```
FREQUENCIES VARIABLES=Validation Step Accuracy Momentum epoch
  /ORDER=ANALYSIS.
```

Frequencies

Statistics

		Validation	Step	Accuracy	Momentum	epoch
N	Valid	408	408	408	408	408
	Missing	0	0	0	0	0

Frequency Table

Validation

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	invalid	210	51.5	51.5	51.5
	valid	198	48.5	48.5	100.0
	Total	408	100.0	100.0	

Step

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	.01	90	22.1	22.1	22.1
	.05	90	22.1	22.1	44.1
	.10	90	22.1	22.1	66.2
	.50	90	22.1	22.1	88.2
	.70	48	11.8	11.8	100.0
	Total	408	100.0	100.0	

Accuracy

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	.1	192	47.1	47.1	47.1
	.3	1	.2	.2	47.3
	.5	1	.2	.2	47.5
	.9	5	1.2	1.2	48.8
	1.0	209	51.2	51.2	100.0
	Total	408	100.0	100.0	

Momentum

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	.0	75	18.4	18.4	18.4
	.1	75	18.4	18.4	36.8
	.3	75	18.4	18.4	55.1
	.5	63	15.4	15.4	70.6
	.7	60	14.7	14.7	85.3
	.9	60	14.7	14.7	100.0
	Total	408	100.0	100.0	

epoch

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	1	28	6.9	6.9	6.9
	2	28	6.9	6.9	13.7
	3	28	6.9	6.9	20.6
	4	27	6.6	6.6	27.2
	5	27	6.6	6.6	33.8
	6	27	6.6	6.6	40.4
	7	27	6.6	6.6	47.1
	8	27	6.6	6.6	53.7
	9	27	6.6	6.6	60.3
	10	27	6.6	6.6	66.9
	11	27	6.6	6.6	73.5
	12	27	6.6	6.6	80.1
	13	27	6.6	6.6	86.8
	14	27	6.6	6.6	93.4
	15	27	6.6	6.6	100.0
	Total	408	100.0	100.0	

```
CROSSTABS
 /TABLES=Validation BY Step Momentum epoch
 /FORMAT=AVALUE TABLES
 /STATISTICS=CHISQ PHI
 /CELLS=COUNT EXPECTED ROW COLUMN
 /COUNT ROUND CELL.
```

Crosstabs

Case Processing Summary

	Cases					
	Valid		Missing		Total	
	N	Percent	N	Percent	N	Percent
Validation * Step	408	100.0%	0	0.0%	408	100.0%
Validation * Momentum	408	100.0%	0	0.0%	408	100.0%
Validation * epoch	408	100.0%	0	0.0%	408	100.0%

Validation * Step

Crosstab

			Step				
			.01	.05	.10	.50	.70
Validation	invalid	Count	90	90	30	0	0
		Expected Count	46.3	46.3	46.3	46.3	24.7
		% within Validation	42.9%	42.9%	14.3%	0.0%	0.0%
		% within Step	100.0%	100.0%	33.3%	0.0%	0.0%
	valid	Count	0	0	60	90	48
		Expected Count	43.7	43.7	43.7	43.7	23.3
		% within Validation	0.0%	0.0%	30.3%	45.5%	24.2%
		% within Step	0.0%	0.0%	66.7%	100.0%	100.0%
Total		Count	90	90	90	90	48
		Expected Count	90.0	90.0	90.0	90.0	48.0
		% within Validation	22.1%	22.1%	22.1%	22.1%	11.8%
		% within Step	100.0%	100.0%	100.0%	100.0%	100.0%

Crosstab

			Total
Validation	invalid	Count	210
		Expected Count	210.0
		% within Validation	100.0%
		% within Step	51.5%
	valid	Count	198
		Expected Count	198.0
		% within Validation	100.0%
		% within Step	48.5%
Total		Count	408
		Expected Count	408.0
		% within Validation	100.0%
		% within Step	100.0%

Chi-Square Tests

	Value	df	Asymptotic Significance (2-sided)
Pearson Chi-Square	327.931[a]	4	.000
Likelihood Ratio	450.683	4	.000
N of Valid Cases	408		

a. 0 cells (0.0%) have expected count less than 5. The minimum expected count is 23.29.

Symmetric Measures

		Value	Approximate Significance
Nominal by Nominal	Phi	.897	.000
	Cramer's V	.897	.000
N of Valid Cases		408	

Validation * Momentum

Crosstab

			Momentum				
			.0	.1	.3	.5	.7
Validation	invalid	Count	45	45	30	30	30
		Expected Count	38.6	38.6	38.6	32.4	30.9
		% within Validation	21.4%	21.4%	14.3%	14.3%	14.3%
		% within Momentum	60.0%	60.0%	40.0%	47.6%	50.0%
	valid	Count	30	30	45	33	30
		Expected Count	36.4	36.4	36.4	30.6	29.1
		% within Validation	15.2%	15.2%	22.7%	16.7%	15.2%
		% within Momentum	40.0%	40.0%	60.0%	52.4%	50.0%
Total		Count	75	75	75	63	60
		Expected Count	75.0	75.0	75.0	63.0	60.0
		% within Validation	18.4%	18.4%	18.4%	15.4%	14.7%
		% within Momentum	100.0%	100.0%	100.0%	100.0%	100.0%

Crosstab

			Momentu...	
			.9	Total
Validation	invalid	Count	30	210
		Expected Count	30.9	210.0
		% within Validation	14.3%	100.0%
		% within Momentum	50.0%	51.5%
	valid	Count	30	198
		Expected Count	29.1	198.0
		% within Validation	15.2%	100.0%
		% within Momentum	50.0%	48.5%
Total		Count	60	408
		Expected Count	60.0	408.0
		% within Validation	14.7%	100.0%
		% within Momentum	100.0%	100.0%

Chi-Square Tests

	Value	df	Asymptotic Significance (2-sided)
Pearson Chi-Square	8.798[a]	5	.117
Likelihood Ratio	8.851	5	.115
N of Valid Cases	408		

a. 0 cells (0.0%) have expected count less than 5. The minimum expected count is 29.12.

