Grand Valley Magazine Project Chi Square Testing

Matthew Dickinson & Foster Thorburn

2023-11-21

Data Import

Questions

Question 1

** Multi-select cannot do chi-square

Question 3

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

Observed Counts				
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

Expected Counts				
age	0	1	2	3
17-24	22.351	15.656	28.016	36.977
25-35	25.172	17.632	31.552	41.644
36-49	56.637	39.672	70.992	93.699
50-65	65.751	46.056	82.416	108.777
66+	47.089	32.984	59.024	77.903

statistic	chisq_df	p_value
196.6789	12	1.580e-35

The mean p-value after taking 500 samples with a proportion of .35 is 1.2934186×10^{-7}.

Question 5

** Likert cannot do chi-square

Question 7

** How many articles have you read on the Grand Valley Magazine WEBSITE in the last year?

Observed Counts									
age	0	1	2	3	4	5	6	7	8
17-24	49	10	14	9	5	10	3	3	0
25-35	55	20	11	8	5	3	7	3	0
36-49	89	39	30	28	20	16	8	6	3
36-49	89	39	30	28	20	16	8	6	3
50-65	88	29	25	33	24	21	22	11	10
66+	56	27	13	11	19	20	12	6	8
66+	56	27	13	11	19	20	12	6	8

Expected Counts									
age	0	1	2	3	4	5	6	7	8
17-24	34.711	12.875	9.579	9.167	7.519	7.21	5.356	2.987	0.103
25-35	39.092	14.500	10.788	10.324	8.468	8.12	6.032	3.364	0.116
36-49	87.957	32.625	24.273	23.229	19.053	18.27	13.572	7.569	5.481
36-49	87.957	32.625	24.273	23.229	19.053	18.27	13.572	7.569	5.481
50-65	102.111	37.875	28.179	26.967	22.119	21.21	15.756	8.787	6.363
66+	73.129	27.125	20.181	19.313	15.841	15.19	11.284	6.293	4.557
66+	73.129	27.125	20.181	19.313	15.841	15.19	11.284	6.293	4.557

```
## [1] 0.002426004
```

Question 9

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

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

age	Unsure	No	Yes
17-24	17	54	32

2

age	Unsure	No	Yes
25-35	33	55	28
36-49	74	93	94
50-65	67	109	127
66+	53	93	71

```
## [1] 0.06224177
```

Question 11

** Multi-select cannot do chi-square