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Tips for tables

Many posters will contain tables of data. These can be quite hard work to understand in a hurry, so here are a few tips to make them as simple as possible for your readers.

Make the table and its caption tell a self-contained story

Each table should deal with a specific aspect of the research question, representing just one key idea or message.

Keep tables simple and do not overwhelm readers with information

Most people (except your closest colleagues or competitors) will not have the time or patience to read very complex tables. Do not try to pack too much data into one table – you do not have to include every variable that you measured. Think about which data are really needed to make your point. Ideally, try to have no more than seven rows (including the header rows) and five columns in a table.

Use a figure in preference to a table

Readers of posters have little time to devote to reading your table, so it is usually better to use a figure if it would do the same job just as well. Research suggests that the average reader prefers information to be displayed graphically where possible.

Use a table where you need to show detailed numerical information . . . There are times when readers need to see precise numbers or detailed statistical information, in which case a table allows you to compress a lot of information into a small space. However, you may also consider combining the best of both approaches by adding key values to line graphs and bar charts.

. . . Or to display discontinuous variables

Tables may be needed if you are comparing very different kinds of information between groups. For example, if you want to show baseline data, such as sex, age, weight, smoking history and concomitant diseases, for two groups of participants in a clinical trial, you will need a table.

Choose a consistent style for tables within the poster

In contrast to a scientific paper, where the journal dictates how to format tables, there is no standard format for tables in a poster. PowerPoint offers a wide variety of table styles that you can adapt to suit your needs. If you have several tables on the poster, they should have a similar appearance. Think about aspects such as the number, width and colour of lines; the width of columns and the depth of rows; whether you require vertical lines as well as horizontal lines; the fonts and type sizes used; and the colour and shading of the main row and column headings.

Do not import tables directly from word processing packages

Tables formatted beautifully in a word processing package often lose all their formatting and become difficult to manipulate when transferred directly into PowerPoint. It is usually best to create your table within PowerPoint if possible.

Do not 'cut and paste' tables from previous posters, PowerPoint slide sets or papers

Always create exactly the table that you need for this poster. Do not think 'Here's one I prepared earlier'. It is likely that the original will not be in the correct format for your poster, and is unlikely to contain exactly the data that you need to tell the story of the poster that you are writing today. Tables cut and pasted from .pdfs of papers are often blurred when imported into PowerPoint, so will affect the look of your poster.

Give each table an appropriate caption

Readers should be able to understand the table without looking at the main text of the poster. Often, the table caption will include important information such as independent and dependent variables and the material, species or patients studied. Thus a typical table caption might be '*Table 2. Effect of age, sex and nationality on poster design preferences of postgraduate students in a worldwide multicentre study*'.

Consider whether you can put some experimental methods into the table caption

Putting some of the experimental detail in the table caption rather than in the methods section may save space and make the table and its caption easier to understand as a self-contained unit. If you do this, make sure that your caption is no longer than three lines, or the reader may lose interest.

Keep the table layout clear and uncomplicated

Readers do not have much time to devote to each table on your poster, so it is important that they can find the main points as quickly as possible. Consider highlighting key points with colour or bold type.

Avoid too many gridlines

When you set up a table in PowerPoint, the default is to show all borders around individual cells. Too many lines distract the eye and make the table harder to read. Remove all but the most essential lines. In PowerPoint 2007, double-clicking on the table will bring up 'Table Tools'; you can then click on 'Design' and adjust the borders. The main horizontal lines should be at the top and bottom of the table and under the heading. It is often unnecessary to have vertical lines within the table (see Table 14.1, below), though you may decide to have lines at the extreme right and left of the table to make it into a box.

Distinguish row and column headings visually

There are many ways of making headings within a table stand out for ease of reading. For example, you could use bold type, a background colour, or light type on a dark background.

Keep column and row headings short

Think about the shortest form of words that you can use to prevent the table being unnecessarily wide. If needed, headings can occupy two lines.

Where applicable, column and row headings should include units of measure

Units of measure are usually given in brackets after the category, e.g. weight (kg). For SI units, there is no need to define abbreviations. However, any unusual abbreviations for units should be defined in a footnote underneath the table.

Align the column and row headings consistently

A common style is to align the row headings flush left and to centre the column headings. The contents of the columns are then aligned on the decimal point. However, it is also possible to left align both the column headings and the contents, especially if the contents are not numerical data, but words or symbols. Whichever system of alignment you choose, it is important to be consistent within and between tables. This makes the poster more visually pleasing and professional.

