Unit 31
Using SPSS in Report Writing

Contents

Learning Objectives

It is expected that after going through Unit 31, you will be able to

❖ Edit the SPSS output Tables to suit your needs in report writing
❖ Create and edit Charts for graphic presentation of your data analysis
❖ Copy the SPSS edited Tables and Charts directly in your report.

31.1 Introduction

Unit 29 you read about SPSS and now in Unit 31 you will learn how to modify or edit the Tables generated by the SPSS to meet your specific needs in writing reports. Creating and editing Charts are covered to enhance your report presentation skills. Also, you will learn how to copy the edited tables and charts in a MS Word document where your main report file may be accessible.

31.2 Why to Use SPSS

In SPSS, when you run a statistical procedure, the results are displayed in a window called Viewer. At the time of including these results in your report, you may wish to create a professional-looking report both quickly and easily. Powerful calculation and formatting capabilities of SPSS let you design your own highly specialised reports, such as cross-tabulation. You can use formatting tools to change fonts, colours, styles, column size, row size, and alignment. The use of preset formatting in style sheets can eliminate the need to reformat each new report.

Often, the most striking way of presentation of data is with Charts (also, often called Graphs). A Chart provides a quick visual sense of the main features of the data. Using SPSS, you can create and edit Charts for your data.

Normally, you use MS Word or some other word processing program to type your report. You include the Tables and Charts generated by the SPSS in the report to support your analysis. Using the Copy and Paste

functions of MS Word, the Tables and Charts generated by the SPSS can be copied from the SPSS Output Window and pasted into the Word Window without having to create new Tables and Charts.

31.3 Charts

A chart is a graphical presentation of data. Before you create a chart, you should keep in mind:

❖ The **title** identifies the chart. Therefore, give the chart an appropriate title.

❖ **Category (X) axis** identifies the data being charted on the horizontal X-axis. Examples of Category X-axis include dates, persons, places, groups, etc. Therefore, clearly identify the categories of the variable and give an appropriate category axis title.

❖ **Value (Y) axis** identifies the data being charted on the vertical Y-axis. Examples of Y-axis labels include numbers, value of currency, percentage, etc. Therefore, clearly identify the value along with an appropriate value title.

❖ **Legends**[©] identify the information charted. A legend will be important for identifying which information relates to what class.

A number of types of charts (pie charts, bar charts, histograms, etc.) are available to portray certain types of information. You must, therefore, choose the correct type of chart for information you wish to project.

Many of the charts available in SPSS come in two different general formats: (a) Standard chart; and (b) Interactive charts. The standard charts are created either from the main Graphs menu bar or by statistical procedures. The interactive charts are created from the Interactive sub-menu of the Graphs menu bar and the charts created from pivot tables. However, we will limit this Unit to creating and editing Standard charts only.

Pie Charts can be created using any of the level of measurement of data (nominal, ordinal, interval, or ratio). Bar charts can be created using nominal, ordinal, or interval/ratio (discrete variables) data. Histograms are created using interval/ratio (continuous variables) data. The polygon chart can be created using interval/ratio data.

Creating standard charts
In this unit, we shall be concerned with the creation of a simple Pie chart and then a Bar chart.

Pie Chart: A pie chart can be constructed for all levels of measurement.

To create a pie chart, follow the instructions given below:

1) Select **Graphs→Pie...** command from the menu bar in the **Data Editor** Window. The Pie Charts dialog box (figure 31.1) appears on the

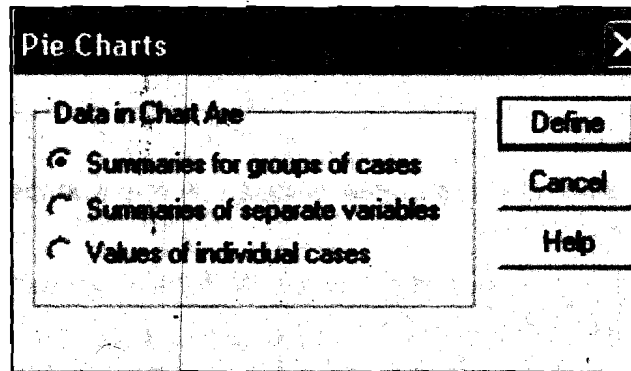screen asking you to define the cases in a variable or separate variables.

Figure 31.1 The Pie Charts Dialog Box

a) If you want the summary (number, percentage, etc.) of cases in each category groups available in the same variable check mark the **Summaries for groups of cases** button. For example, you may wish a pie chart to show the gender distribution of the number of respondents (sex variable: Number of male and female respondents).

b) If you want the summaries (total, percentage, average, count, etc) of different variables as a pie chart check mark the **Summaries of separate variables** button.

c) If you want simply the values of individual cases as a pie chart, check mark **Values of Individual Cases** button. For example, you might have typed the number '25' as male respondents as case-1 and the number '30' as female respondents against case-2 in 'gender' variable.

In our example, we have check marked **Summaries for groups of cases** button, since the gender sub groups (male and female) are in sex variable.

2) After check mark in the appropriate button in the **Pie charts** dialog box, press the **Define** button to close that dialog box. The **Define Pie: Summary for Groups of Cases** dialog box appears on the screen. The default setting for what each slice of a Pie chart should represent is the number
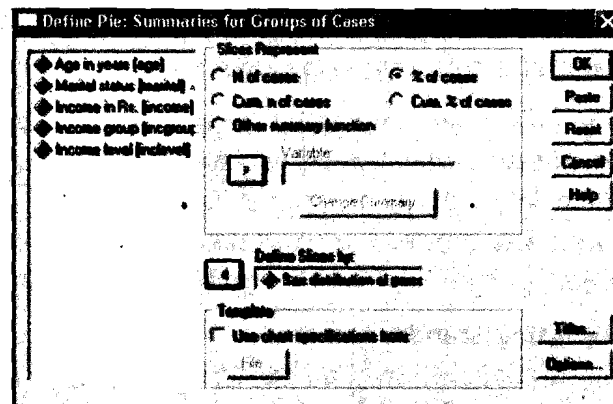

Figure 31.2 Define Pie:
Summaries for group of cases

of cases. **Check mark N of cases** button if it is not already check marked. You can also check mark % **of cases** button if required in place of number of cases. Transfer the variable(s) on which you want the pie

chart from left variable box to the box under **Define series** by: using arrow key.

Remember that when charts are created, they do not show the missing cases category as default as you have seen in Unit 30 on Using SPSS for Data Analysis. If you want to display this category make sure that the number of cases with missing values is not excessive. To display missing values, click the Options button to define the missing values. The Options dialog box appears. Checks mark the Display groups defined by missing values button and then click Continue button. Click OK button in the Define Pie... dialog box to create a Pie chart.

Reflection and Action 31.1

Read carefully the text given above about creating standard charts and answer the following questions. Write your answers in the context of creating a pie chart on the gender distribution in India.

❖ When you create a chart in SPSS, what are the important points you should keep in mind?

❖ Discuss the steps involved in creating a Pie Chart on the topic mentioned above.

