

Tables, Figures and Text: Presenting your Results in a Scientific Report

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Why is it important?

- A picture says more than a thousand words...
- ...but tables and figures (= *visual elements*) don't speak for themselves
- They must have a *connection to the text* in order to make sense.
- Tables and figures *complement* what you write in the text.

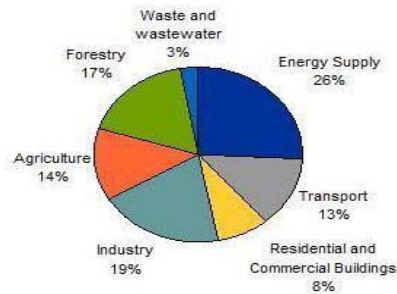
In today's seminar

- Different kinds of visual elements
- Writing the Results section: how to structure the text
- Referring to figures and tables
- Designing and referencing

Different kinds of visual information

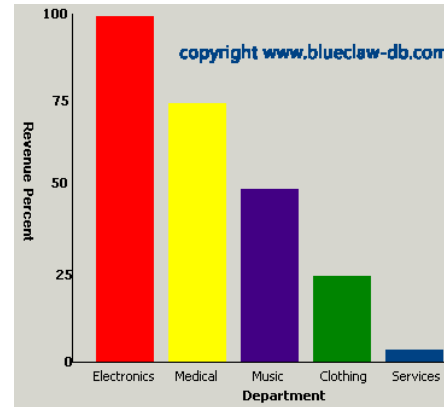
Pie chart

Global Anthropogenic GHG emissions by Sector (2004)

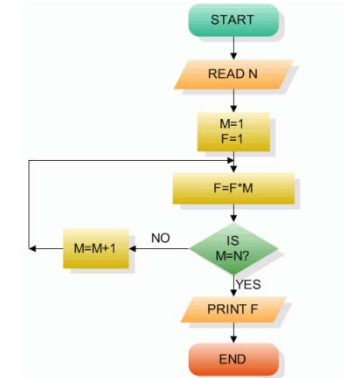


Source: IPCC Assessment Report 4 (2007), Summary of Policymakers: Figure SPM 3
*Forestry includes deforestation

Bar graph



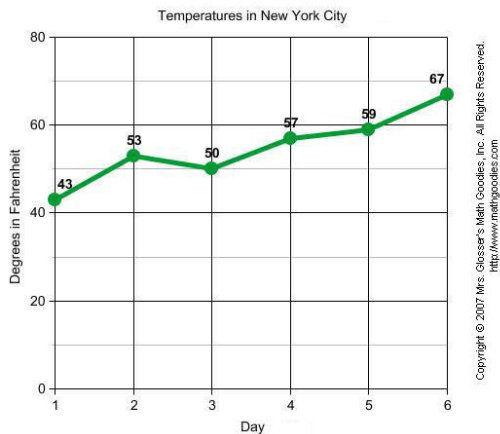
Flow chart



Photograph

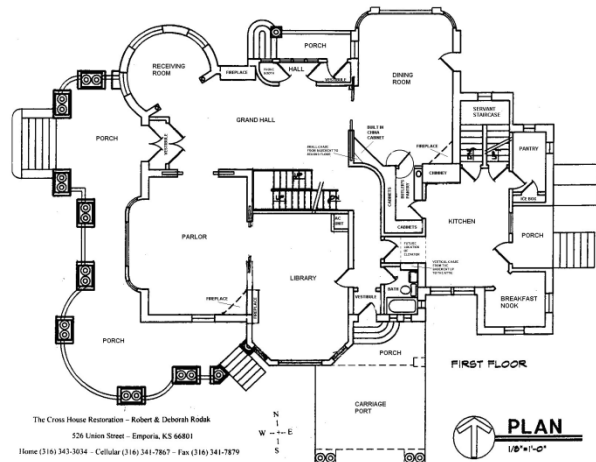


Line graph



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Drawing



Use the most appropriate visual element

What?	Why?
Photographs	Add authenticity Provide an overview or general idea
Drawings	Focus on important detail
Flow charts	Show processes
Tables	Present exact data Large amounts of data Present text (like in this table!)
Pie charts	Show (roughly) parts of a whole
Line graphs	Show changes over time
Bar graphs	Visualise discrete categories Show several parameters in one figure

But remember...

- Just because there are several types of figures to choose from, you don't have to use them all!
- Your choice should be relevant to what you want to say

Writing about Results

- Give an overall picture *first*, then move on to detail.
- Do not simply repeat what can be seen in the table or figure – help the reader to interpret.

