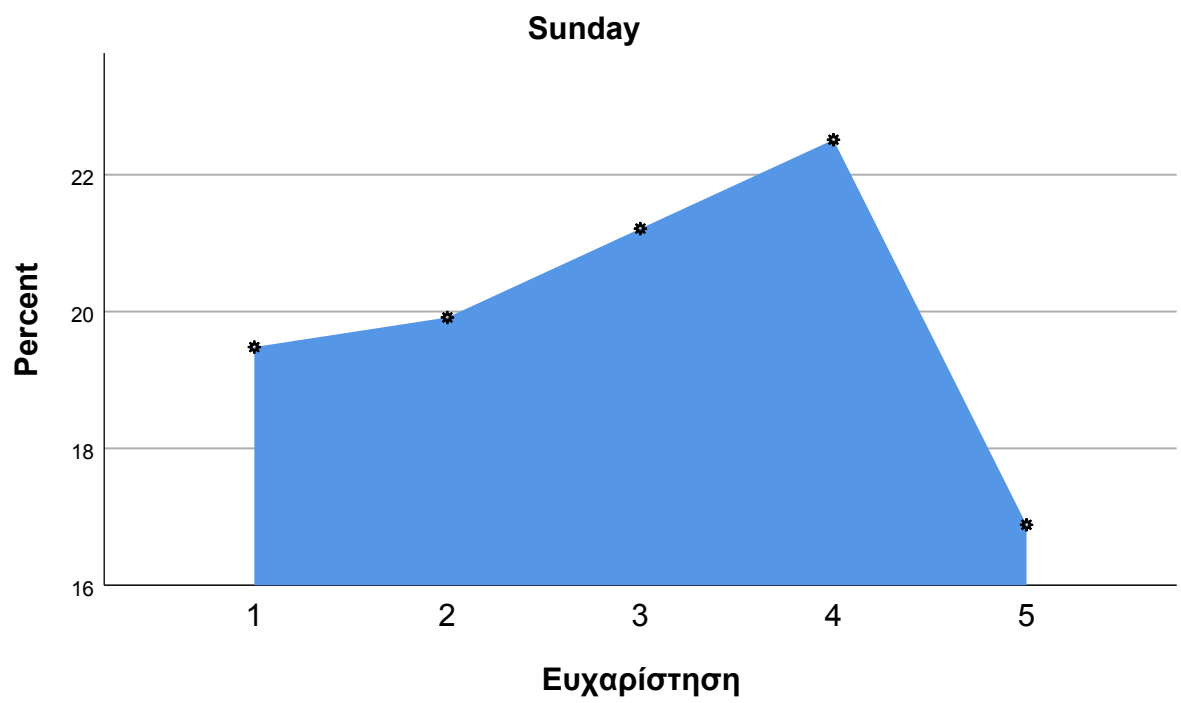
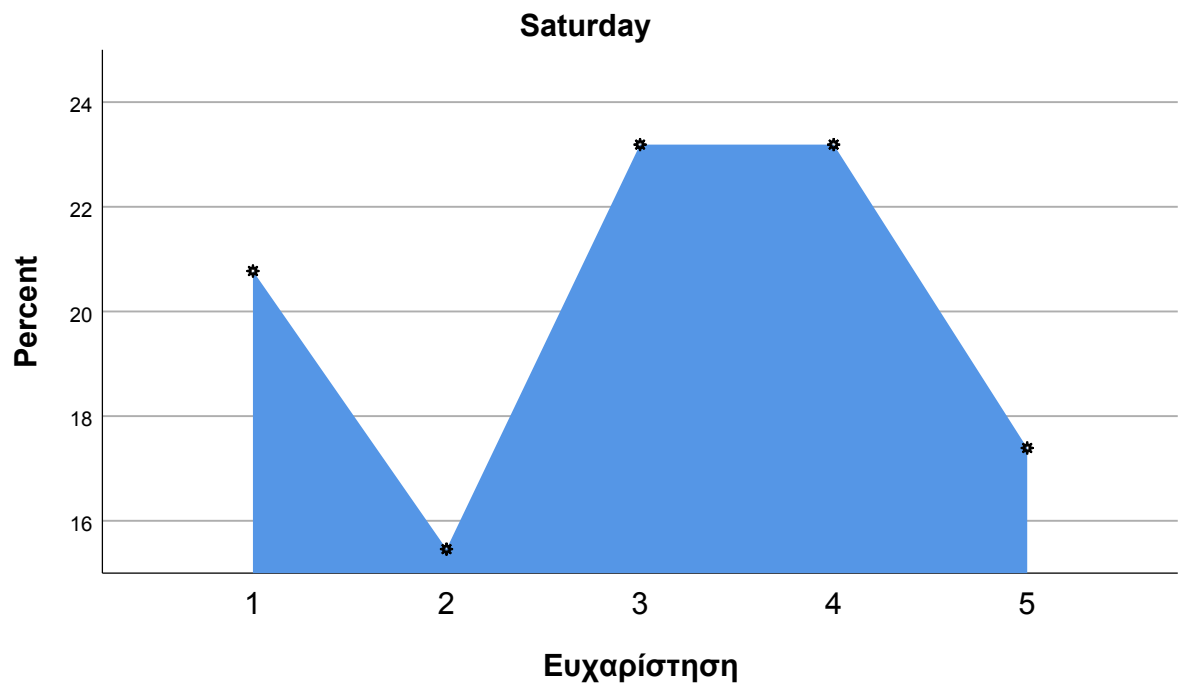
Relative frequencies of Satisfaction Per day

