Grand Valley Magazine Project Chi Square Testing

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Data Import

Questions

Question 1

Where do you acquire most of your information about GV?

Table 1: Observed Counts

| | | | | | | | | Source | |
Age	GV Emails	GV Publications	GVM Print	GVM Website	Lanthorn	Media	Other	Social Media	Word of Mouth
17-24	78	3	10	11	10	8	3	51	25
25-35	84	5	59	16	2	9	6	49	30
36-49	180	17	138	46	7	17	18	112	33
50-65	206	23	153	56	12	26	16	95	43
66+	135	23	166	47	5	31	10	27	25

Table 2: Expected Counts

| | | | | | | | | Source | |
Age	GV Emails	GV Publications	GVM Print	GVM Website	Lanthorn	Media	Other	Social Media	Word of Mouth
17-24	33.09	3.44	25.48	8.53	1.74	4.41	2.57	16.18	7.56
25-35	37.27	3.87	28.70	9.60	1.96	4.97	2.89	18.22	8.51
36-49	83.85	8.72	64.57	21.61	4.42	11.17	6.51	41.00	19.15
50-65	97.34	10.12	74.97	25.08	5.13	12.97	7.55	47.60	22.23
66+	69.71	7.25	53.69	17.96	3.67	9.29	5.41	34.09	15.92

Table 3: Where do you acquire most of your information about GV?

source	statistic	chisq_df	p_value	significant
GV Emails	94.4597	4	0.000000	***
GV Publications	26.2535	4	0.000028	***
GVM Print	173.5247	4	0.000000	***
GVM Website	46.6705	4	0.000000	***
Lanthorn	8.7222	4	0.068430	n.s.
Media	22.7912	4	0.000139	***
Other	15.3962	4	0.003946	**
Social Media	74.6826	4	0.000000	***
Word of Mouth	7.0769	4	0.131879	n.s.

- GVM Print

Table 4: Posthoc testing for GVM Print

test_between	statistic	chisq_df	p_value	significant
17-24 and 25-35	34.7971	1	0.000000	***
17-24 and 36-49	110.7027	1	0.000000	***
17-24 and 50-65	125.4540	1	0.000000	***
17-24 and 66+	138.2727	1	0.000000	***
25-35 and 36-49	31.6802	1	0.000000	***
25-35 and 50-65	41.6792	1	0.000000	***
25-35 and 66+	50.8844	1	0.000000	***
36-49 and 50-65	0.7732	1	0.379230	n.s.
36-49 and 66+	2.5789	1	0.108294	n.s.
50-65 and 66+	0.5298	1	0.466699	n.s.

- GVM Website

Table 5: Posthoc testing for GVM Website

test_between	statistic	chisq_df	p_value	significant
17-24 and 25-35	0.9259	1	0.335924	n.s.
17-24 and 36-49	21.4912	1	0.000004	***
17-24 and 50-65	30.2239	1	0.000000	***
17-24 and 66+	22.3448	1	0.000002	***
25-35 and 36-49	14.5161	1	0.000139	**
25-35 and 50-65	22.2222	1	0.000002	***
25-35 and 66+	15.2540	1	0.000094	***
36-49 and 50-65	0.9804	1	0.322102	n.s.
36-49 and 66+	0.0108	1	0.917411	n.s.
50-65 and 66+	0.7864	1	0.375189	n.s.

- Word of mouth ** Does not differ

Question 3

** How many PRINT issues have you read within the last year?

Table 6: Observed Counts

	Number of issues			
Age	0	1	2	3
17-24	66	22	9	6
25-35	34	21	29	32
36-49	46	40	86	89
50-65	53	52	91	107
66+	18	17	57	125

Table 7: Expected Counts

Age	Number of issues			
	0	1	2	3
17-24	22.35	15.66	28.02	36.98
25-35	25.17	17.63	31.55	41.64
36-49	56.64	39.67	70.99	93.70
50-65	65.75	46.06	82.42	108.78
66+	47.09	32.98	59.02	77.90

statistic	chisq_df	p_value	significant
196.6789	12	0	***

Question 7

Table 9: Observed Counts

Age	Reading level on articles			
	None	Low (1-5)	High (6-10)	Very High (10+)
17-24	49	48	6	0
25-35	55	47	10	4
36-49	89	133	19	20
50-65	88	132	52	31
66+	56	90	36	35

Table 10: Expected Counts

Age	Reading level on articles			
	None	Low (1-5)	High (6-10)	Very High (10+)
17-24	34.71	46.35	12.67	9.27
25-35	39.09	52.20	14.27	10.44
36-49	87.96	117.45	32.10	23.49
50-65	102.11	136.35	37.27	27.27
66+	73.13	97.65	26.69	19.53

Table 11: Question 7 Results

statistic	chisq_df	p_value	significant
67.43376	12	0	***

Question 9

** Would you read Grand Valley Magazine if it was offered as a WEBSITE version only?

Table 12: Observed Counts

	Website only response		
Age	Yes	Unsure	No
17-24	32	17	54
25-35	28	33	55
36-49	94	74	93
50-65	127	67	109
66+	71	53	93

Table 13: Expected Counts

	Website only response		
Age	Yes	Unsure	No
17-24	36.26	25.13	41.61
25-35	40.83	28.30	46.86
36-49	91.87	63.68	105.44
50-65	106.66	73.93	122.41
66+	76.38	52.95	87.67

Table 14: Question 9 Results

statistic	chisq_df	p_value	significant
22.9358	8	0.003448	**