Graduate School
Professional Development

Creating an Effective Poster Presentation

❧ ❧ ❧

Donna W Bailey
dbailey1@email.unc.edu
Center for Teaching and Learning
http://www.unc.edu/depts/ctl
The University of North Carolina at Chapel Hill
Chapel Hill, North Carolina 27599-3470
919-966-1289

Background

Poster sessions provide us with a great opportunity to interact, inform and develop networks of people with similar interests. It is one of several ways that scholars and professionals communicate their work. Often seen as a simple communication tool, poster sessions are far from simple if done effectively. They are more than gluing graphics and tables to a piece of cardboard. The purpose of this session is to actively work through the development of your poster session so that it is effective in communicating your desired message and facilitating the functions of informing the viewer, stimulating interaction and network development.

೫ ೫ ೫ ೫ ೫

Objectives

At the conclusion of this session, the participant will be able to:

1. Describe the process of poster development,
2. List the elements of an effective poster,
3. Begin the development of their poster, using the strategies and tools provided in the workshop.

Poster Development Process and Strategies

Conceptualization and RFP	- Identify material that you want to communicate in a poster session - Identify audience - Submit proposal
Acceptance	Review acceptance and poster requirement
Development	- Outline your poster - Collect materials with two goals in mind: - Selections are visually powerful - Selections are information dense - Experiment with visual layout - Put a prototype together - Decide on printing option
Review	- Find a critic - Make adjustments
Final Steps	- Proof poster before final printing - Create handout - Determine setup/takedown process
Post-event Review	- Evaluate the benefits/opportunities to improve from this audience and version

Elements of an Effective Poster

- Title

- Author(s)

- Affiliation

- Abstract

- Introduction

- Problem

- Methods

- Results

- Conclusions

- Acknowledgements

- References

- AUDIENCE

Organization and Layout

- General Appearance
    - Use of white space
    - Professional look

- Size
    - Amount of material
    - Elements are balanced in size and appearance

- Flow of material
    - Logic
    - Use of color, fonts, position

- Fonts
    - Readability
    - Cueing

- Color
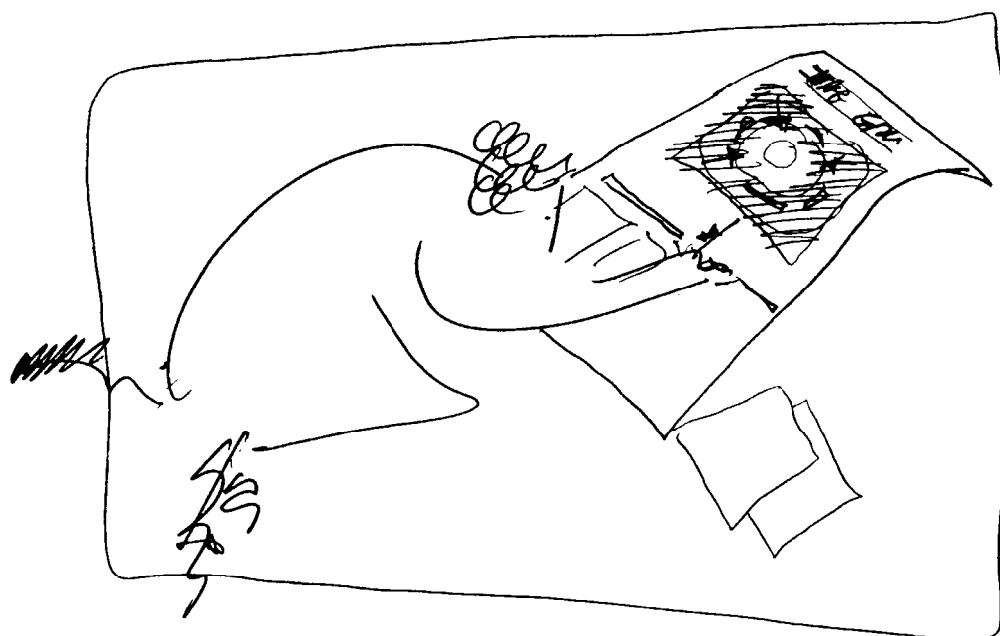   - Transparency
    - Cueing

- Aesthetic Considerations
    - Context
    - Audience management

- Handouts
    - Executive summary
    - Contact information

Effective Poster Design

A Step-by-Step Guide

Well done!

... your paper has been accepted for presentation at a conference poster session. It is neatly typed on 8 1/2 by 11" pages. Photographs, charts, tables, etc. have been made. Now all you have to do is buy some Bristol board to stick the whole thing on and you're all set...

... or is there a better way?

This guide to creating posters will take you through six important steps:

Step 1 - **Define your audience**
Step 2 - **Gather the content for your poster**
Step 3 - **Make a heading and statement for each section**
Step 4 - **Eliminate noise**
Step 5 - **Find your focus**
Step 6 - **Put it together**
      - **Create a poster on your computer**

Introduction

Presenting the information from your paper in a poster session is different from making a presentation before an audience or publishing your paper in a journal.

	Presenting your paper in a journal	Presenting your paper face to face	Presenting your paper as a poster
Time	• audience controlled • infinite	• 10 - 50 minutes	• 3 seconds to stimulate interest * • 30 seconds to convey overall concept • 2 - 5 minutes to provide enough information for further exploration
Place	• controlled by the audience	• in front of a captive audience	• in a room or hall with many other posters - audience on the move
Mode of Communi-cation	Visual • reading • print	Aural / Visual • pacing • body language • responsive to audience reaction • visual aids	Visual **How can you retain the advantages of the other presentation modes in your poster?**

* the success of your first 3 seconds will determine whether or not your audience will stay longer to explore the content at the next stage.