		Ευχαρίστηση				
		1	2	3	4	5
		Row N %	Row N %	Row N %	Row N %	Row N %
Ημέρα	Monday	16,0%	17,1%	23,0%	22,5%	21,4%
	Tuesday	19,4%	15,4%	23,9%	23,5%	17,8%
	Wednesday	15,3%	15,9%	28,0%	22,9%	17,8%
	Thursday	16,4%	19,6%	28,0%	21,2%	14,8%
	Friday	13,8%	19,5%	27,7%	20,8%	18,2%
	Saturday	20,8%	15,5%	23,2%	23,2%	17,4%
	Sunday	19,5%	19,9%	21,2%	22,5%	16,9%



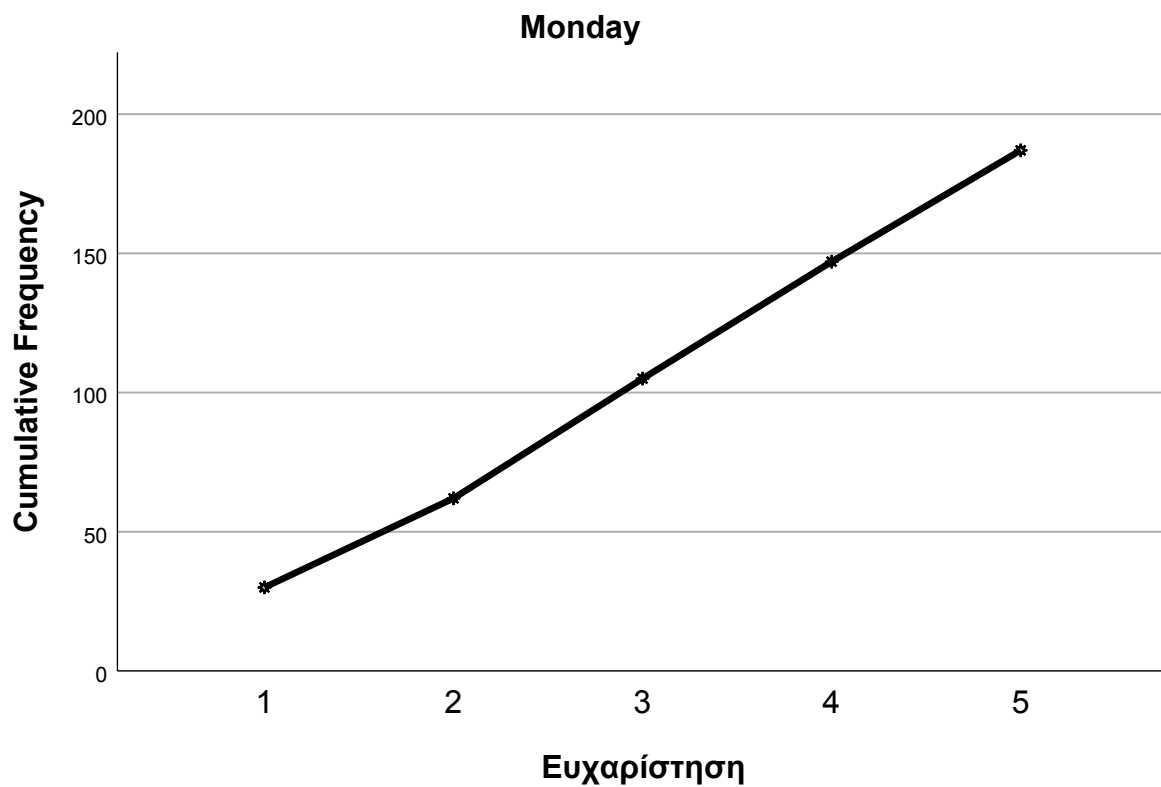


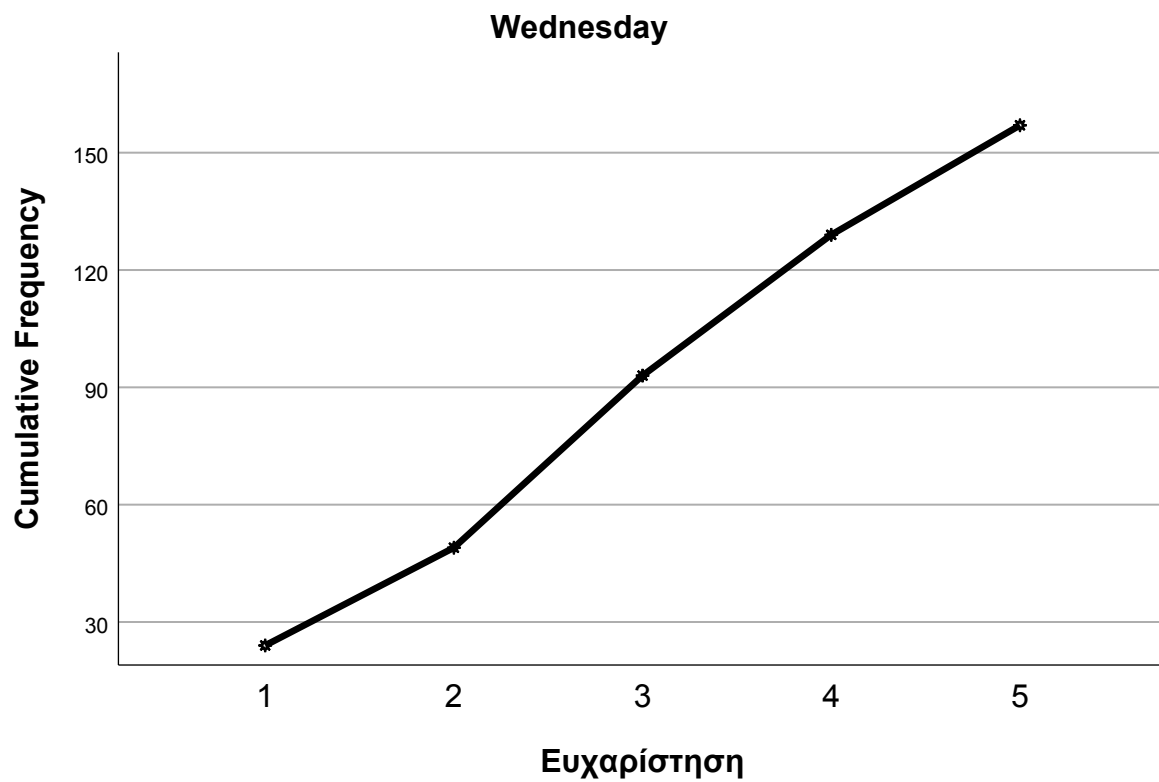
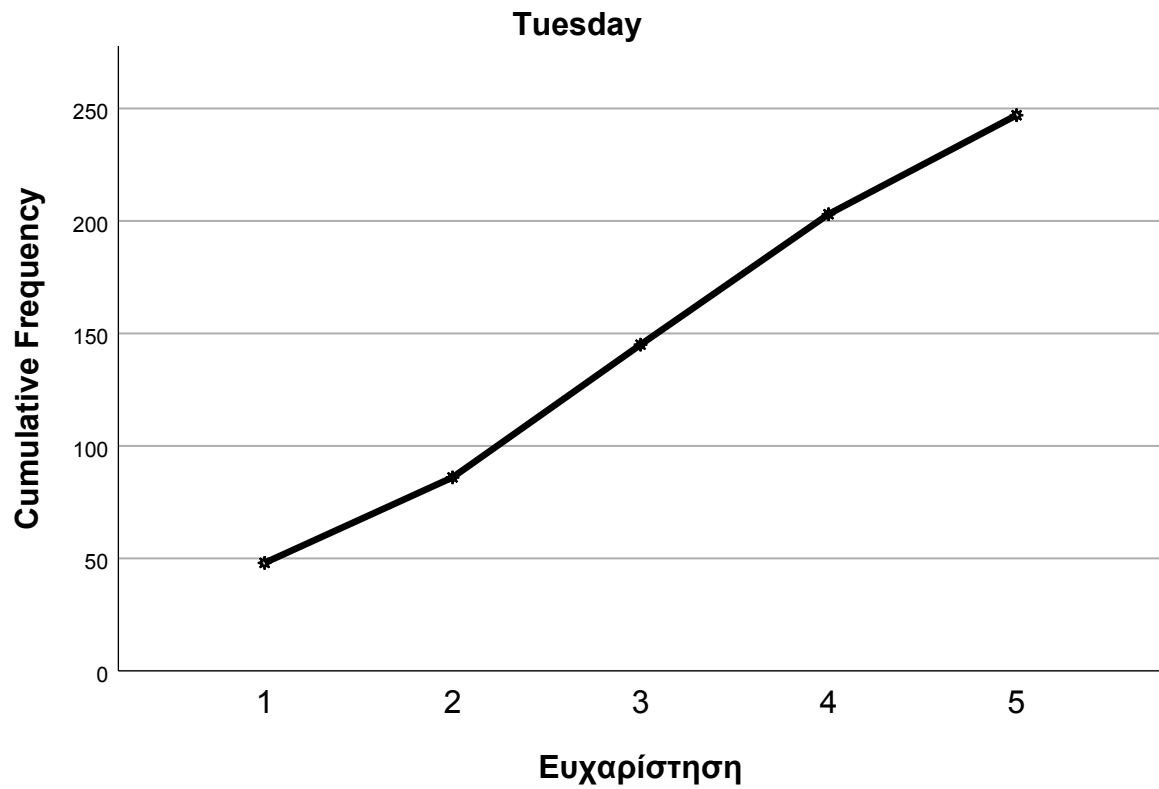