Graph: See figure 31.3 an example of a completed Pie Chart on the gender distribution in India.
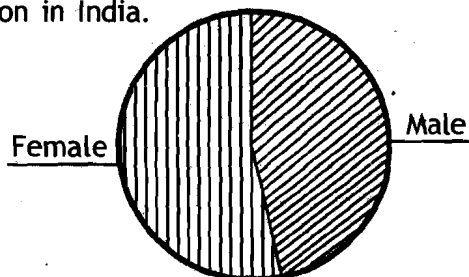

Figure 31.3 Example of a completed Pie Chart on the gender distribution in India

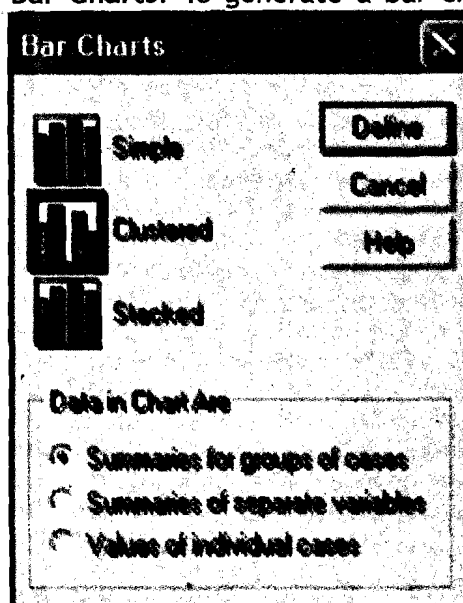Bar Charts: To generate a bar chart, select **Graphs→Bar...** command from the menu bar of the Data Editor window. The **Bar Charts** dialog box appears on the screen. You have three options available in this dialog box: (a) Simple bar charts, (b) Clustered bar charts, and (c) Stacked bar charts. Select your option by clicking on the respective chart box, define the case as you have done for pie chart by clicking either **Summary for groups of cases**, or **Summary of separate variables**, or **Values of individual cases** box under **Data in Chart Are** area in the Bar Charts dialog box. In our example, we have check

Figure 31.4 Bar Charts

marked **Summaries for groups** of **cases** button, since the gender sub groups (male and female) are in sex variable.

Click on the **Define** button in the Bar Charts dialog box to close it. The **Define Simple Bar: Summary for Groups of Cases** dialog box appears on the screen, which is identical to the **Define Pie** dialog box. Transfer the variable(s) on which you want the bar chart from left variable box to the box under **Category Axis:** using arrow key. The default setting for what each rectangle of a bar chart should represent is the number of cases. Check mark **N of cases** button if it is not already check marked. You can also check mark **% of cases** button if required in place of number of cases. Click **OK** button to generate the bar chart in the Output Viewer window.
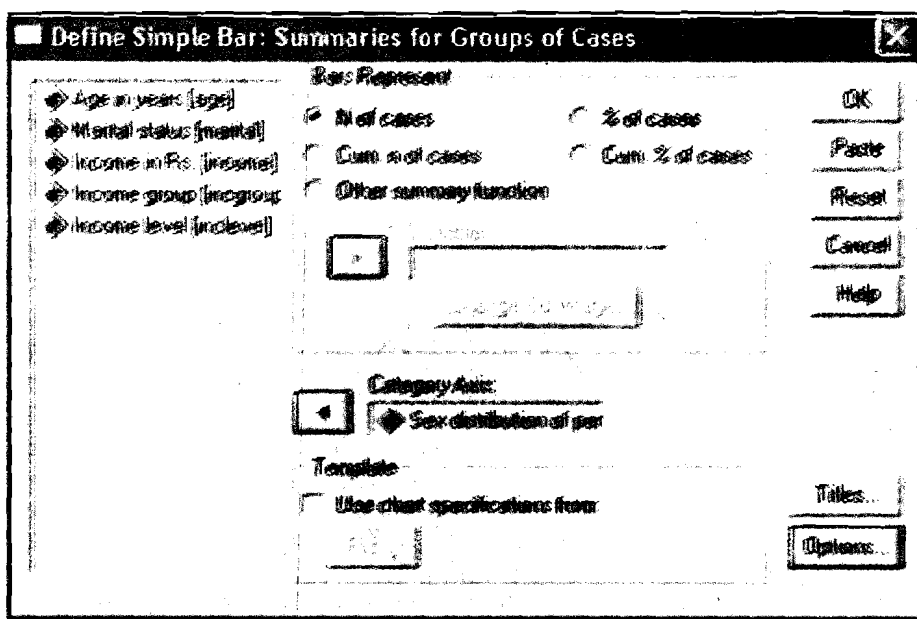

Figure 31.5
Define Simple Bar: Summaries for Groups of Cases

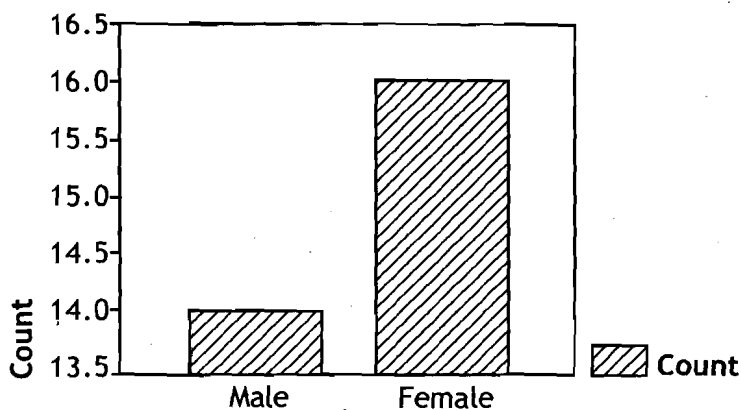Graph: See in figure 31.6 an example of a completed Bar Chart.

Figure 31.6

Example of a completed Bar Chart on Sex Distribution of Persons

Editing Chart Output©

The basic SPSS procedure on creating graphs produces a bare minimum amount of information about the chart. You do not get a title, or number, or percentage for each slice of the chart. You could have generated title of the graph by clicking Titles button on the Define Pie...dialog box in case of pie chart or Define simple bar... dialog box in case of bar chart. However, in SPSS a number of options are available to improve the graph. You can do this with the help of SPSS chart Editor.

1)   Double click anywhere on the chart. The **Chart Editor** dialog box appears along with a menu bar. You can choose a number of options to improve the chart or change one type of chart to another type of chart.
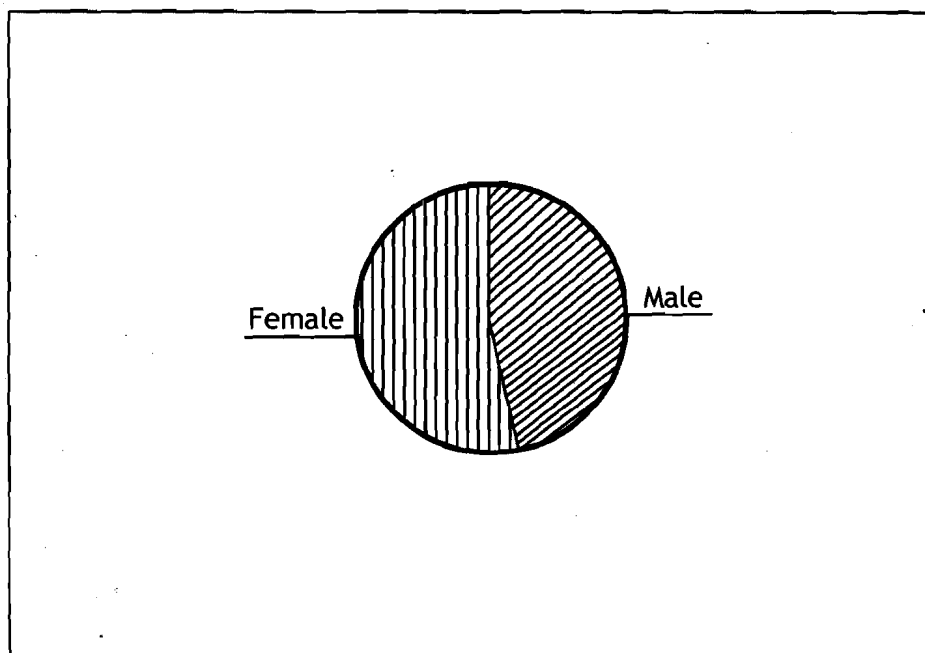

Figure 31.7 Chart 1: SPSS Chart Editor

2)   **Changing to a different type of chart**: To change the type of chart from pie chart to bar chart, select **Gallery→Bar** command from the menu bar in Chart Editor. The **Bar Charts** dialog box appears. You have three options (Simple, Clustered, or Stacked). Click the **Replace** button to change the chart type to a (Simple) bar chart.
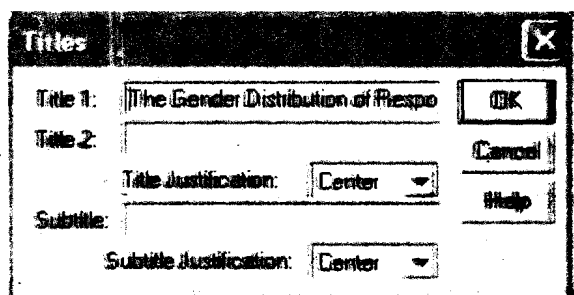

Figure 31.8 Titles

3)   **Adding Titles to your chart**: To add titles to the chart, select **Chart→Title** command from the menu bar in Chart Editor. The Titles dialog box appears. Type the title of the chart in the **Title 1**: and/or **Title 2**: box. Click **OK** button to

close this dialog box and insert the title.

