Grand Valley Magazine Project Chi Square Testing

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Data Import

Question 11

Table 1: Observed Counts

	Action								
Age	Attended Event	Contacted Classmate	Discussed Article	Donated	None	Recommended GV	Saved Article	Shared Article - Email	Shared Article - Social Media
17-24	25	6	28	1	50	10	11	5	2
25-35	25	8	47	5	42	15	33	7	11
36-49	55	18	113	22	76	49	63	28	30
50-65	51	14	140	22	103	54	67	34	24
66+	50	10	91	42	63	32	60	18	9

Table 2: Expected Counts

	Action								
Age	Attended Event	Contacted Classmate	Discussed Article	Donated	None	Recommended GV	Saved Article	Shared Article - Email	Shared Article - Social Media
17-24	11.30	3.07	22.99	5.05	18.33	8.78	12.84	5.05	4.17
25-35	12.73	3.46	25.89	5.69	20.64	9.89	14.46	5.69	4.70
36-49	28.64	7.79	58.26	12.79	46.44	22.25	32.54	12.79	10.57
50-65	33.25	9.04	67.64	14.85	53.92	25.83	37.77	14.85	12.27
66+	23.82	6.47	48.44	10.64	38.61	18.50	27.05	10.64	8.79

Table 3: What actions have you taken as a result of reading the Grand Valley Magazine?

Action	statistic	chisq_dfp_value	significant
Attended Event	21.5728	40.00024	**
Contacted Classmate	8.2857	40.08166	n.s.
Discussed Article	101.7995	4<.0001	***
Donated	57.8913	4<.0001	***
None	34.5329	4<.0001	***
Recommended GV	48.3125	4<.0001	***
Saved Article	49.5043	4<.0001	***
Shared Article - Email	35.0652	4<.0001	***
Shared Article - Social Media	34.6579	4<.0001	***
Visited Website	37.8173	4<.0001	***

- Shared article (both)

Table 4: Posthoc testing for Shared Article - Email

test_between	statistic	chisq_dfp_value	significant
17-24 and 25-35	0.3333	10.5637	n.s.
17-24 and 36-49	16.0303	1<.0001	***
17-24 and 50-65	21.5641	1<.0001	***
17-24 and 66+	7.3478	10.00671	n.s.
25-35 and 36-49	12.6000	10.00039	**
25-35 and 50-65	17.7805	1<.0001	***

Table 4: Posthoc testing for Shared Article - Email

test_between	statistic	chisq_dfp_value	significant
25-35 and 66+	4.8400	10.02781	n.s.
36-49 and 50-65	0.5806	10.44606	n.s.
36-49 and 66+	2.1739	10.14037	n.s.
50-65 and 66+	4.9231	10.0265	n.s.

Table 5: Posthoc testing for Shared Article - Social Media

test_between	statistic	chisq_dfp_value	significant
17-24 and 25-35	6.2308	10.01255	n.s.
17-24 and 36-49	24.5000	1<.0001	***
17-24 and 50-65	18.6154	1<.0001	***
17-24 and 66+	4.4545	10.03481	n.s.
25-35 and 36-49	8.8049	10.003	*
25-35 and 50-65	4.8286	10.02799	n.s.
25-35 and 66+	0.2000	10.65472	n.s.
36-49 and 50-65	0.6667	10.41422	n.s.
36-49 and 66+	11.3077	10.00077	**
50-65 and 66+	6.8182	10.00902	n.s.

- visited website

Table 6: Posthoc testing for Visited Website

test_between	statistic	chisq_dfp_value	significant
17-24 and 25-35	1.0889	10.29672	n.s.

Table 6: Posthoc testing for Visited Website

test_between	statistic	chisq_df	p_value	significant
17-24 and 36-49	25.1905	1	<.0001	***
17-24 and 50-65	19.7532	1	<.0001	***
17-24 and 66+	7.4746	1	0.00626	n.s.
25-35 and 36-49	16.7143	1	<.0001	***
25-35 and 50-65	12.1905	1	0.00048	**
25-35 and 66+	2.9697	1	0.08484	n.s.
36-49 and 50-65	0.3984	1	0.52793	n.s.
36-49 and 66+	5.9524	1	0.0147	n.s.
50-65 and 66+	3.3061	1	0.06902	n.s.

Table 7: Posthoc testing for Saved Article

test_between	statistic	chisq_df	p_value	significant
17-24 and 25-35	11.0000	1	0.000911	**
17-24 and 36-49	36.5405	1	0.000000	***
17-24 and 50-65	40.2051	1	0.000000	***
17-24 and 66+	33.8169	1	0.000000	***
25-35 and 36-49	9.3750	1	0.002200	*
25-35 and 50-65	11.5600	1	0.000674	**
25-35 and 66+	7.8387	1	0.005114	n.s.
36-49 and 50-65	0.1231	1	0.725721	n.s.
36-49 and 66+	0.0732	1	0.786775	n.s.

Table 7: Posthoc testing for Saved Article

test_between	statistic	chisq_df	p_value	significant
50-65 and 66+	0.3858	1	0.534501	n.s.