Introduction to Frequency and Basic Statistics
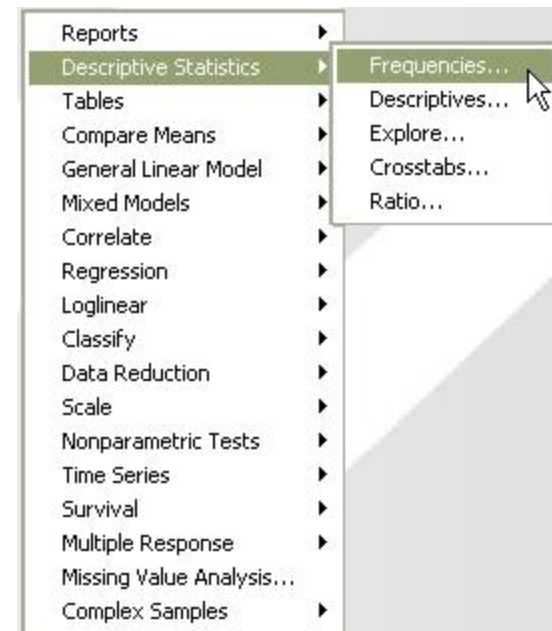
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Objectives

Participants to be able to:

1. Run frequency procedure

2. Extract relevant information to be presented in appropriate presentation mode

3. Prepare tables and charts
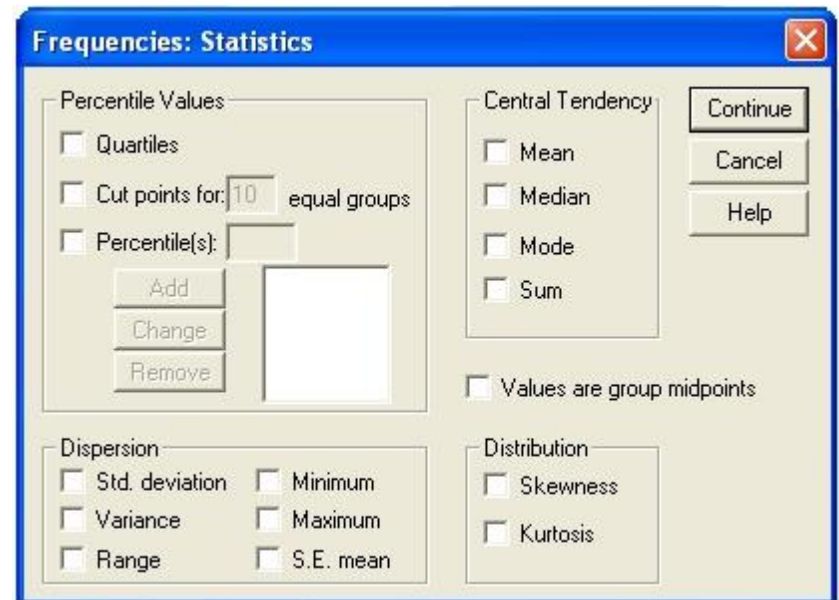
Frequencies

Frequency is an SPSS procedure to obtain:

– Frequency distribution

– Percentage distribution

– Basic statistics

Reports	▶	
Descriptive Statistics	▶	Frequencies...
Tables	▶	Descriptives...
Compare Means	▶	Explore...
General Linear Model	▶	Crosstabs...
Mixed Models	▶	Ratio...
Correlate	▶	
Regression	▶	
Loglinear	▶	
Classify	▶	
Data Reduction	▶	
Scale	▶	
Nonparametric Tests	▶	
Time Series	▶	
Survival	▶	
Multiple Response	▶	
Missing Value Analysis...		
Complex Samples	▶	

Basic Statistics

Statistics option in Frequency procedure provides the following statistics:

- Percentile Values

- Central Tendency

- Dispersion

- Distribution

Frequencies: Statistics

Percentile Values
- ☐ Quartiles
- ☐ Cut points for: 10 equal groups
- ☐ Percentile(s): [ ]
  - Add
  - Change
  - Remove

Central Tendency
- ☐ Mean
- ☐ Median
- ☐ Mode
- ☐ Sum

- ☐ Values are group midpoints

Dispersion
- ☐ Std. deviation
- ☐ Variance
- ☐ Range
- ☐ Minimum
- ☐ Maximum
- ☐ S.E. mean

Distribution
- ☐ Skewness
- ☐ Kurtosis

- Continue
- Cancel
- Help

In this example, you will be using the Practice Data. Run the Frequencies procedure, extract and present the results in the given tables.