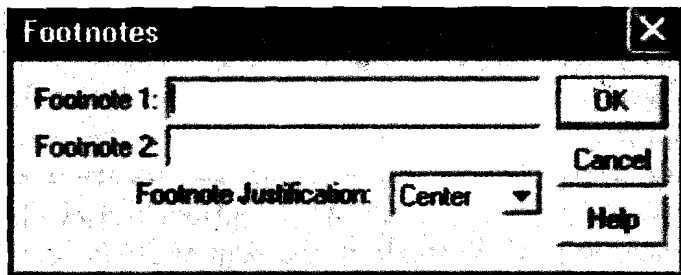4) **A d d i n g Footnote:** To add footnote to the chart, select **Chart→ Footnote** command from the menu bar in the Chart Editor. The **Footnotes** dialog box appears. Type the text for footnotes in the **Footnote 1:** and/ or **Footnote 2:** box. You can also align (Centre, Left, or Right) by selecting the option the **Footnote** Justification-box. Click OK button to close this dialog box and insert the typed footnotes.

Figure 31.9 Footnotes

5) **O p t i o n s :** select **Chart→ Options** command from the menu bar in the Chart Editor to change the information that is attached to each sli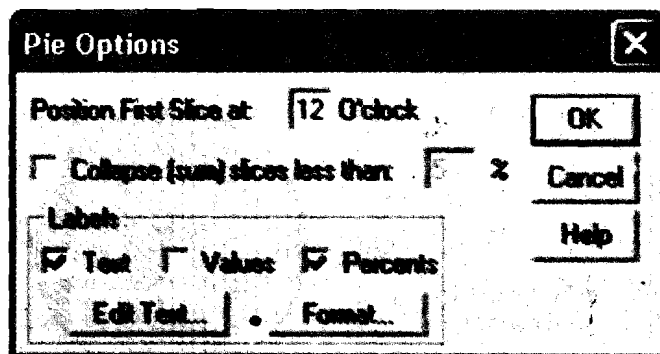ce of the Pie. As we have seen earlier at the time of creating a chart the default setting for text labels (male/female, etc.) is represented by each slice. In the options dialog box click on the **Values** and **Percents** boxes to generate absolute (number) and relative (percent) frequencies for each slice displayed along with the text label. By clicking **Format** button, you can also set the decimal places either to zero or some other required number of digits.

Figure 31.10 Pie Options

The Gender Distribution of Respondents
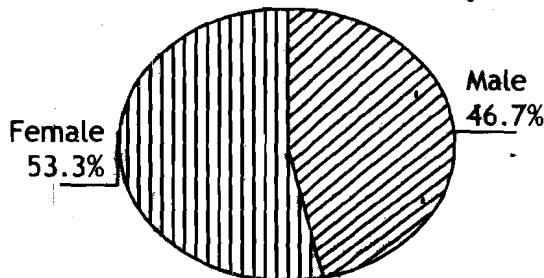
Male
46.7%

Female
53.3%

Figure 31.11 Pie Chart on The Gender Distribution of Respondents

You can edit the bar chart created earlier using various features in the Chart Editor.

An example of refined bar chart is shown on the next page.
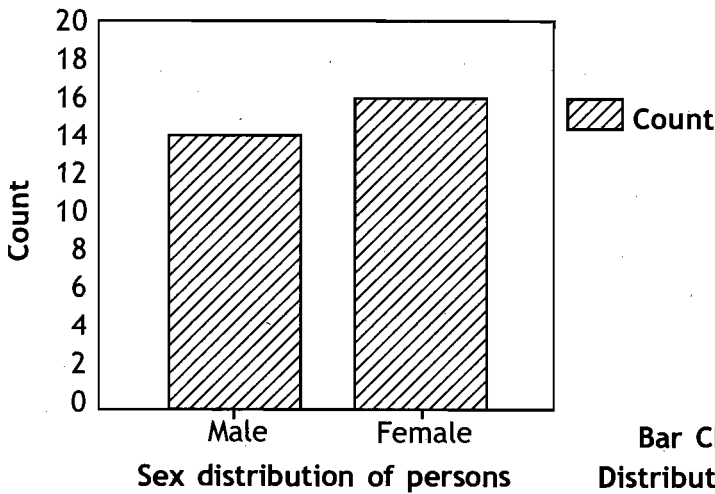
The Gender Distribution of Respondents

Figure 31.12
Bar Chart on the Gender
Distribution of Respondents

Reflection and Action 31.2

At the time of editing a chart you can add or modify some information about the chart. What are the options available for doing so? Discuss the options in terms of changing the chart shown as figure 32.4 in Unit 32 to a different type of chart, adding titles and footnotes to it.

31.4 Working With SPSS Output

All the output generated from statistical and graphical procedures will appear in the SPSS Viewer Window. Every time you run a new procedure in the same session, the output is added at the end of the output of the previous procedure. If the output Viewer Window is closed and another procedure is run, a new output Viewer Window is automatically generated. The Viewer Window has two components: (a) the **Outline** Pane*, and
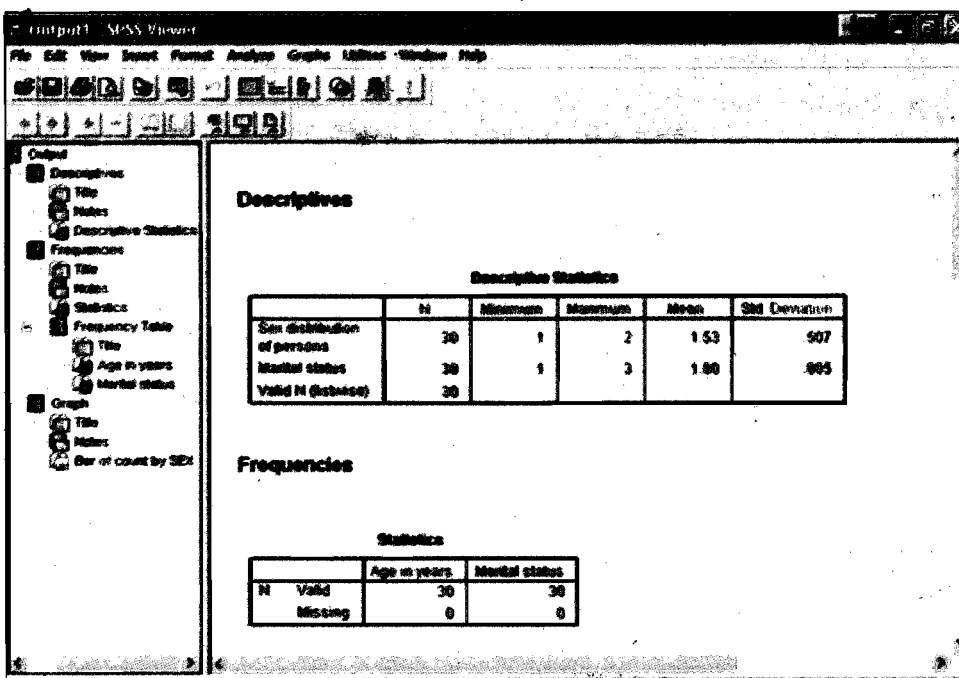

Figure 31.13 Output 1: SPSS Viewer

(b) **Contents** Pane. The Outline Pane is located at the left hand side of the Output Viewer Window and shows the output in outline view as a list of items. The Contents Pane is located at the right side of the Output Viewer Window and displays the actual contents (tables, charts, and text) of the output.