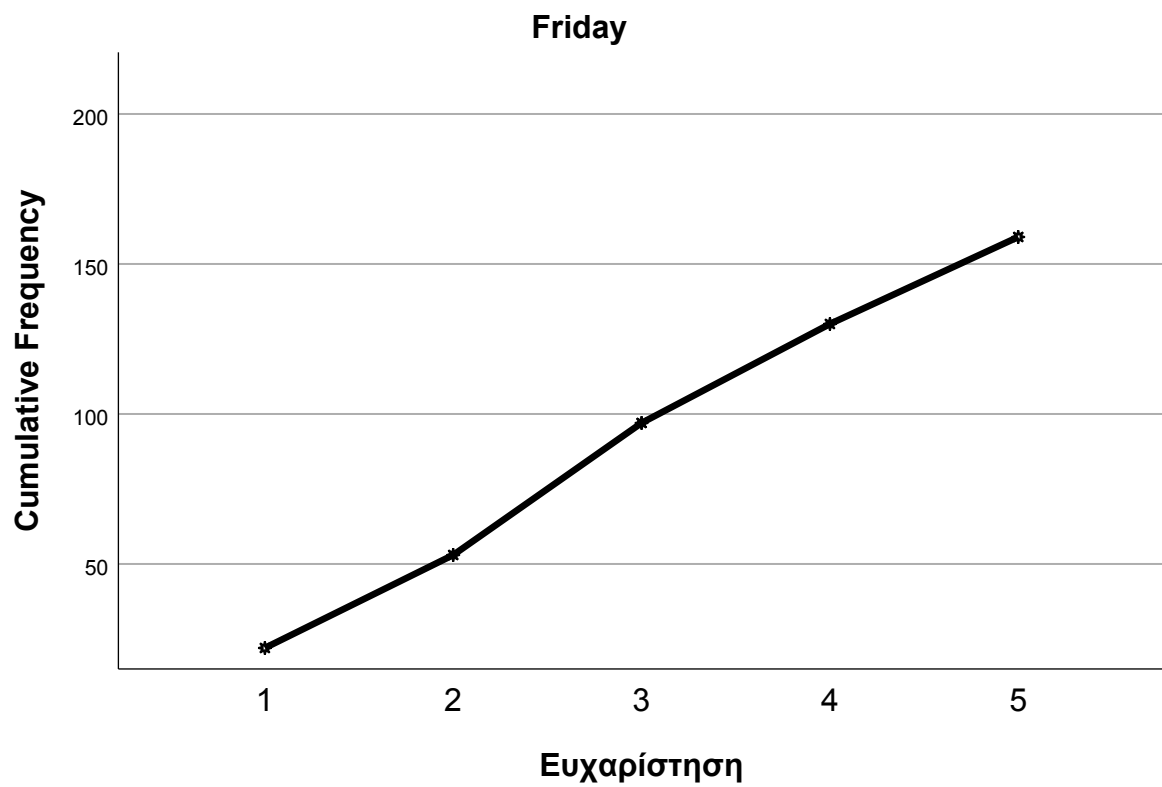
