

How can I properly understand the results obtained from crosstabs in SPSS?

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Crosstabs in SPSS are a statistical tool used to analyze the relationship between two categorical variables. The results obtained from crosstabs can provide valuable insights into the associations between the variables and help in understanding the underlying patterns and trends in the data. To properly understand the results, it is important to carefully examine the frequency tables, percentages, and statistical measures such as chi-square and p-values. Additionally, it is crucial to consider the research question, study design, and any potential confounding factors that may influence the results. With a thorough understanding of the crosstabs results, researchers can make informed decisions and draw meaningful conclusions from their data.

How do I interpret the results from crosstabs? | SPSS FAQ

It can be tricky to interpret the results from crosstabs in SPSS. Consider the example below. We have included row percentages, column percentages and cell percentages.

Anxiety * Tension Crosstabulation

			Tension		Total
			low	high	
Anxiety	low	Count	5	21	26
		% within Anxiety	19.2%	80.8%	100.0%
		% within Tension	25.0%	75.0%	54.2%
		% of Total	10.4%	43.8%	54.2%
Anxiety	high	Count	15	7	22
		% within Anxiety	68.2%	31.8%	100.0%
		% within Tension	75.0%	25.0%	45.8%
		% of Total	31.3%	14.6%	45.8%
Total		Count	20	28	48
		% within Anxiety	41.7%	58.3%	100.0%
		% within Tension	100.0%	100.0%	100.0%
		% of Total	41.7%	58.3%	100.0%

We have reproduced this table below, with footnotes

explaining the percentages.

Anxiety * Tension Crosstabulation

Tension	Total				
low	high				
Anxiety	low	Count	5	21	26
% within Anxiety	19.2% ¹	80.8%	100.0%		
% within Tension	25.0% ²	75.0%	54.2% ⁴		
% of Total	10.4% ³	43.8%	54.2% ⁴		
	high	Count	15	7	22
% within Anxiety	68.2%	31.8%	100.0%		
% within Tension	75.0%	25.0%	45.8%		
% of Total	31.3%	14.6%	45.8%		
Total		Count	20	28	48
% within Anxiety	41.7% ⁵	58.3%	100.0%		
% within Tension	100.0%	100.0%	100.0%		
% of Total	41.7% ⁵	58.3%	100.0%		

1. This is the row percentage (i.e., out of the 26 who are low anxiety,

5 are low tension, $5/26=19.2\%$).

2. This is the column percentage (i.e., out of the 20 who are low tension,

5 are low anxiety, $5/20=25\%$).

3. This is the cell percentage (i.e., out of all 48, 5 are low anxiety and low tension, $5/48=10.4\%$).

4. This is the overall row percentage (i.e., out of all 48 people, 26 were low anxiety, $26/48=54.2\%$).

5. This is the overall column percentage (i.e., out of all 48 people, 20 were low tension, $20/48=41.7\%$).

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