You can click and drag the right (left) border of the outline pane (contents pane) to change the width of the Outline Pane (Contents Pane). This will facilitate enough room in the respective viewer pane.

Browsing Results: You can use the scroll bars (both vertical and horizontal) to browse the results. If you want to go to a particular table/chart/text, click the corresponding caption of the item in the Outline Pane.

You can use the Output Viewer Window to:

❖ Browse through the results

❖ Show or hide selected tables/text/charts

❖ Change the display order of results by moving selected items

❖ Use the Draft Viewer for simple text output

❖ Use the Pivot Table Editor to rearrange the rows, columns, and layers

❖ Copy the items in other applications such as MS Word

❖ Delete the selected tables/text/charts

❖ Add items to viewer

❖ Printing the output

You have learned how to print the output in the earlier Unit on SPSS. You will learn how to copy items in MS Word in the next section of this Unit.

Hiding and Showing Output: In the viewer, you can selectively hide or show the individual text/table/chart. The hidden items (text/table/ chart) would not be viewed, copied, or printed with the rest of the output. To hide a table/text/ chart, double click its open book icon in the Outline Pane of the Viewer. The open book icon changes to a closed book icon signifying that the
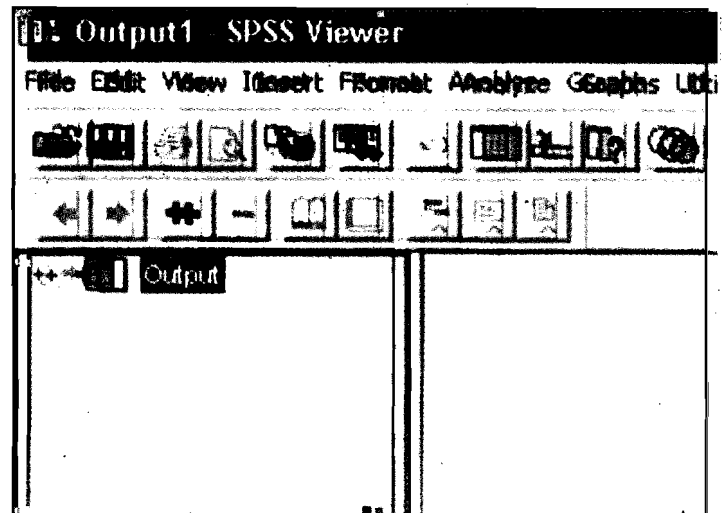

Figure 31.14

Output 1: SPSS Viewer Hiding the Items

particular item of a procedure is hidden. To hide all the results from a particular procedure, click the box to the left of the procedure name in the Outline Pane. This hides all the items (results) from the procedure and collapses the Outline View.

To redisplay the hidden item(s), double click the closed book icon.

Changing Display Order of Items: You can also change the order in which the output is displayed. In the outline pane, click on the items you want to move. Drag the selected items (hold down the mouse button while dragging) to a new location in the outline and release the mouse button. You can also move items by clicking and dragging in the contents pane or selecting **Edit→Cut** command and then select **Edit→Paste** After command on the menu bar.

Deleting Items: Click an item on the Outline Pane or Contents Pane to select the item. Press **Delete** key on the keyboard. The item is deleted.

Changing Items Alignment: By default all results are initially left aligned. You can change the alignment of selected items. For this, click on the items either in Outline Pane or Contents Pane to select the items you want to align. Select **Format→Align Left** to align left or **Format→Align Right** to align right or **Format→Align Centre** command from the menu bar.
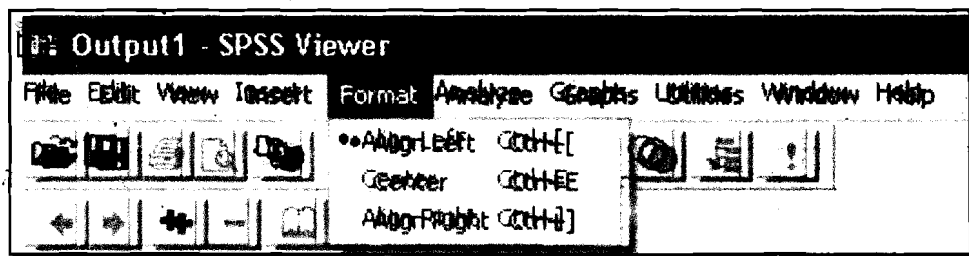
Figure 31.15 Output 1: SPSS Viewer Changing Items Alignments

Adding Items: In the Output Viewer, you can add items such as text, charts, or material from other applications such as Word or Excel. Text items not connected to a table or chart can be added to the Viewer. Click on the text, table, or chart object will precede the title or text you are intended to add. Select **Insert→New Title** command or **Insert→New Text** command from the menu bar. Double click the new object. Enter the text/title you want at this location.
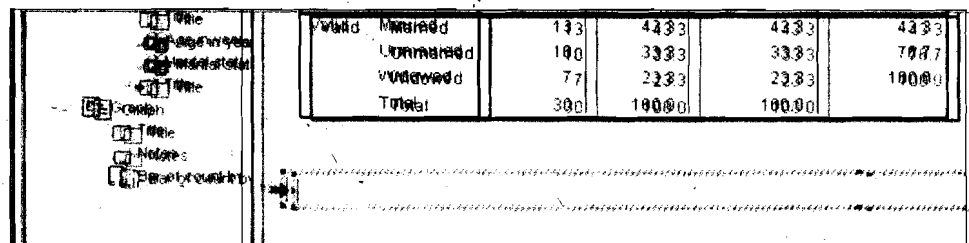

Figure 31.16 Output 1: SPSS Viewer Adding Items

To insert a text file, in the Output Viewer, click a table, chart or text item that will precede the text file you are indented. Select **Insert→Text File...** command from the menu bar. Select the text file to be inserted. Observe that the text file is inserted. To edit the text, double click the item.

Draft Viewer

The Draft Viewer provides results in a draft form when you run a procedure. The text output in the Draft Viewer can be edited, the charts can be resized, and both the text and charts can be copied to other applications such as MS Word. You cannot edit the charts and the Draft Viewer does not include interactive features of pivot tables. That means if you prefer simple text output rather than interactive pivot* tables, you can use the Draft Viewer.

To create a draft output, open the Draft Output Window by selecting **File→New→Draft Output** command in the Data Editor Window and then run a procedure in the **Draft Viewer** Window.

Figure 31.17 Draft 5: SPSS Draft Viewer

Controlling the Format: The output that would be displayed as pivot tables in the Draft Viewer is converted to text output. The default settings for converted pivot table output include:

a) Each column in the table is set to the width of that column label. Therefore, the column labels are not wrapped in multiple lines.

b) Instead of tabs, the alignment is controlled by spaces.

c) Box characters from the SPSS market set are used as row and column separators. If the box characters are turned off, vertical

line characters (|) are used as column separators and dashes (-) are used as row separators.