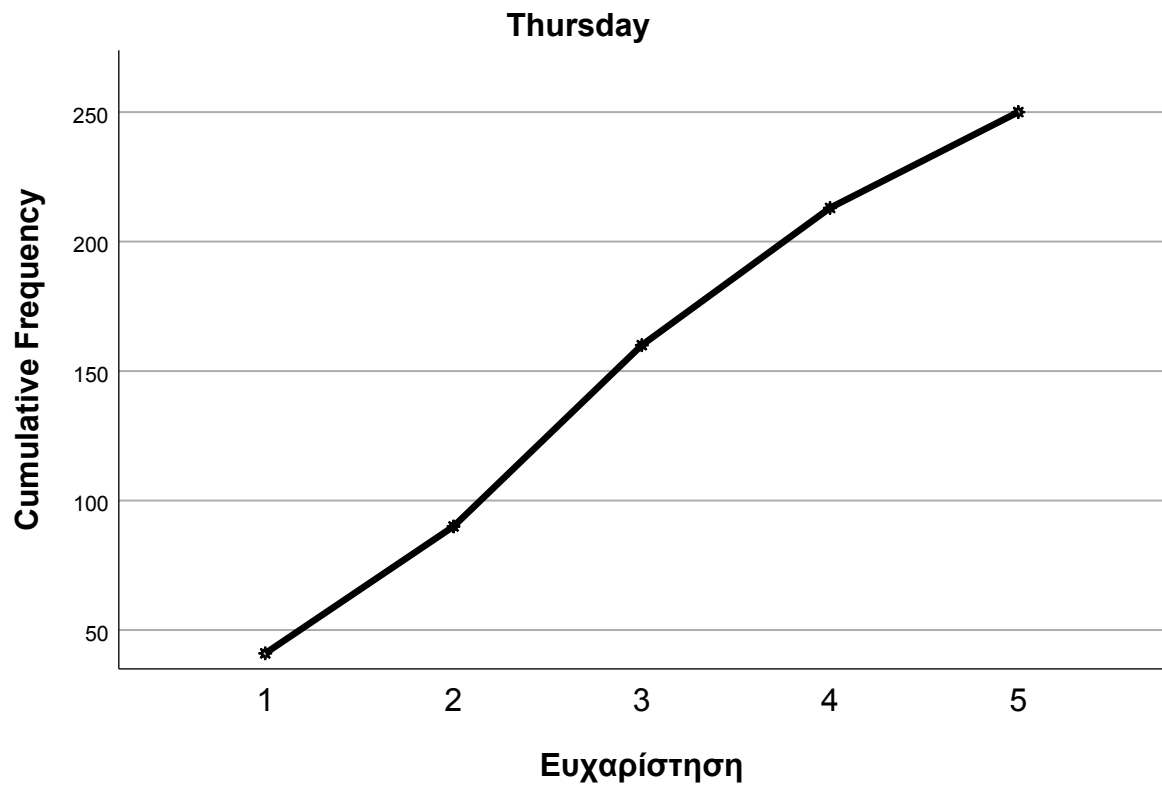