How is the data interpreted for the reader in Examples 1 + 2 in your handout?

Writing about Results: saying intelligent things about your data

- Useful expressions when discussing, speculating, comparing

- *This trend is probably due to...*
- *One possible explanation is...*
- *These figures contradict Brown's (2007) theory...*
- *The results in Figure 5 are roughly similar to...*

Making comparisons

- Note these expressions:

- *Whereas X increased between the first and third hour, the rate of Y dropped steeply.*
- *It appears that Model A gives a more accurate picture **than does** Model B.*

Writing about Results

- Compare the Results section with the Introduction:
 - What are the aims of the report? What questions do you say you will answer?
 - Do you focus on these aims in your Results section?
 - Do you have to make changes in the Introduction?

What about unexpected findings?



- Should you simply sweep them under the carpet?
- No! Discuss them!
- *“Surprisingly, the data in Category A did not conform to our hypothesis. One possible reason is that...”*

Referring to visual information in the text

- 1) Number your visual elements! There will (in most cases) be two series: Figures and Tables.
 - If you have
 - three tables
 - two pie charts
 - one photograph
 - one line graphthese will be numbered Table 1, Table 2, Table 3 and Figure 1, Figure 2, Figure 3 and Figure 4.
- 2) Use these numbers in the text! (see next slide for examples)

Referring to visual elements in the text

Some useful expressions

- *Figure 5 provides an overview of the collected data.*
- *The results are summarised in Table 3.*

- *As illustrated in Table 7, the scores for X were very high.*
- *The results in Table 2 show that all experiments achieved higher...*
- *The scores for X were high in all experiments (see Figure 2).*
- *The scores for X were high in all experiments; see Figure 2.*
- *As discussed above (see Fig. 1), it is not the case that...*

- *If we look closely at the photograph provided (Fig. 2), we see that the left edge of the structure is...*

Proofreading

- *As seen in ~~the~~ Table 7, ...*

→ *As seen in Table 7...*

No *the* in these expressions

- *~~The~~ Figure 1 illustrates...*

→ *Figure 1 illustrates...*

- *... as shown in ~~Figure1~~ / ~~figure.1~~*

→ *... as shown in Figure 1.*

Blank space here!



Designing a figure (cf. p. 87 in handout 2)

Three distinct types of lines
(no risk for confusion)

