

## Dependent Variable, Independent Variable & Level of Measurement

An independent variable (IV) used to analyze the Afrobarometer data set is *Country by Region*, which is a nominal level of measurement. A dependent variable (DV) is *Q3b. Your present living conditions*, which is an ordinal level of measurement.

## Research Question, Null Hypothesis & Chi-square

The research question states, "What is the relationship between *Country by Region* (IV) and *Q3b. Your present living conditions* (DV)?" The null hypothesis states, "There is no relationship between *Country by Region* (IV) and *Q3b. Your present living conditions* (DV)." Correlational research designs allow researchers to examine relationships between variables. Specifically, Chi-square statistic allows researchers to examine the relationship between categorical (nominal & ordinal) variables (Frankfort-Nachmias, Leon-Guerrero, & Davis, 2020), like *Country by Region* & *Q3b. Your present living conditions*.

## SPSS Output

[https://class.waldenu.edu/webapps/discussionboard/do/message?action=list\\_messages&course\\_id=\\_16810844\\_1&forum\\_id=\\_8892265\\_1&discussio...](https://class.waldenu.edu/webapps/discussionboard/do/message?action=list_messages&course_id=_16810844_1&forum_id=_8892265_1&discussio...) 2/9

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Analysis of Afrobarometer suggests, *Country by Region* (IV) and *Q3b. Your present living conditions* (DV) are significantly related;  $\chi^2(12, N = 10272) = 366.34, p < .00$ . Therefore, because results are statistically significant, researchers can reject the null hypothesis, which states there is no relationship between *Country by Region* (IV) and *Q3b. Your present living conditions* (DV). The effect size for this finding, Cramer's V, was weak, .11

Country by region \* Q3b. Your present living conditions Crosstabulation

		Q3b. Your present living conditions						
			Very Bad	Fairly bad	Neither good nor bad	Fairly good	Very good	Total
Country by region	West Africa	Count	632	1130	766	1131	195	3854
		% within Country by region	16.4%	29.3%	19.9%	29.3%	5.1%	100.0%
	East Africa	Count	552	515	291	264	39	1661
		% within Country by region	33.2%	31.0%	17.5%	15.9%	2.3%	100.0%
	Southern Africa	Count	536	1130	757	986	158	3567
		% within Country by region	15.0%	31.7%	21.2%	27.6%	4.4%	100.0%
	North Africa	Count	227	305	311	303	44	1190
		% within Country by region	19.1%	25.6%	26.1%	25.5%	3.7%	100.0%
Total		Count	1947	3080	2125	2684	436	10272
		% within Country by region	19.0%	30.0%	20.7%	26.1%	4.2%	100.0%

## Chi-Square Tests

	Value	df	Asymptotic Significance (2-sided)
Pearson Chi-Square	366.338 <sup>a</sup>	12	.000
Likelihood Ratio	348.314	12	.000
Linear-by-Linear Association	.273	1	.601
N of Valid Cases	10272		

a. 0 cells (0.0%) have expected count less than 5. The minimum expected count is 50.51.

## Symmetric Measures