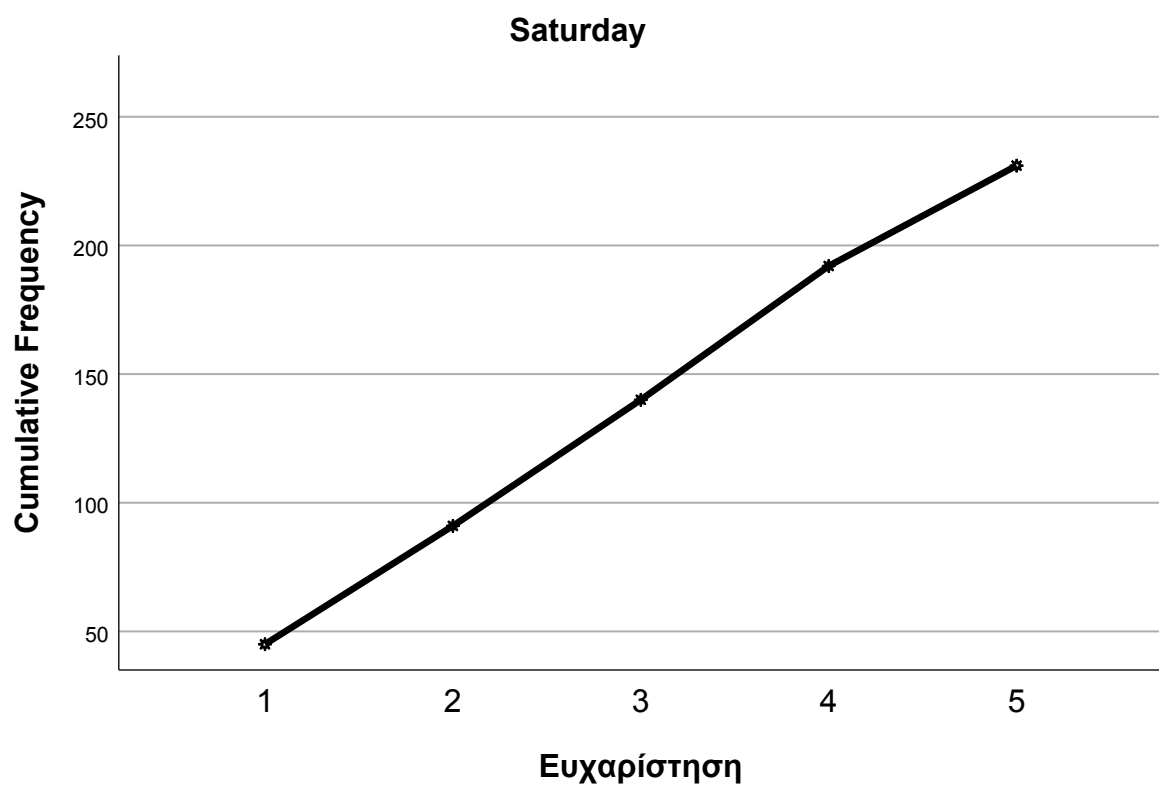
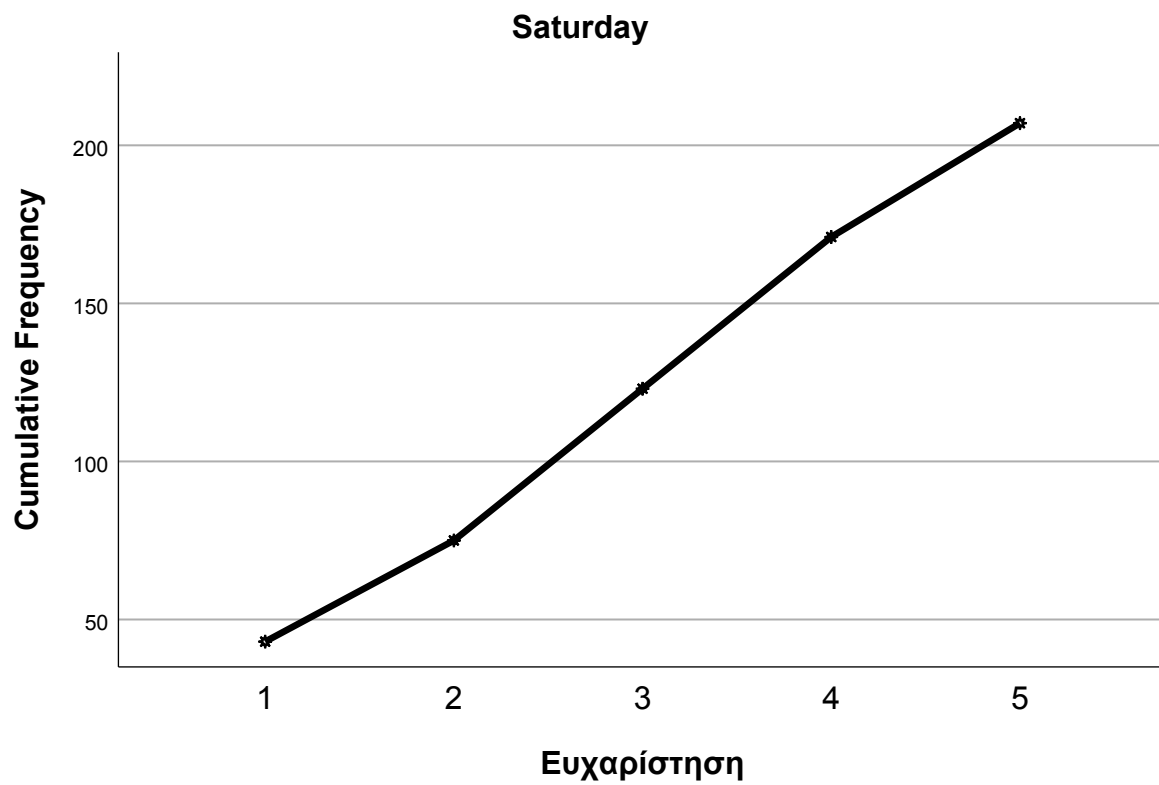
Cumulative frequencies of Satisfaction per day