You can control the format of the table output using Options dialog box before you run a procedure. For this, select **Edit→Options** command in the menu bar before you run a procedure. The **Options** dialog box appears on the screen. Click on the **Draft Viewer** button. To reduce the width of tables, you should reduce the column width containing long labels. Click on **Maximum** button under **Column width**: area in the options dialog box. Type the maximum number of characters that a column width can hold in the box against **characters**. The labels longer than the specified width are wrapped to fit the maximum column width. You can change the default box characters for row and column borders. You can also specify different cell separators or enter blank spaces if you do not want any characters used to mark rows and columns. For this, remove the check mark in the **Display Box Character** box in the options dialog box. Type a character (which you want as row separator) in the box against **Row**: Under **Cell Separators**: area. Similarly, type a character (which you want as column separator) in the box against **Column**: Under **Cell Separators**: area. Typing a space character in the **Row**: and/or column: boxes will result a table with corresponding blank borders.
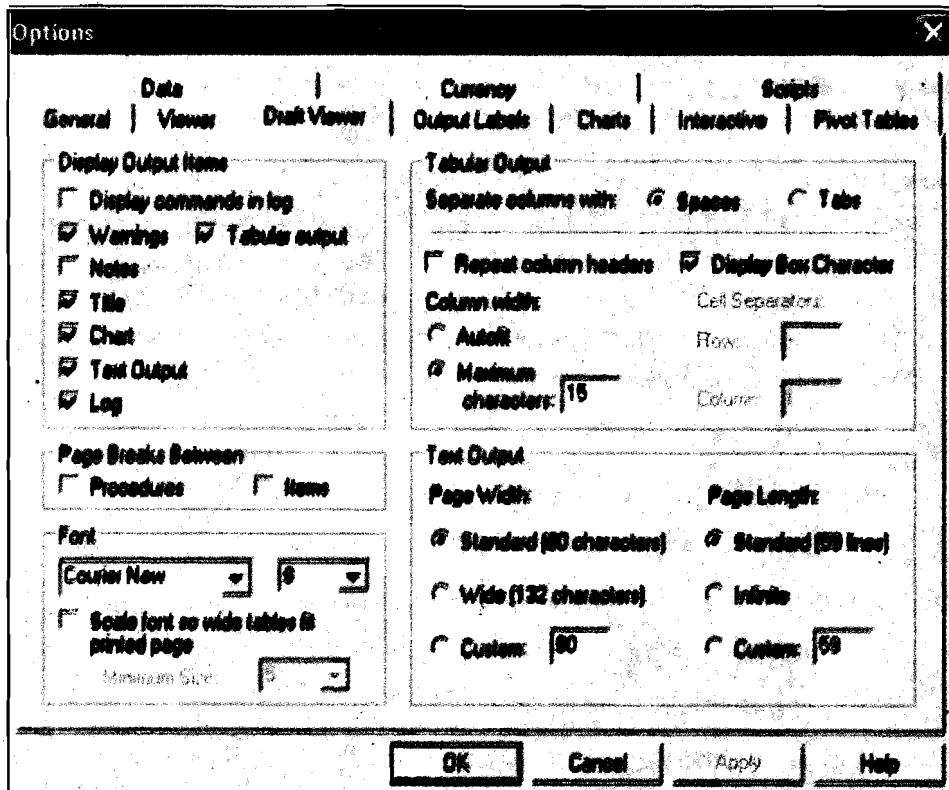

Figure 31.18 Options

The Draft Viewer is designed to display space-separated output in a fixed pitch font. If you want to copy the output to some other application such as MS Word document, select **Tabs** for the column separator. For

this, check mark the **Tabs** button against Separate Columns Width in the options dialog box. With this selection, you can use any font that you want in the MS Word like applications and set the tabs to align output properly. However, tab separated output will not align properly in the Draft Viewer. You can change the font type and their sizes in the Options dialog box. For this select the font type in the list box Under Font and then the size in the next list box. To print or save the Draft output follow the steps explained in earlier Unit on SPSS.

**Figure 31.19
Draft output
before and after
setting
Cell separators
and Column width**

Pivot Tables

In SPSS many of the results from statistical procedures are displayed in default Pivot tables. The default labels produced may not display information as neatly or as clearly as one would like. With Pivot tables you can rearrange the rows, columns, and layers. Some of the options for modifying a Pivot table are:

❖ Interchanging rows and columns

❖ Moving rows and columns

❖ Creating multidimensional layers

❖ Grouping and ungrouping rows and columns

❖ Showing and hiding cells

❖ Rotating row and column labels

❖ Finding definitions of terms used

Accessing Output Definitions: Many of the statistical terms are displayed in the output. Definitions of these terms can be accessed directly in the Output Viewer. For example, double click **Case Processing Summary** pivot table. Right click **Valid** and select **What's This?** from the pop-up menu. Observe that the definition of **Valid** is displayed in a pop-up Window.

Figure 31.20 Case Processing Summary

Editing a Pivot Table
To edit a Pivot table, activate the table by double-clicking the table you
want to edit. Click a label or text or number you want to edit. The
menus change to display commands relevant for editing table attributes.
In addition, a table toolbar and a Pivoting Tray dialog box appear allowing
you to change the table attributes.

Figure 31.21 Output 2: SPSS Viewer

If the Pivoting Tray dialog box is not visible on the screen, select
Pivot?Pivoting Trays command from the menu bar. The Pivoting Trays
provide a way to move data between columns, rows, and layers.   The
Pivoting Tray contains three pivot icons representing layers, columns,
and rows. Move the cursor on one of the pivot icons to see what it
represents. The shaded area in the table indicates what will be moved
when you move that pivot icon. Also, when you move the cursor on a
pivot icon, a pop-up label will be displayed indicating what that icon
represents in the table. Drag an icon from one tray to another tray. The
table immediately changes the arrangements in the table. For example,
if you want to change the sex category from the row to column drag the
icon from Row tray to the Column tray.

Transposing Rows and Columns: Activate the table by double clicking the table. Select Pivot→Transpose Rows and Columns command on the menu bar. This will change all the columns to rows and rows to columns.

Sex distribution of persons * Marital status Crosstabulation				
Count				
Count	Marital status			Total
	Married	Unmarried	Widowed	
Sex distribution Male	6	6	2	14
of persons Female	7	4	5	16
Total	13	10	7	30

Sex distribution of persons * Marital status Crosstabulation			
Count			
	Sex distribution of persons		Total
	Male	Female	
Marital Married	6	7	13
status Unmarried	6	4	10
Widowed	2	5	7
Total	14	16	30

Figure 31.22 Transposing Rows and Columns

Changing the display order of rows and columns: The order of Pivot icons in dimension (row, column, layer) tray reflects the display order of elements in the pivot table. Drag the respective icons in each tray to the order you want (left to right or top to bottom).

Moving rows and columns: Activate the Pivot table by double clicking. Click the label for the row or column you want to move. Click and drag the label to the new position. Select Insert Before or Swap[©] from the pop-up menu.

Figure 31.23 Moving Rows and Columns

Grouping Rows and Columns: You can group a number of rows or columns in a table by inserting a group label. For this, activate the table by double clicking on it. Select the rows or columns you want to group together. Click and drag the mouse to select multiple cells containing row headings or column headings where you want to insert a row or column group heading. Select Edit?Group command on the menu bar. A group label is automatically inserted. Double click the group label to edit the label text. If you want to add a new row or column to an existing group, you should first ungroup the items currently in the group and then create a news group that includes the new items. To ungroup rows or columns you should remove the group labels. For this, select the group label by clicking anywhere in the group label for the rows or columns you want to ungroup. Select Edit→Ungroup command on the menu bar. This will automatically delete the group label.

Rotating Labels: You can rotate either the inner most column labels or outer most row labels. For this activate the Pivot table. Select Format→Rotate Inner Column Labels command for rotating innermost column labels or Format→Rotate Outer Row Labels for rotating outer most row labels.

Sex distribution of persons * Marital status Crosstabulation Count				
	Marital status			
Count	Married	Unmarried	Widowed	Total
Sex distribution Male of persons Female Total	6 7 13	6 4 10	2 5 7	14 16 30

Sex distribution of persons * Marital status Crosstabulation Count				
	Marital status			
	Married	Unmarried	Widowed	Total
Sex distribution Male of persons Female Total	6 7 13	6 4 10	2 5 7	14 16 30

Figure 31.24 Rotating Labels

Creating and Displaying Layers: Layers can be useful for large tables with nested categories of information. By creating layers, you can simplify the look of the table, making it easier to read. Layers work best when the table has at least three variables. Activate the table by

double clicking it. Drag an icon from the Row tray or column tray into the Layer tray. Each layer icon has left and right arrows. The visible table is the table for the top layer. To view the different layers, you can either click the arrows on layer icon or select a layer from the drop-down list in the table.

Hiding cells: You can hide many types of cells in a table:

a) Dimension labels
b) Category labels without hiding the data cells
c) Label cell and data cells in a row or column
d) Footnotes, titles, and captions

To hide rows and columns in a table, select View-Hide on the Pivot Table menu bar or right click the highlighted row or column to show the pop-up menu and then choose Hide category from the pop-up menu.

