



Statistical Analysis using Chi-Square

Table 1: Helminth parasites among male & female in primary school children

| Sex | No. infected | No. not infected | Total |
|--------|--------------|------------------|-------|
| Female | 45(75.0) | 15(25.0) | 60 |
| Male | 27(67.5) | 13(32.5) | 40 |
| Total | 72(72.0) | 28(28.0) | 100 |

Table 1.1: Helminth parasites among male & female in primary school children

| | O | E | O-E | (O-E) ² | $\frac{(O - E)^2}{E}$ | $X^2 = \frac{(O-E)^2}{E}$ |
|----------------------------------------------------------|----|------|------|--------------------------|-----------------------|---------------------------|
| Female infected | 45 | 43.2 | 1.8 | 3.24 | 0.075 | 1.74 |
| Female not infected | 15 | 7.8 | 7.2 | 51.84 | 6.65 | 0.85 |
| Male infected | 27 | 28.8 | -1.8 | 3.24 | 0.11 | 3.82 |
| Male not infected | 13 | 11.2 | 1.8 | 3.24 | 0.29 | 0.03 |
| Total | | | | | | 6.44 |
| $\frac{RC}{E = N}$ | | | | Degree of freedom | | |
| Where E= expected value, R = raw | | | | d. f = 1, P>0.05 | | |
| C=column and N= total number | | | | d. f = (c-1) (r-1) | | |
| By using the formula above | | | | d. f = (2-1) (2-1) | | |
| $E_1 = \frac{R1C1}{N} = \frac{60 \times 72}{100} = 43.2$ | | | | d. f = (1) (1) | | |
| $E_2 = \frac{R2C2}{N} = \frac{60 \times 13}{100} = 7.8$ | | | | d. f = 1 | | |
| $E_3 = \frac{R3C3}{N} = \frac{40 \times 72}{100} = 28.8$ | | | | | | |
| $E_3 = \frac{R3C3}{N} = \frac{40 \times 72}{100} = 28.8$ | | | | | | |
| $E_4 = \frac{R4C4}{N} = \frac{40 \times 28}{100} = 13.0$ | | | | | | |