		Ευχαρίστηση				
		1 Count	2 Count	3 Count	4 Count	5 Count
Ημέρα	Monday	30	62	105	147	187
	Tuesday	48	86	145	203	247
	Wednesday	24	49	93	129	157
	Thursday	41	90	160	213	250
	Friday	22	53	97	130	159
	Saturday	43	75	123	171	207
	Sunday	45	91	140	192	231









10. Mean Satisfaction Score of women in Thursdays

Φύλο		
Female		
Ημέρα		
Thursday		
Count		
Ευχαρίστηση	1	18
	2	35
	3	46
	4	33
	5	23
	Total	155

$$\text{Mean} = ((18 \cdot 1) + (35 \cdot 2) + (46 \cdot 3) + (33 \cdot 4) + (23 \cdot 5)) / 155 = 473 / 155 = 3.05161$$

11. Relative Frequencies of Satisfaction on Sundays

Ημέρα		
Sunday		
Count		
Ευχαρίστηση	1	45
	2	46
	3	49
	4	52
	5	39
	Total	231

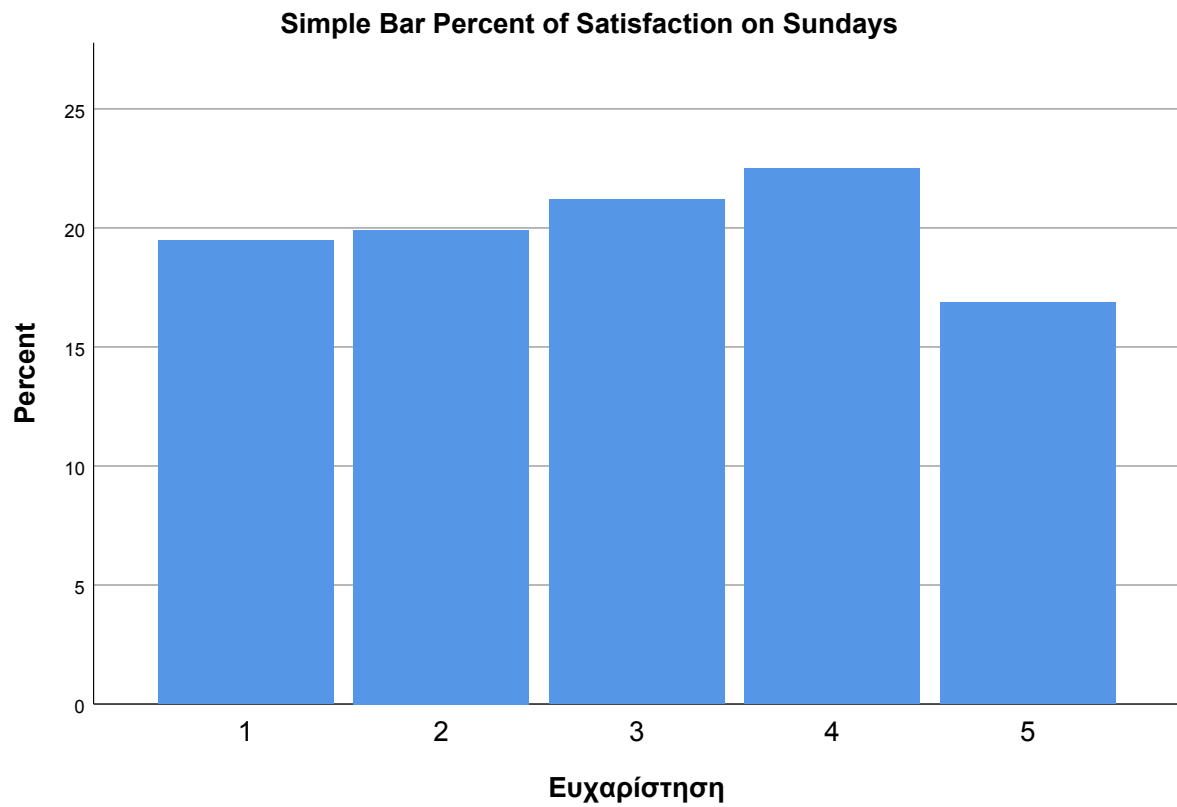
$$\text{RF } 1 = 45 / 231 = 0.1948$$

$$\text{RF } 2 = 46 / 231 = 0.1991$$

$$\text{RF } 3 = 49 / 231 = 0.2121$$

$$\text{RF } 4 = 52 / 231 = 0.2251$$

$$\text{RF } 5 = 39 / 231 = 0.1688$$



12. Days that the mean degree of satisfaction of women is greater than men

Men_Mean_Satisfaction

Ημέρα	Monday	3,0294
	Tuesday	2,9906
	Wednesday	3,1406
	Thursday	2,8737
	Friday	3,3944
	Saturday	3,2174
	Sunday	2,9780

Women_Mean_Satisfaction

Ημέρα	Monday	3,2353
	Tuesday	3,0922
	Wednesday	3,1075
	Thursday	3,0516
	Friday	2,8636
	Saturday	2,9058
	Sunday	2,9714

We calculate the differences of the above tables: Women_Mean_Satisfaction - Men_Mean_Satisfaction.

If the result is positive this means that the mean degree of satisfaction of women is greater than men.

Monday : 0.2058 > 0

Tuesday : 0.1016 > 0

Wednesday:-0.0330

Thursday : 0.1779 > 0

Friday :-0.5307

Saturday :-0.3115

Sunday :-0.0065

The days that the mean degree of satisfaction of women is greater than men are:

Monday, Tuesday, Thursday