To show the hidden rows and columns in a table, select another label in the same dimension as the hidden row or column. For example, if the Male category of the Gender distribution is hidden, click the Female category. Select **View→Show All Categories** in Gender command on the menu bar or select **View→Show All** command on the menu bar. This command displays all hidden cells in the table.

To hide (or show) a dimension label, activate the pivot table. Select the dimension label or any category label within the dimension. Select **View→Hide** (or **Show**) **Dimension** Label command on the menu bar to hide (show) the selected dimension label.

To hide or show a footnote in a table, select the footnote and then select View?Hide (or Show) command on the menu bar to hide (or show) the selected footnote.

TableLooks: You can change the appearance of a table either by changing
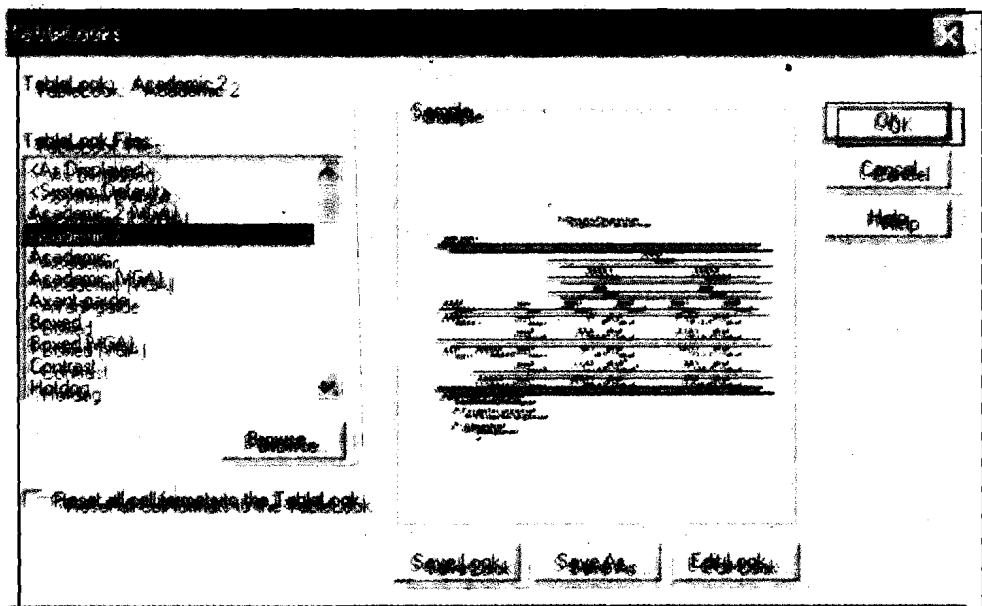
Figure 31.25 TableLooks

table properties or by applying TableLook. Each TableLook consists of a collection of table properties, including general appearance, footnote properties, cell properties, and borders. You can either select a preset TableLook or create and save a custom TableLook of your own. To apply a preset TableLook to your table, activate the pivot table by double clicking the table. Select **Format→TableLooks...** command on the menu bar. The **TableLooks** dialog box appears on the screen. Select a TableLook from the list of files under **TableLook Files**. Click **OK** button to apply the selected pivot table.

To edit a selected TableLook or to create your own TableLook, select a TableLook from the list of files as explained above. Click **Edit Look** button. The **Table Properties** dialog box appears on the screen. Select the appropriate options in the menu to adjust the table properties for attributes you want. Click **OK** button in the Table properties dialog box. Click Save Look to save the edited Table Look or click **Save As** to save it as a new TableLook. Note that editing a TableLook affects only the selected pivot table. An edited TableLook is not applied to any other labels that use that TableLook unless you select those tables and reapply the TableLook.

The Table properties dialog box allows you to set general properties of a table, set cell styles for various parts of a table, and save a set those properties as a TableLook.
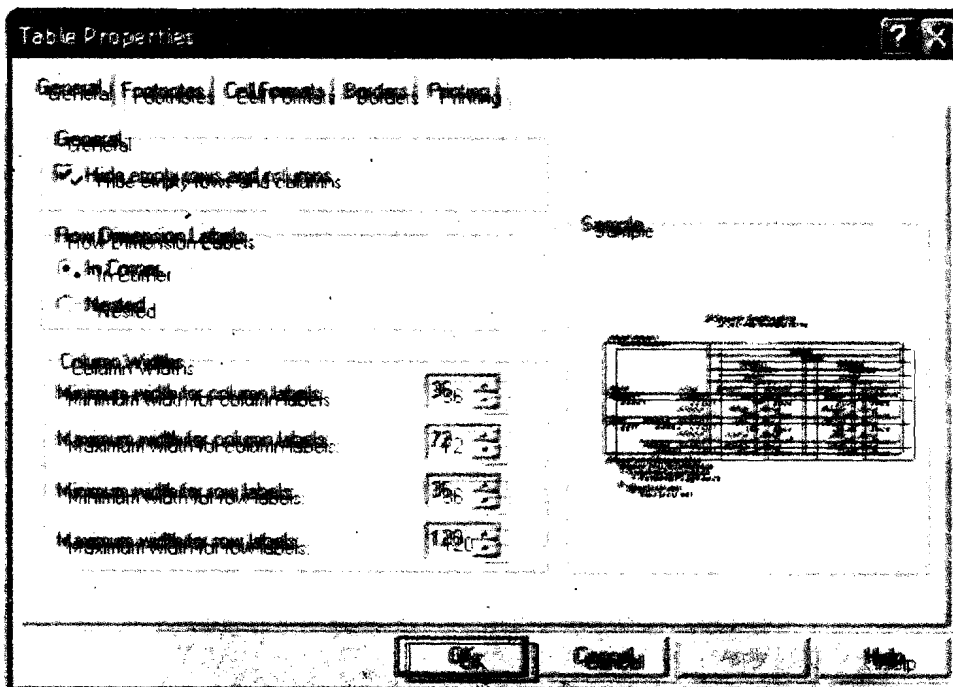

Figure 31.26 Table Properties

Using **General** tab on the Table Properties dialog box, you can control general properties of the table such as hiding empty rows or columns and adjusting printing properties.

Click the **Footnotes** tab to control the format and the position of footnote markers.

Click **Cell Formats** tab to determine specific formats for cells in the data area, for row and column labels, and for other areas in the table.

Click **Borders** tab to control the width and column of the lines forming the borders of each area of the table.

Click **Printing** tab to control printing properties.

Reflection and Action 31.3

You have just learnt the while working with SPSS output, it is possible carry out several activities like browsing through the results, show or hide selected table/ text/ charts etc.Write answers of the following questions.

How do you transpose the rows and columns of a table? What are the steps involved in it?

Can it be possible to hide some results in SPSS Output Viewer without being deleted? If so what are the steps to hide the selected results?

What dialog box will help you in changing the look of a Pivot Table. What are the general properties you can control using this dialog box?
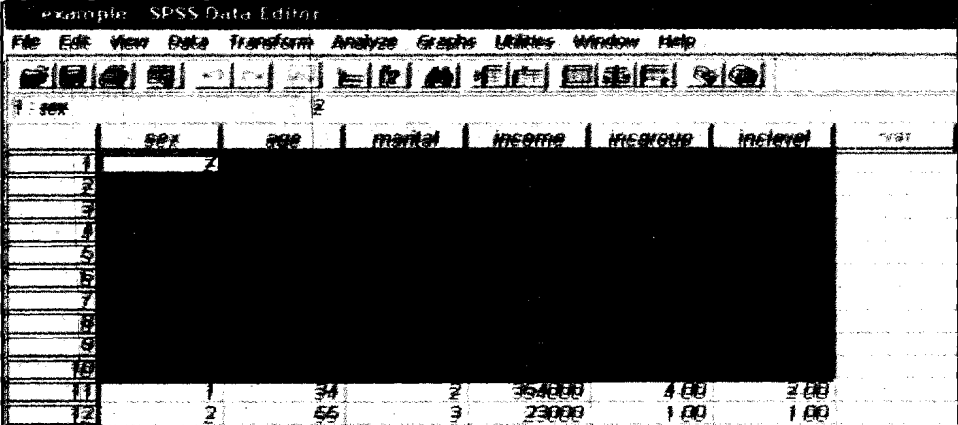

31.5 Copying SPSS Output to MS Word Document

If you want to include some or all of your tables and charts generated by SPSS into your report, you can copy and paste them from the SPSS Viewer window into a Word document. The basic procedure is same for copying data from the Data Editor and text, tables, and charts from Output Viewer window.

