Suggested Exercises for Creating Charts

Introductory activity

Displaying information in charts

It would be helpful to have a display of different types of chart, with labels identifying key features.

Review the tree basic kinds of chart, using printed examples. Establish what information is best conveyed by each kind of chart.

This should be a brief activity, to allow students to spend plenty of time on creating a pie chart.

Exercise One

Possible activity for session plan one in the suggested scheme of work

Creating a pie chart.

You will need to prepare a small spreadsheet or a CSV file for students to load into a spreadsheet- in advance. You could use one of the spreadsheets from the core module, a file from the database operations module, or create a new one.

Examples of pie charts and suggested file content

- total number of visitors using each of the rides at a theme park during one day (new file needed)
- number of different products from each manufacturer (using the data from 'Souvenir shop', exercise one, Database Operations module)
- number of different cars from each manufacturer (using the data from 'Car hire', exercise one, Database Operations module)
- percentage of customers from each town/postcode (using the data from 'Mail order', exercise one, Database Operations module)
- percentage of customers with a particular interest (using the data from 'Mail order', exercise one, Database Operations module)

The instruction sheet should also include details on saving and printing the chart.

Exercise Two

Possible activity for session plan two in the suggested scheme of work

Creating a bar chart.

Bar charts are good for comparing data, such as test scores for boys versus girls, or stock market performance for two or three different types of company, or quarterly profits for a company over two or three years.

You will need to prepare a small spreadsheet or a CSV file for students to load into a spreadsheet in advance. You could use one of the spreadsheets from the core module, a file from the database operations module or create a new one:

Examples of suggested files, and possible bar charts you could create:

- attendance figures each month over the last two years for a theme park /cinema/ theatre. Compare **attendance figures** (the value axis label) for the same **month** (the category axis label) in each of the two years
- sales figures each month over the last two years for a small business. Compare **sales figures** (the value axis label) for the same **month** (the category axis label) in each of the two years
- weather data for each month of a year for two resorts (using the data from Exercise 16 of the Core module). You could choose one category of information and look at one resort or compare the values for each of the resorts over the course of a year
- test results for a class in several subjects. If you use the categories suggested in Exercise One (Database Operations module) and import the data into a spreadsheet, you could ask students to calculate average % marks for each subject and display **Subject** as the category axis label, with **Average %** as the value axis label. (This will give a single bar for each subject)
- as above, but introduce a new category – Male /female (or boy/girl) – so that this time you can compare the performance of boys and girls in each subject

The instruction sheet should also include details on saving and printing the chart.

Exercise Three

Possible activity for session plan three in the suggested scheme of work

Creating a line graph.

You will need to prepare a small spreadsheet or a CSV file for students to load into a spreadsheet in advance. You could use one of the spreadsheets from the core module, a file from the database operations module, or create a new one:

Examples of suggested file content:

- attendance figures each month over the last two years for a theme park /cinema/ theatre
- sales figures each month over the last two years for a small business

In each case, the category axis label would be **Month, Year**. The value axis label would be **Attendance** or **Sales**.

You could also ask students to produce quarterly attendance/sales figures before producing appropriate charts.

The instruction sheet should also include details on saving and printing the chart.

Exercise Four

Possible activity for session plan three in the suggested scheme of work

Creating a comparative line graph.

To do this, you could use the file from Creating Charts Exercise Three and add attendance figures/sales figures for a second venue or business over the same period.

The instruction sheet should also include details on saving and printing the chart.

Exercise Five

Possible activity for session plan four after practice paper

Individual progress review

You could print out a sheet with tick boxes or gaps to enter information or prepare a template for students to edit and enter information on, similar to the one outlined below:

Individual progress review

Name: (student to enter, in bold)
Date: (student to enter)

These are the activities you should/ could have completed so far. Place a number to the right of each activity to show what you have completed: 2= completed, 1= started but unfinished, 0= not done.
List of activities

The list below shows the things you should be able to do
List (*NB tutors: these will be the performance criteria expressed less formally, perhaps in 'I can' type statements*).

Give each statement/description a number showing how well you can do it:

I can do these independently and well = 3

I need some help with these / I'm not very confident with these yet = 2

I need help with these = 1

I haven't done these = 0