

when the calculated value exceeds the critical value at 0.05 probability level. Since the calculated value is greater than the critical value, the null hypothesis is therefore rejected. The researcher, therefore, concludes that there is significant difference in the mean mathematics achievement scores of SS2 students taught algebra through the use of Guided Discovery method and Expository method.

For hypothesis 2, Table 3 reveals that  $F_{cal}(172.114)$  is greater than the  $F_{critical}(3.840)$  at an alpha level of 0.05. Since the calculated value is greater than the critical value, the null hypothesis is rejected. Hence, the mean mathematics achievement scores of males and females taught algebra, irrespective of method is significant. For hypothesis 3, results presented in Table 3, reveals that for the two way interaction, the  $F_{calculated}$  is 13.492 while the critical value at 0.05 probability level is 3.840. Based on the decision rule, the researcher fails to accept the null hypothesis and concludes that there is significant interaction effect between method and gender on SS2 mathematics students' achievement in algebra.

### **Discussion**

The result of the hypothesis tested in table 1 unveiled that there exist a significant difference in the achievement of students taught mathematics with Guided discovery and expository methods. The guided discovery method had a mean score of 55.77 and standard deviation of 7.83 as against a mean score of 29.51 and standard deviation of 8.57 for the expository group. This shows a positive difference which implies that guided discovery method of teaching mathematics was found to be more effective than the expository method in fostering students' achievement. This finding appears to make an emphatic premise which gives support to what was earlier stated by Ezinwa (2003), that the use of guided discovery method in teaching and learning mathematical concept is more effective than expository method. Also the result is in agreement with the findings of the research carried out by Galadima (2010) in Sokoto and Zamfra states in which guided Discovery method of teaching was found to be more effective than the expository methods. The result also shows that the male students who were taught with guided discovery method had a significant higher achievement than female students who were taught by same strategy. However, there is no significant interaction effect(method and gender) on mean achievement scores on algebra taught SS2 students with guided discovery and expository methods of teaching.

### **Conclusion**

The study empirically compared the relative effectiveness of Guided Discovery and Expository methods on students' achievement in mathematics in Enugu State Secondary Schools. The study determined the mean scores and standard deviation of senior secondary 2 students taught algebra with guided discovery and expository methods after the treatment to each group. Two research questions and two research hypotheses guided the study. The study employed a non- equivalent pretest, posttest quasi-experimental design. The study revealed that students exposed to Guided Discovery method of instruction achieved higher mean score of 55.77 than those exposed to Expository with mean score of 29.51.