# Oneway

[DataSet5]

#### **Descriptives**

				escriptives		
						95% Confidence Interval for Mean
		N	Mean	Std. Deviation	Std. Error	Lower Bound
good	content	85	3,68	1,049	,114	3,46
	random	83	3,49	,980	,108	3,28
	sentiment	82	3,90	,911	,101	3,70
	topics	88	3,98	,830	,088	3,80
	Total	338	3,77	,960	,052	3,66
interesting	content	85	3,51	1,109	,120	3,27
	random	83	3,39	1,113	,122	3,14
	sentiment	82	3,91	,932	,103	3,71
	topics	88	3,90	,817	,087	3,72
	Total	338	3,68	1,022	,056	3,57
relevant	content	85	3,48	1,031	,112	3,26
	random	83	3,28	1,051	,115	3,05
	sentiment	82	3,90	,897	,099	3,71
	topics	88	3,80	,949	,101	3,59
	Total	338	3,62	1,010	,055	3,51
valuable	content	85	3,46	1,064	,115	3,23
	random	83	3,34	1,027	,113	3,11
	sentiment	82	3,85	,918	,101	3,65
	topics	88	3,92	,731	,078	3,77
	Total	338	3,64	,970	,053	3,54

### **Descriptives**

		95% Confidence Interval for Mean		
		Upper Bound	Minimum	Maximum
good	content	3,91	1	5
	random	3,71	1	5
	sentiment	4,10	1	5
	topics	4,15	2	5
	Total	3,87	1	5
interesting	content	3,75	1	5
	random	3,63	1	5
	sentiment	4,12	1	5
	topics	4,07	2	5
	Total	3,79	1	5
relevant	content	3,70	1	5
	random	3,51	1	5
	sentiment	4,10	1	5
	topics	4,00	1	5
	Total	3,72	1	5
valuable	content	3,69	1	5
	random	3,56	1	5
	sentiment	4,06	1	5
	topics	4,08	2	5
	Total	3,75	1	5

# **Tests of Homogeneity of Variances**

				150	
		Levene Statistic	df1	df2	Sig.
good	Based on Mean	3,920	3	334	,009
	Based on Median	2,238	3	334	,084
	Based on Median and with adjusted df	2,238	3	316,813	,084
	Based on trimmed mean	4,091	3	334	,007
interesting	Based on Mean	8,577	3	334	<,001
	Based on Median	4,450	3	334	,004
	Based on Median and with adjusted df	4,450	3	306,652	,004
	Based on trimmed mean	9,156	3	334	<,001
relevant	Based on Mean	3,654	3	334	,013
	Based on Median	3,125	3	334	,026
	Based on Median and with adjusted df	3,125	3	320,489	,026
	Based on trimmed mean	4,470	3	334	,004
valuable	Based on Mean	6,609	3	334	<,001
	Based on Median	4,181	3	334	,006
	Based on Median and with adjusted df	4,181	3	300,141	,006
	Based on trimmed mean	6,681	3	334	<,001

### **ANOVA**

		Sum of Squares	df	Mean Square	F	Sig.
good	Between Groups	12,191	3	4,064	4,549	,004
	Within Groups	298,345	334	,893		
	Total	310,536	337			
interesting	Between Groups	18,457	3	6,152	6,164	<,001
	Within Groups	333,392	334	,998		
	Total	351,849	337			
relevant	Between Groups	20,612	3	6,871	7,096	<,001
	Within Groups	323,388	334	,968		
	Total	344,000	337			
valuable	Between Groups	21,049	3	7,016	7,908	<,001
	Within Groups	296,347	334	,887		
	Total	317,396	337			