Symmetric Measures

		Value	Approximate Significance
Nominal by Nominal	Phi	.147	.117
	Cramer's V	.147	.117
N of Valid Cases		408	

Validation * epoch

Crosstab

			epoch				
			1	2	3	4	5
Validation	invalid	Count	14	14	14	14	14
		Expected Count	14.4	14.4	14.4	13.9	13.9
		% within Validation	6.7%	6.7%	6.7%	6.7%	6.7%
		% within epoch	50.0%	50.0%	50.0%	51.9%	51.9%
	valid	Count	14	14	14	13	13
		Expected Count	13.6	13.6	13.6	13.1	13.1
		% within Validation	7.1%	7.1%	7.1%	6.6%	6.6%
		% within epoch	50.0%	50.0%	50.0%	48.1%	48.1%
Total		Count	28	28	28	27	27
		Expected Count	28.0	28.0	28.0	27.0	27.0
		% within Validation	6.9%	6.9%	6.9%	6.6%	6.6%
		% within epoch	100.0%	100.0%	100.0%	100.0%	100.0%

Crosstab

			epoch				
			6	7	8	9	10
Validation	invalid	Count	14	14	14	14	14
		Expected Count	13.9	13.9	13.9	13.9	13.9
		% within Validation	6.7%	6.7%	6.7%	6.7%	6.7%
		% within epoch	51.9%	51.9%	51.9%	51.9%	51.9%
	valid	Count	13	13	13	13	13
		Expected Count	13.1	13.1	13.1	13.1	13.1
		% within Validation	6.6%	6.6%	6.6%	6.6%	6.6%
		% within epoch	48.1%	48.1%	48.1%	48.1%	48.1%
Total		Count	27	27	27	27	27
		Expected Count	27.0	27.0	27.0	27.0	27.0
		% within Validation	6.6%	6.6%	6.6%	6.6%	6.6%
		% within epoch	100.0%	100.0%	100.0%	100.0%	100.0%

Crosstab

			epoch				
			11	12	13	14	15
Validation	invalid	Count	14	14	14	14	14
		Expected Count	13.9	13.9	13.9	13.9	13.9
		% within Validation	6.7%	6.7%	6.7%	6.7%	6.7%
		% within epoch	51.9%	51.9%	51.9%	51.9%	51.9%
	valid	Count	13	13	13	13	13
		Expected Count	13.1	13.1	13.1	13.1	13.1
		% within Validation	6.6%	6.6%	6.6%	6.6%	6.6%
		% within epoch	48.1%	48.1%	48.1%	48.1%	48.1%
Total		Count	27	27	27	27	27
		Expected Count	27.0	27.0	27.0	27.0	27.0
		% within Validation	6.6%	6.6%	6.6%	6.6%	6.6%
		% within epoch	100.0%	100.0%	100.0%	100.0%	100.0%

Crosstab

			Total
Validation	invalid	Count	210
		Expected Count	210.0
		% within Validation	100.0%
		% within epoch	51.5%
	valid	Count	198
		Expected Count	198.0
		% within Validation	100.0%
		% within epoch	48.5%
Total		Count	408
		Expected Count	408.0
		% within Validation	100.0%
		% within epoch	100.0%

Chi-Square Tests

	Value	df	Asymptotic Significance (2-sided)
Pearson Chi-Square	.092[a]	14	1.000
Likelihood Ratio	.092	14	1.000
N of Valid Cases	408		

a. 0 cells (0.0%) have expected count less than 5. The minimum expected count is 13.10.

Symmetric Measures

		Value	Approximate Significance
Nominal by Nominal	Phi	.015	1.000
	Cramer's V	.015	1.000
N of Valid Cases		408	

Correlations

[DataSet1] /home/shaun/convolutional neural network.sav

Correlations

		Accuracy	Step
Accuracy	Pearson Correlation	1	-.764[**]
	Sig. (2-tailed)		.000
	N	408	408
Step	Pearson Correlation	-.764[**]	1
	Sig. (2-tailed)	.000	
	N	408	408

**. Correlation is significant at the 0.01 level (2-tailed).

```
NONPAR CORR
 /VARIABLES=Accuracy Step
 /PRINT=SPEARMAN TWOTAIL NOSIG
 /MISSING=PAIRWISE.
```

Nonparametric Correlations

Correlations

			Accuracy	Step
Spearman's rho	Accuracy	Correlation Coefficient	1.000	-.619[**]
		Sig. (2-tailed)	.	.000
		N	408	408
	Step	Correlation Coefficient	-.619[**]	1.000
		Sig. (2-tailed)	.000	.
		N	408	408

**. Correlation is significant at the 0.01 level (2-tailed).