1)   Copy the text, table, or chart from the SPSS Output Viewer window to the Windows Clipboard. Or copy the data from the SPSS Data Editor to the Windows Clipboard.

2)   Paste the copied data/text/table/chart to the Word document from the Windows Clipboard.

This means, while copying and pasting the data/output, the respective, program should be open.

Copying Data from SPSS Data Window

Figure 31.27 Example: SPSS Data Editor

To copy the data from your SPSS Data Editor into your Word document, follow the steps given below:

1) Start the SPSS program. Open the data file (with extension .sav) using the Data Editor. Select the data area (rows and columns) you want to copy.

2) Select **Edit→Copy** command from the menu bar of SPSS Data Editor Window. The data is now copied to the Windows Clipboard.

3) Start the Word program. Open the Word document where you are typing your report and want to copy the selected data. Select the page and paragraph. Position the insertion point by clicking the mouse.

4) Select **Edit→Paste** command from the menu bar of Word window. The data is now copied from the Windows Clipboard to your Word document at the insertion point.

Or

Select **Edit→Paste** Special command from the menu bar of Word window. The **Paste Special** dialog box appears on the screen. Select **Unformatted Text** under As: and then, click **OK** button. The data is now copied from the Windows Clipboard to your Word document at the insertion point.
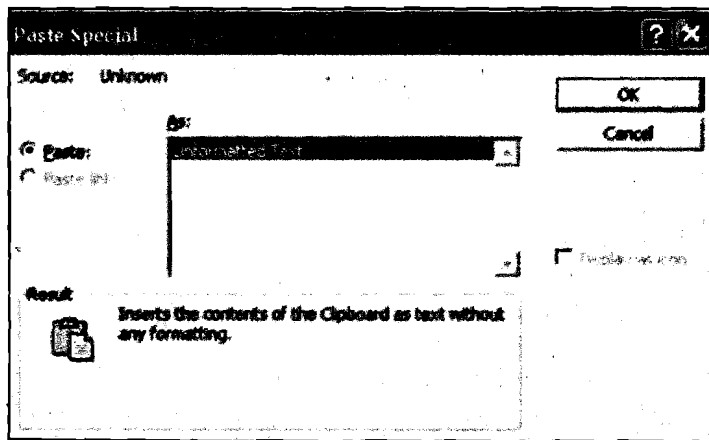
Figure 31.28 Paste Special

You can edit the data or reformat the settings if needed in your Word document.

2	24	1	150000	3.00	1.00
1	52	1	345000	4.00	2.00
2	65	3	45000	1.00	1.00
1	35	3	245000	4.00	2.00
1	42	1	23000	1.00	1.00
1	25	1	670000	5.00	2.00
2	23	2	345000	4.00	2.00
2	63	1	156000	3.00	2.00
1	41	2	65300	2.00	1.00
2	48	1	150000	3.00	1.00

Figure 31.29 Data as Copied from SPSS Data Editor
into Word Document

Copying Text or Tables from SPSS Output Viewer

We will explain here the following three formats: (a) Picture, (b) Formatted Text (RTF), and (c) Unformatted Text. For clarity, we will also explain the steps involved in three stages: (a) selection, (b) copy, and (c) paste. Also, you can either copy multiple items or single items.

Stage-1: Select Items (Text/Tables/charts) from SPSS Output Window

Start the **SPSS** program. Open the data file (with extension .sav) using the Data Editor. Perform the statistical procedure to generate the output. As you have seen in the earlier Unit the output will be generated in the SPSS Output Viewer window.

If you have already generated the output and saved in a output file (with extension .spo) open the output file by selecting **File→Open→Output...** command on the menu bar of SPSS Data Editor.

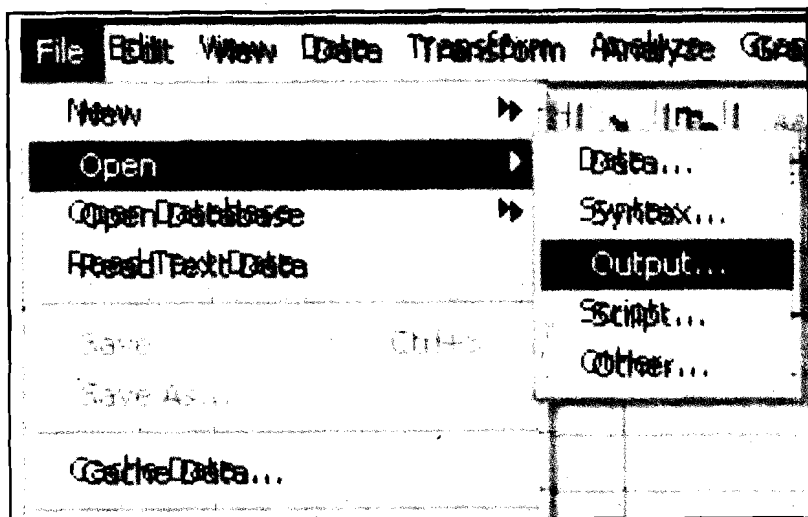**Figure 31.30 Selecting Items from Menu Bar of SPSS Window**

In the Outline Pane of the Output Viewer window, select either **single** individual item (table/text/chart) or **multiple** items (tables/text/chart) you want to copy by clicking on the items. Now the Table(s)/text/chart(s) is (are) ready for copying.
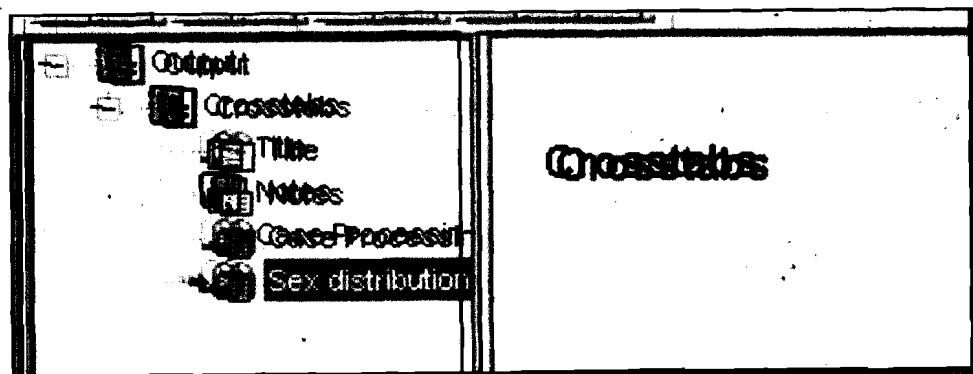

**Figure 31.31 Selecting Single Individual Item
from Menu Bar of SPSS Window**

Stage-2: Copy Item(s) (Text/Table(s)/chart(s)) from SPSS Output Window:

Copying Single Item: For copying a single item, after selecting the text/table/chart to be copied, select **Edit→Copy** command from the menu bar of SPSS Output Window. The selected item is now copied to the Windows Clipboard.

Copying Multiple Items: For copying multiple items (text/tables/charts) use the **Edit→Copy Objects** command on the menu bar. The selected items are now copied to the Windows Clipboard.

Stage-3: **Paste Item(s) (Text/Table(s)/Chart(s)) into Word Document**

Start the Word program. Open the Word document where you are typing your report and want to copy the selected item(s). Select the page and paragraph. Position the insertion point by clicking the mouse.

a)   Pasting Single Items

Text Item: If the item you are pasting is a **text item**, select **Edit→Paste** command on the menu bar. The text item is now copied from the Windows Clipboard to your Word document at the insertion point. You can edit the text item.