Numbers are normally aligned on the decimal point in a column

Thus, your table may look like this:

Table 14.1 Favourite hot drinks among postdoctoral researchers at three UK universities (data collected using the Beverage Research Questionnaire)

Favourite drink (% respondents)	Oxford	Cambridge	Manchester
Coffee	53.5	47.2	44.6
Tea	23.5	23.8	25.4
Chocolate*	15.1	29.0	26.0
Other [†]	7.9	0.0	4.0

*including cocoa;

[†]including milk (from any animal, or soy milk) and hot water

Did you notice something about this table, however? The data could just as easily have been displayed as 100% bars (*see* Chapter 16), which would be visually much more interesting.

Arrange tables so that important comparisons are made from left to right . . .

Most readers are accustomed to reading tables from left to right, not top to bottom. This makes the table easier to read and understand.

. . . And present experimental data followed by control data

If you are comparing an experimental dataset with controls, the convention is to put the experimental data first (in the left-hand columns) and the control second (right-hand columns). Make sure that you stick to this convention for all tables to help the reader quickly assess the information that you are presenting.

Give row headings and subheadings a logical order

Rather than just putting your row headings down in the order you first thought of them, think about what order will make the data easiest to interpret. If you have many row headings, grouping them will make the data easier to understand. For example:

- Coffee
 - Instant
 - Filter
 - Espresso
 - Cappuccino
- Tea
 - Black
 - Green
 - Herbal

Indented subheadings can be difficult in PowerPoint

You cannot use tabs in PowerPoint to create standard indents. Avoid the temptation to use the space bar, as this can result in inconsistencies. Use the 'Ruler' function in PowerPoint to set a standard distance for each indent.

Use colour, shading or bold text to highlight key areas of the table

If the table is complex, consider emphasising the most important parts. For example, if your table has rows giving data for many outcomes or variables, you might want to highlight the most important by putting the numbers in bold or in a different colour or by applying a background tint to the whole row.

Choose units that take up as little space as possible

Think about which units of measure will make the most concise table. Choose units that eliminate unnecessary zeros – for example, 1.3 kg is better than 1300 g. Likewise, 13 mg is better than 0.013 g. However, it is also important for units to be consistent, so you may have to allow space to accommodate precise measurements that range from very large to very small. Consider rounding numbers up or down to make them simpler to understand.

Be consistent with decimal places . . .

Use the same number of decimal places in all values for one variable. Use the same number of decimal places in standard deviations, errors or confidence intervals as in the mean.

. . . And do not use excessive decimal places

Ask yourself how accurately you measured each variable, and do not give numbers down to several decimal places if it is not really relevant. For example, it is usually acceptable to give mean values rounded up or down to the same number of decimal places as the individual numbers used to calculate them.

Avoid irrelevant detail . . .

People will not have time to study all the data in your poster in detail, so consider simplifying the content to make it easier to understand. Not every variable you measured needs to be displayed.

. . . And information that does not aid understanding

For example, if you have demographic information, giving the percentage of male patients is sufficient. It can be assumed that the others were female!

Include standard deviations, confidence intervals and p values where appropriate

Include all the statistical information necessary to allow readers to draw appropriate conclusions about your data. You could give p values in a separate column or save space by using asterisks, which are then defined in footnotes. A standard series is * $p < 0.05$; ** $p < 0.01$; *** $p < 0.001$.

Make sure that columns of numbers add up correctly

Check that columns that are supposed to add up to 100% or the total sample size do so. If parts of the sample are missing for some reason, or if they appear in more than one place, explain this in a footnote.

Refer to your tables in the text

Even though your table and its caption form a self-contained self-explanatory unit, it is customary to refer to it in the text of the poster (e.g. Table 1). That way, if people are reading the text in detail, it will be easier for them to find the relevant table. Although tables should ideally be close to related text, layout considerations sometimes mean that they cannot be immediately adjacent.

Make sure all data given in tables coincide with values in the text

If any of the numbers in a table are mentioned in the text, they must match each other.

Think about whether you should give actual data as well as percentages . . .

Percentages help readers to make instant comparisons when the sample size varies between groups. However, many readers would like to know the actual numbers as well. If so, it is often best to give percentages with the actual numbers next to them in brackets in the same column, i.e. 50% (24/48).

. . . As percentages alone can be misleading

If you see a percentage value of 50%, you might have different views on the data if you discovered that this was 50% of a sample of two rather than 50% of a sample of 300.

Define any non-SI abbreviations or symbols used in footnotes

Readers do not want to search through your poster looking for the meaning of abbreviations, so it is usually best to define them in a footnote to the table. Footnotes can be in small type so that they do not spoil the overall look of the table or take up too much space.

Try to avoid leaving cells blank unless absolutely necessary

An empty cell in a table leaves the reader guessing; if the value is zero, put 0, or if you have no value for that cell, put a dash or an abbreviation (for example n.d. for not determined). Make sure that you define the abbreviation in a footnote.

Remember that wide tables can cross more than one column in your poster

If the table works best over one-and-a-bit columns, you could consider putting the legend beside it rather than above it.