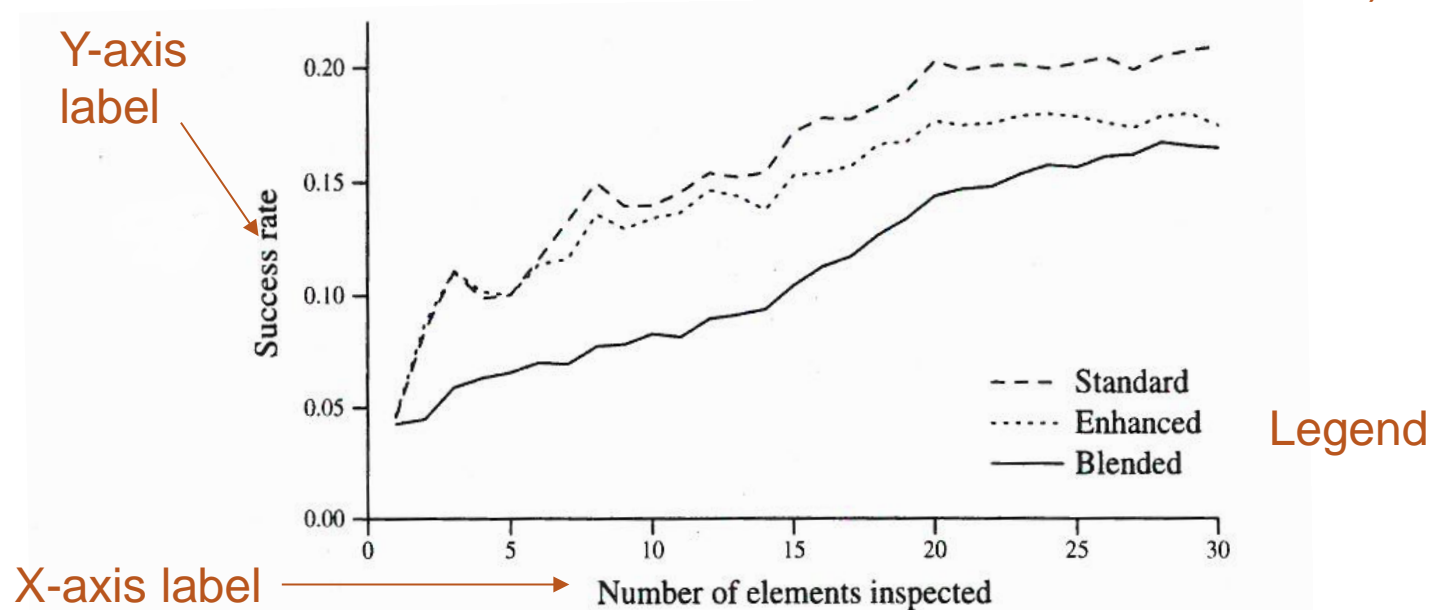


FIGURE 7. *Success rate as the number of inspected items is increased.*

Number

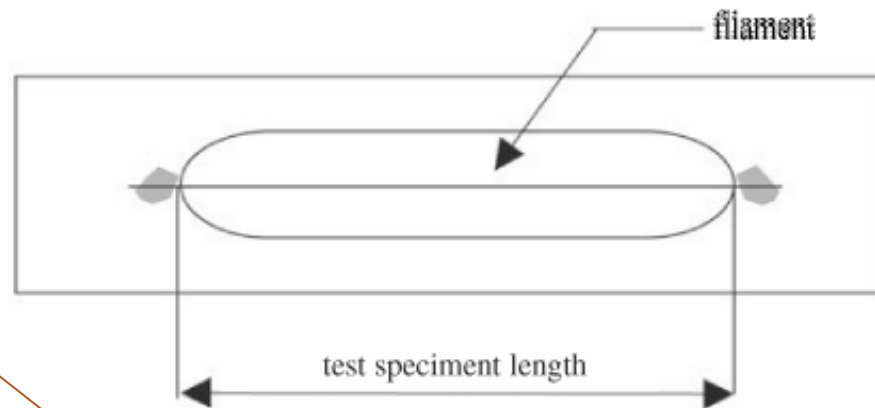
Caption = short description

Figure design:
Study the colour example in the handout.
What problems can you see?

Figure design:
Handout 2

Where to place the number and caption: *figures*

For **figures** (graphs, charts, drawings, maps, photos), the information appears **below** the figure.



Put a full stop or colon after the number

The label is sometimes in italics or bold.

Figure 1. Support tab for testing fibre filaments according to ASTM D 3379M¹.

You can choose whether to put a full stop at the end of the caption or not.

Where to place the label and title: *tables*

For **tables**, the information appears **above** the table

Table 3. Oxygen requirements of various species of *Streptomyces*

Organism	Growth under aerobic conditions	Growth under anaerobic conditions
<i>Streptomyces griseus</i>	+	-
<i>S. coelicolor</i>	+	-
<i>S. nocolor</i>	-	+
<i>S. everycolor</i>	+	-
<i>S. greenicus</i>	-	+
<i>S. rainbowenski</i>	+	-

You've been taught that references are crucial... ...but don't forget the visuals!

Reference all visual information that comes from another source.

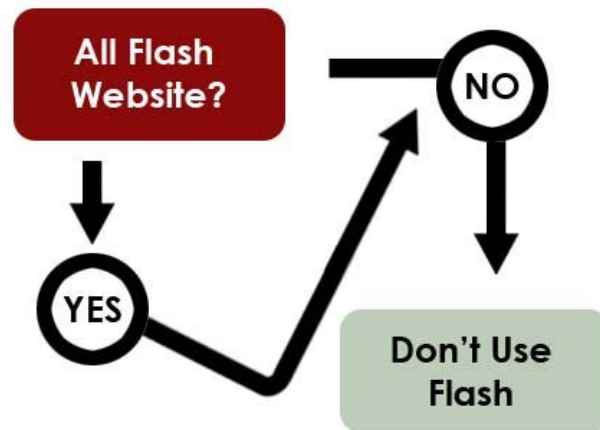


Figure 1. Website flash usage.
Flow chart **reproduced/adapted** from [1].

Figures from foreign sources

- Don't simply cut and paste! If you're writing in English, and the text on the figure you've chosen is in a different language:
 - Provide a translation (perhaps in the caption)
 - Re-design the figure in the right language, but remember to write **adapted from + the source** (not *reproduced*).

In sum:

- Don't simply present *data* in the form of a table or figure – you need to *comment on* and *discuss* your data in order for it to make sense to the reader
- Check that you've answered your research question
- General comment first, details later
- Number all tables and figures → use these numbers in the text!
- Make sure your figures and tables are readable and make sense
- Remember a reference, if needed

Stuck? Need more help?
Book an appointment with
the Centre for Academic Writing at

www.kth.se/caw

