3. Click **Define**.
4. Click **age**, then click ▶ to move it to the Category Axis box.
5. Click **condesc**. then click ▶ to move it to the Define Clusters By box.
6. Click **OK**.

In Figure 255, you can see the clustered bar chart for the frequency of each level of condescension within the three age categories.

![Figure 255. A clustered bar chart of condescension within the age categories.](image)

**An APA Results Section**

A two-way contingency table analysis was conducted to evaluate whether male college students were more condescending to young, middle-aged, or elderly women. The two variables were age of female trainee with three levels (young, middle-aged, and elderly) and condescension of male trainer with two levels (not condescending and condescending). Age and condescension were found to be significantly related. Pearson χ²(2, N = 90) = 6.32, p = .04, Cramér's V = .26. The proportions of males who were condescending toward the young, the middle-aged, and the elderly female trainees were .30, .17, and .47, respectively.

Follow-up pairwise comparisons were conducted to evaluate the difference among these proportions. Table 62 shows the results of these analyses. The Holm's sequential Bonferroni method was used to control for Type I error at the .05 level across all three comparisons. The only pairwise difference that was significant was between the middle-aged and the elderly trainees. The probability of a trainee being treated in a condescending fashion was about 2.76 times (.47/.17) more likely when the trainee was elderly as opposed to middle-aged.
Table 62

Results for the Pairwise Comparisons Using the Holm’s Sequential Bonferroni Method

<table>
<thead>
<tr>
<th>Comparison</th>
<th>Pearson chi-square</th>
<th>p value (Alpha)</th>
<th>Cramér’s V</th>
</tr>
</thead>
<tbody>
<tr>
<td>Middle-aged vs. elderly</td>
<td>6.24*</td>
<td>.012 (.017)</td>
<td>.32</td>
</tr>
<tr>
<td>Young vs. elderly</td>
<td>1.76</td>
<td>.184 (.025)</td>
<td>.17</td>
</tr>
<tr>
<td>Young vs. middle-aged</td>
<td>1.49</td>
<td>.222 (.050)</td>
<td>.16</td>
</tr>
</tbody>
</table>

*p value ≤ alpha

Exercises

Exercises 1 through 3 are based on the following research problem. The data for these exercises can be found in the data file named Lesson 41 Exercise File 1 on the Web at http://www.pearsonhighered.com/greensalkindSPSS.

Lilly collects data on a sample of 130 high school students to evaluate whether the proportion of female high school students who take advanced math courses in high school varies depending upon whether they have been raised primarily by their father or by both their mother and their father. The SPSS data file contains two variables: math (0 = no advanced math and 1 = some advanced math) and parent (1 = primarily father and 2 = father and mother).

1. Conduct a crosstabs analysis to examine whether the proportion of female high school students who take advanced math courses is different for different levels of the parent variable. From the output, identify the following:
   a. Percent of female students who took some advanced math classes
   b. Percent of female students who took no advanced math classes when female students were raised by their fathers
   c. Percent of female students raised by their father only
   d. $\chi^2$ value
   e. Strength of relationship between taking advanced math classes and level of parenting

2. Create a clustered bar graph to show differences in the number of female students taking some advanced math classes for the different categories of parenting.

3. Write a Results section based on your analysis.

Exercises 4 through 6 are based on the following research problem.

Bobby is interested in knowing whether teaching method has an effect on interest in subject matter. To investigate this question, he randomly assigns 90 high school students enrolled in history to one of three teaching conditions. All 90 students are exposed to exactly the same information for the same length of time. However, 30 of the students are presented a filmed reenactment of the historical events; 30 see an MTV-type video presentation of the events; and 30 are presented the information in the form of a traditional lecture. At the end of the presentation, the students in each condition are asked whether they found the information interesting. They were to check one of three alternatives: Really Like to Know More About That; Excuse Me—You Call That a Presentation?; and Boring—Please, No More of That! The data are in Table 63 (on page 376).

4. Create a data file containing the data in Table 63 by using the weighted cases method.

5. Conduct a two-way contingency analysis to analyze the data.

6. Write a Results section based on your analysis.