Table Item: If the item you are pasting is a **table item**, select **Edit→ Paste Special** command on the menu bar. The **Paste Special** dialog box appears on the screen. Now you have three options in the dialog box.
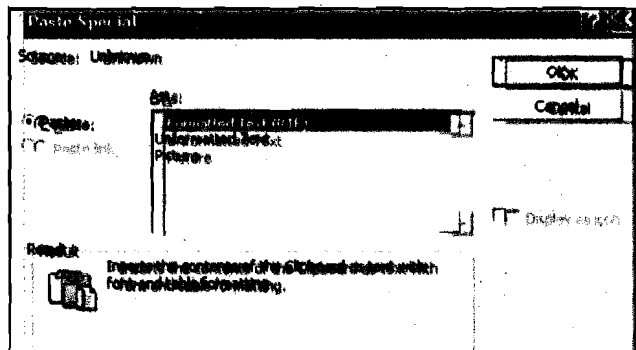

Figure 31.32 Paste Special for Pasting a Table Item

Table as Formatted Text (RTF): Select **Formatted Text (RTF)** under **As:** box in the dialog box. Click **OK** button. The table is now copied from the Windows Clipboard to your Word document at the insertion point. The advantage of copying the tables as formatted text is that you can edit the table or reformat the settings if needed in your Word document. However, you may have to do some setting if needed in the table to improve the table look.

Descriptive Statistics

	N	Minimum	Maximum	Mean	Std. Deviation
Sex distribution of persons	30	1	2	1.53	.507
Marital status	30	1	3	1.80	.805
Valid N (listwise)	30				

Figure 31.33 Descriptive Statistics in Formatted Text

Table as Unformatted Text: Select Unformatted Text under As: box in the dialog box. Click OK button. The table is now copied from the Windows Clipboard to your Word document at the insertion point. You can edit the table if needed. However, you may have to adjust the tabs to set the columns to align properly.

Descriptive Statistics

	N	Minimum	Maximun	Mean	Std. Deviation
Sex distribution of persons	30	1	2	1.53	.507
Marital status	30	1	3	1.80	.805
Valid N (listwise)	30				

Figure 31.34 Descriptive Statistics in Unformatted Text

Table as Picture: Select Picture under A box in the dialog box. Click OK button. The table is now copied from the Windows Clipboard to your Word document at the insertion point. The table is copied as an independent graphic clip, so the text in the table can no longer be edited by you in the Word document. The layout, font size, style, and any box characters will automatically be preserved. The graphic can be resized and positioned on a page within Word document. However, information is lost when editing the graphic in Word. Therefore, if you want to change the titles or labels or other formatting of text/table, it will be better you do it in SPSS Output Viewer Window as we explained in section 32.3.

Descriptive Statistics

	N	Minimum	Maximum	Mean	Std. Deviation
Sex distribution of persons	30	1	2	1.53	.507
Marital status	30	1	3	1.80	.805
Valid N (listwise)	30				

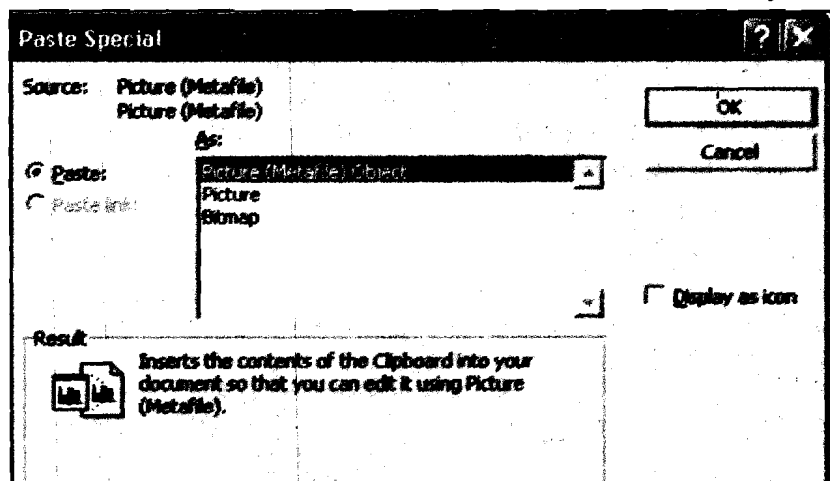Figure 31.35 Descriptive Statistics as 'Picture

Figure 31.36 Paste Special to Paste a Chart Item

Chart Item: If the item you are pasting is a chart item, select **Edit→Paste Special** command on the menu bar. The **Paste Special** dialog box appears on the screen. Now you have three options in the dialog box. Picture (Metafile) Object, Picture, and Bitmap. Whatever the option you choose, you cannot do any editing in the Word document except resizing. Therefore, we explain only Pasting as picture in this Unit.

Chart as Picture: Select Picture under **As:** box in the dialog box. Click **OK** button. The chart is now copied from the Windows Clipboard to your Word document at the insertion point. The chart is copied as an independent graphic clip, so the text in the table can no longer be edited by you in the Word document. The layout, font size, style, and any box characters will automatically be preserved. The graphic can be resized and positioned on a page within Word document. However, information is lost when editing the graphic in Word. Therefore, if you want to change the titles or labels or other formatting of text/table, it will be better you do it in SPSS Output Viewer Window as we explained in section 32.2.

a) Pasting Multiple Items:

To paste multiple items, first select multiple items (as explained at stage-1) and then copy items (as explained at stage-2), select **Edit→Paste** command from the menu bar of Word window. The objects are now copied from the Windows Clipboard to your Word document at the insertion point.

The text items are copied as **Formatted Text** and therefore you can edit the text items. However, each table and/or chart item will be pasted as individual Objects (Picture). Each object can be resized and positioned on a page within Word document. However, information is lost when editing the graphic in Word. If you want to change the titles or labels or other formatting of table or chart, it will be better you do it in SPSS Output Viewer Window as we explained in section 32.2 and 32.3.

> **Reflection and Action 31.4**
>
> Section 31.5 has explained how to copy items generated by SPSS into your report that is in MS Word. Answer the following questions.
>
> What are the three major stages in copying the SPSS output into your Word document?
>
> Suppose you want to copy a chart from SPSS output window into the Word document. Write the steps involved in it.

31.6 Conclusion

Presentation of text, tables, and charts that you have generated using SPSS statistical procedures in your report is very important. This is because you can make your report more readable, analytical, and communicable to the reader/ audience. The graphical presentation of data is one of

the significant ways analysing the information in a more meaningful way. Using SPSS you can create a number of different types of charts. In this Unit we have introduced you to how to create and edit a simple pie chart and bar chart. Like your word processor program, most of the commands in SPSS are simple, interactive, and routine. By trying to create other charts you will be able to master the SPSS program.

Using the Output Viewer window, you can edit and improve the look of your tables. You can change the order of tables, insert new text, delete or add items, print output, and copy the output to your report document in MS Word. Use the Draft Viewer Window and change preset options to improve the table look as per your needs before you run a procedure. The Pivot Tables are more interactive. With pivot tables you can access the definitions of the statistical terms used in the tables. This will help you in interpreting the statistical results. You can also, reformat the tables by transposing the columns and rows, changing the order of rows or/and columns, show or hide cells, group or ungroup the row and column labels.

The section on copying the text/tables/charts from SPSS Output Viewer Window to your MS Word document will help you to copy results directly to your report without being typed again. This will save you a lot of time and eliminate the possibility of errors in typing your report.

Remember that there are many statistical procedures (from basic to advanced) available in SPSS. We did not cover all of them here as the objective in this course is only to introduce SPSS to the students.

Further Reading

Davis, J. 1984. Data into Text. IN R. F. Ellen (ed.) *Ethnographic Research: A Guide to General Conduct.* Academic Press: London, pp. 295-318 (especially sections 9.4 to 9.4.5 from page 308 to 314)