# ANOVA Effect Sizes a,b

			95% Confide	nce Interval
		Point Estimate	Lower	Upper
good	Eta-squared	,039	,005	,081
	Epsilon-squared	,031	-,004	,072
	Omega-squared Fixed-effect	,031	-,004	,072
	Omega-squared Random- effect	,010	-,001	,025
interesting	Eta-squared	,052	,011	,099
	Epsilon-squared	,044	,002	,091
	Omega-squared Fixed-effect	,044	,002	,091
	Omega-squared Random- effect	,015	,001	,032
relevant	Eta-squared	,060	,016	,109
	Epsilon-squared	,051	,007	,101
	Omega-squared Fixed-effect	,051	,007	,100
	Omega-squared Random- effect	,018	,002	,036
valuable	Eta-squared	,066	,019	,117
	Epsilon-squared	,058	,011	,109
	Omega-squared Fixed-effect	,058	,011	,109
	Omega-squared Random- effect	,020	,004	,039

a. Eta-squared and Epsilon-squared are estimated based on the fixed-effect

#### **Post Hoc Tests**

b. Negative but less biased estimates are retained, not rounded to zero.

### **Multiple Comparisons**

Dependent	Variable	(I) condition_num	(J) condition_num	Mean Difference (I-J)	Std. Error	Sig.
good	Tukey HSD	content	random	,188	,146	,569
J	,		sentiment	-,220	,146	,436
			topics	-,295	,144	,171
		random	content	-,188	,146	,569
			sentiment	-,408 <sup>*</sup>	,147	,030
			topics	-,483 <sup>*</sup>	,145	,005
		sentiment	content	,220	,146	,436
			random	,408*	,147	,030
			topics	-,075	,145	,955
		topics	content	,295	,144	,171
			random	,483*	,145	,005
			sentiment	,075	,145	,955
interesting	Tukey HSD	content	random	,120	,154	,863
			sentiment	-,409 <sup>*</sup>	,155	,043
			topics	-,392	,152	,050
		random	content	-,120	,154	,863
			sentiment	-,529 <sup>*</sup>	,156	,004
			topics	-,512 <sup>*</sup>	,153	,005
		sentiment	content	,409*	,155	,043
			random	,529 <sup>*</sup>	,156	,004
			topics	,017	,153	1,000
		topics	content	,392	,152	,050
			random	,512 <sup>*</sup>	,153	,005
			sentiment	-,017	,153	1,000
relevant	Tukey HSD	content	random	,205	,152	,531
			sentiment	-,420 <sup>*</sup>	,152	,031
			topics	-,313	,150	,158
		random	content	-,205	,152	,531
			sentiment	-,625 <sup>*</sup>	,153	<,001
			topics	-,518 <sup>*</sup>	,151	,004
		sentiment	content	,420*	,152	,031
			random	,625 <sup>*</sup>	,153	<,001
			topics	,107	,151	,894
		topics	content	,313	,150	,158
			random	,518 <sup>*</sup>	,151	,004
			sentiment	-,107	,151	,894

### **Multiple Comparisons**

				95% Confide	ence Interval
Dependent '	Variable	(I) condition_num	(J) condition_num	Lower Bound	Upper Bound
good Tukey HSD	content	random	-,19	,56	
		sentiment	-,60	,16	
			topics	-,67	,08
		random	content	-,56	,19
			sentiment	-,79	-,03
			topics	-,86	-,11
		sentiment	content	-,16	,60
			random	,03	,79
			topics	-,45	,30
		topics	content	-,08	,67
			random	,11	,86
			sentiment	-,30	,45
interesting	Tukey HSD	content	random	-,28	,52
			sentiment	-,81	-,01
			topics	-,78	,00
		random	content	-,52	,28
			sentiment	-,93	-,13
			topics	-,91	-,12
		sentiment	content	,01	,81
			random	,13	,93
			topics	-,38	,41
		topics	content	,00	,78
			random	,12	,91
			sentiment	-,41	,38
relevant	Tukey HSD	content	random	-,19	,60
			sentiment	-,81	-,03
			topics	-,70	,07
		random	content	-,60	,19
			sentiment	-1,02	-,23
			topics	-,91	-,13
		sentiment	content	,03	,81
			random	,23	1,02
			topics	-,28	,50
		topics	content	-,07	,70
			random	,13	,91
			sentiment	-,50	,28

