Step1: Null Hypothesis(H0):There is no relationship between gender of an individual and the

level of education they have obtained

Step 2: Alternate Hypothesis(HA): There is a relationship/dependency between gender of an

individual and the level of education they have obtained.

Step3: The expected values are

Female High School = 100\*201/395=5.886

Male High School = 108\*194/395=49.114

Female Bachelors = 98\*201/395=49.868

Male Bachelors = 98\*194/395=48.132

Female Masters = 99\*201/395 = 50.377

Male Masters = 99\*194/395=48.623

Female PHD = 98\*201/395 = 49.868

Male PHD = 98\*194/395 = 48.132

So, working this out, χ2=(60−50.886)2/50.886+⋯+(57−48.132)2/48.132=8.006

The critical value of χ2 with 3 degree of freedom is 7.815. Since 8.006 &gt; 7.815, therefore we

reject the null hypothesis and conclude that the education level depends on gender at a 5%

level of significance.