1. Run Frequencies for Gender (X1), Marital status (X3) dan Job Category (X4)

2. Run Frequencies for Age (X2), Tenure (X5), Job Commitment (X6) and Job Performance (Y). Request for Mean and Std. deviation

Frequencies: X1, X3 and X4

File   Edit   View   Data   Transform   Insert   Format   Analyze   Graphs   Utilities   Add-ons   Window   Help

- Output
  - Frequencies
    - Title
    - Notes
    - Statistics
    - Frequency Table
      - Title
      - X1
      - X3
      - X4

Frequency Table

X1

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	1.00	4	40.0	40.0	40.0
	2.00	6	60.0	60.0	100.0
	Total	10	100.0	100.0	

X3

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	1.00	7	70.0	70.0	70.0
	2.00	3	30.0	30.0	100.0
	Total	10	100.0	100.0	

SPSS Processor is ready

Frequencies: X2, X5 and Y

File Edit View Data Transform Insert Format Analyze Graphs Utilities Add-ons Window Help

- Output
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      - X3
      - X4
  - Frequencies
    - Title
    - Notes
    - Statistics
    - Frequency Table
      - Title
      - X2
      - X5
      - Y

Statistics

		X2	X5	Y
N	Valid	10	10	10
	Missing	0	0	0
Mean		33.1000	2.0000	1.5000
Std. Deviation		6.93542	1.76383	.97183
Minimum		23.00	.00	.00
Maximum		42.00	5.00	3.00

Frequency Table

X2

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	23.00	1	10.0	10.0	10.0
	24.00	1	10.0	10.0	20.0
	25.00	1	10.0	10.0	30.0
	31.00	1	10.0	10.0	40.0

SPSS Processor is ready

Table 1:   Gender, Marital Status and Job Categories

Variables	Freq	%
Gender		
Male		
Female		
Marital Status		
Married		
Widowed		
Bachelor		
Job Categories		
Support		
Clerical		
Administrator		

Table 2:   Age, and Tenure

Variable	Freq	%	Mean	SD
Age (years)			——	——
< 30	——	——		
30 – 40	——	——		
> 40	——	——		
Tenure (years)			——	——
1–3	——	——		
4–6	——	——		
>6	——	——		

Table 3:   Job Commitment and Performance

Variable	Freq	%	Mean	SD
Job Commitment			___	___
Low (1 – 3)	___	___		
Moderate (4 – 6)	___	___		
High (7 -- 9)	___	___		
Job Performance			___	___
Low (6 – 13)	___	___		
Moderate (14 – 22)	___	___		
High (23 – 30)	___	___		

Exercise

Use the QWL Data and run Frequencies for the following variables and present the results in the given tables.

1. Frequencies for Marital status (X3) Job category (X4)

2. Run Frequencies for Peer Support (X7), Attitude, and Quality of Work Life (QWL). Request for Mean, Std. deviation, Minimum and Maximum

Table 4:   Marital status and Job Categories

Variables	Freq	%
Marital Status		
Married	⎯⎯	⎯⎯
Divorced	⎯⎯	⎯⎯
Bachelor	⎯⎯	⎯⎯
Job Categories		
Support	⎯⎯	⎯⎯
Administrator	⎯⎯	⎯⎯
Management	⎯⎯	⎯⎯

Table 5:   Peer Support, Attitude and QWL

Variable	Freq	%	Mean	SD
Peer Support			___	___
Low (≤ 3)	___	___		
Moderate (4-6)	___	___		
High (> 6)	___	___		
Attitude			___	___
Low (1 - 2.33)	___	___		
Moderate (2.34 - 3.66)	___	___		
High (3.67 - 5)	___	___		
Quality of Work Life			___	___
Low (1 - 2.33)	___	___		
Moderate (2.34 - 3.66)	___	___		
High (3.67 - 5)	___	___		