### **Multiple Comparisons**

Dependent	Variable	(I) condition num	(J) condition num	Mean Difference (I-J)	Std. Error	Sig.
valuable	Tukey HSD	content	random	,121	,145	,837
			sentiment	-,395 <sup>*</sup>	,146	,036
			topics	-,462 <sup>*</sup>	,143	,008
		random	content	-,121	,145	,837
			sentiment	-,516 <sup>*</sup>	,147	,003
			topics	-,583 <sup>*</sup>	,144	<,001
		sentiment	content	,395*	,146	,036
			random	,516 <sup>*</sup>	,147	,003
			topics	-,067	,145	,967
		topics	content	,462 <sup>*</sup>	,143	,008
			random	,583 <sup>*</sup>	,144	<,001
			sentiment	,067	,145	,967

### **Multiple Comparisons**

				95% Confide	ence Interval
Dependent	Variable	(I) condition_num	(J) condition_num	Lower Bound	Upper Bound
valuable	Tukey HSD	content	random	-,25	,50
			sentiment	-,77	-,02
			topics	-,83	-,09
		random	content	-,50	,25
			sentiment	-,89	-,14
			topics	-,96	-,21
		sentiment	content	,02	,77
			random	,14	,89
			topics	-,44	,31
		topics	content	,09	,83
			random	,21	,96
			sentiment	-,31	,44

<sup>\*.</sup> The mean difference is significant at the 0.05 level.

# **Homogeneous Subsets**

#### good

			Subset for alpha = 0.05		
	condition_num	N	1	2	
Tukey HSD <sup>a,b</sup>	random	83	3,49		
	content	85	3,68	3,68	
	sentiment	82		3,90	
	topics	88		3,98	
	Sig.		,567	,180	
Tukey B <sup>a,b</sup>	random	83	3,49		
	content	85	3,68	3,68	
	sentiment	82		3,90	
	topics	88		3,98	

Means for groups in homogeneous subsets are displayed.

- a. Uses Harmonic Mean Sample Size = 84,439.
- b. The group sizes are unequal. The harmonic mean of the group sizes is used. Type I error levels are not guaranteed.

#### interesting

			Subset for alpha = 0.05			
	condition_num	N	1	2	3	
Tukey HSD <sup>a,b</sup>	random	83	3,39			
	content	85	3,51	3,51		
	topics	88		3,90	3,90	
	sentiment	82			3,91	
	Sig.		,862	,055	1,000	
Tukey B <sup>a,b</sup>	random	83	3,39			
	content	85	3,51			
	topics	88		3,90		
	sentiment	82		3,91		

Means for groups in homogeneous subsets are displayed.

- a. Uses Harmonic Mean Sample Size = 84,439.
- b. The group sizes are unequal. The harmonic mean of the group sizes is used. Type I error levels are not guaranteed.

#### relevant

			Subset for alpha = 0.05			
	condition_num	N	1	2	3	
Tukey HSD <sup>a,b</sup>	random	83	3,28			
	content	85	3,48	3,48		
	topics	88		3,80	3,80	
	sentiment	82			3,90	
	Sig.		,528	,166	,895	
Tukey B <sup>a,b</sup>	random	83	3,28			
	content	85	3,48	3,48		
	topics	88		3,80	3,80	
	sentiment	82			3,90	

Means for groups in homogeneous subsets are displayed.

- a. Uses Harmonic Mean Sample Size = 84,439.
- b. The group sizes are unequal. The harmonic mean of the group sizes is used. Type I error levels are not guaranteed.

#### valuable

			Subset for alpha = 0.05	
	condition_num	N	1	2
Tukey HSD <sup>a,b</sup>	random	83	3,34	
	content	85	3,46	
	sentiment	82		3,85
	topics	88		3,92
	Sig.		,836	,967
Tukey B <sup>a,b</sup>	random	83	3,34	
	content	85	3,46	
	sentiment	82		3,85
	topics	88		3,92

Means for groups in homogeneous subsets are displayed.

- a. Uses Harmonic Mean Sample Size = 84,439.
- b. The group sizes are unequal. The harmonic mean of the group sizes is used. Type I error levels are not guaranteed.