The Harsh Reality

At poster sessions there is intense competition for audience attention.

The room is filled with posters displaying a wealth of information and ideas.

How can you make sure that your poster will be noticed, let alone read?

The harsh reality is that you have less than three seconds to attract attention to your poster.

If you succeed in capturing the audience, you have another 30 seconds to convey an overall understanding of the problem/ process/ conclusion. If your audience is interested, they will spend additional time exploring the information you are presenting and may approach you personally.

A poster on display provides an opportunity for making valuable contacts and engaging in meaningful dialogue with colleagues. However, if your poster does not immediately grab people's attention, your efforts have been in vain.

The following guidelines are intended to help organize the ideas and information in your paper to create an effective poster design.

It may look like a lot of work – but the results are worth it!

Poster Noise

Define Your Audience

To ensure that your poster communicates as effectively as possible, it is very important to understand who your audience is.
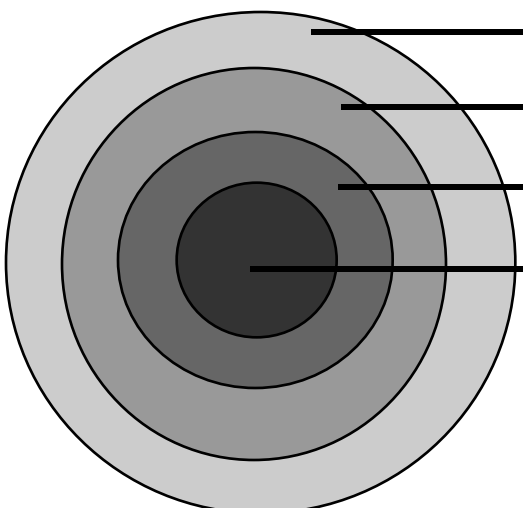
When you begin to design for your audience, consider the fact that :

- the audience may not have read your paper
- they have only a short time to spend looking at posters
- they may still be jetlagged
- they may be there mainly to network with their colleagues
- they may be short sighted
- they may be primarily colleagues (who may provide valuable suggestions, comments, insights and reactions to your findings)

or

- they may be the general public with less background information in your area of expertise.

Who is the audience for your poster?

the general public ☐

industry / government ☐

academics ☐

academics within your discipline ☐

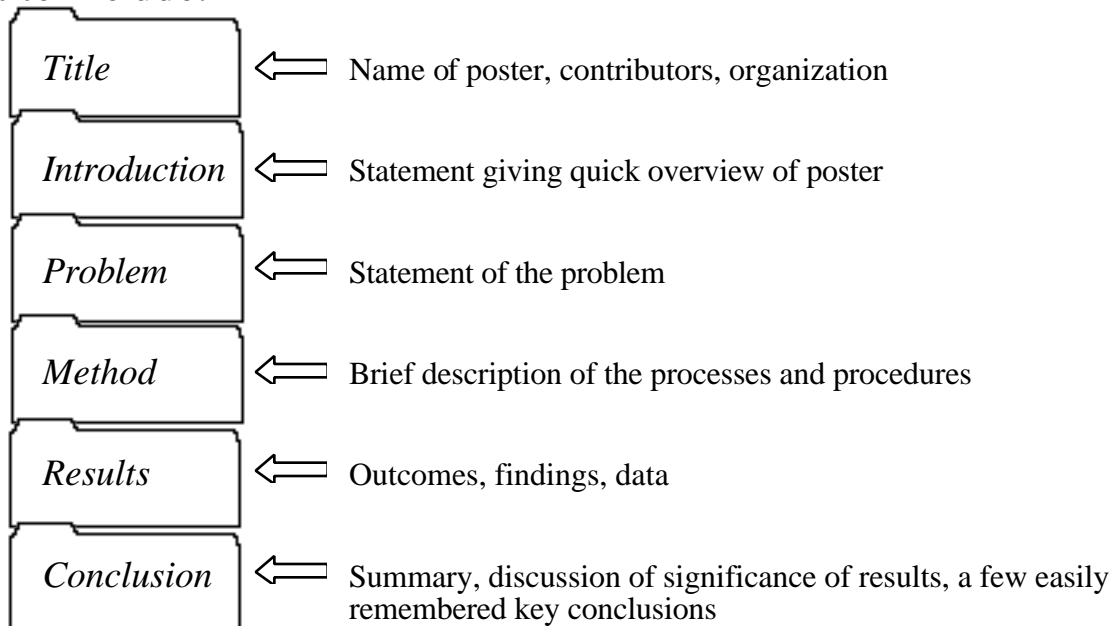Note: for maximum effectiveness in communicating ideas you should select **only one** audience.

STEP 2:

Gather the Content for your Poster

Divide the information you have into the following main sections (or use your own section headings) :

TITLE
INTRODUCTION
PROBLEM
METHOD
RESULTS
CONCLUSION

Hint: Use a separate file folder or envelope for each section and label it with the section heading. Place all the appropriate resources (copy, photos, illustrations, charts, etc.) in each folder. If something is incomplete or missing, add a reminder sheet to the folder.

What to Include:

Title   ⇐   Name of poster, contributors, organization

Introduction   ⇐   Statement giving quick overview of poster

Problem   ⇐   Statement of the problem

Method   ⇐   Brief description of the processes and procedures

Results   ⇐   Outcomes, findings, data

Conclusion   ⇐   Summary, discussion of significance of results, a few easily remembered key conclusions

Check the contents of each folder - *do you have all the relevant information?*
(if not, add reminder notes)

STEP 3:
Make a Heading and a Statement for Each Section

Take each of your folders and summarize the contents into 3 categories:
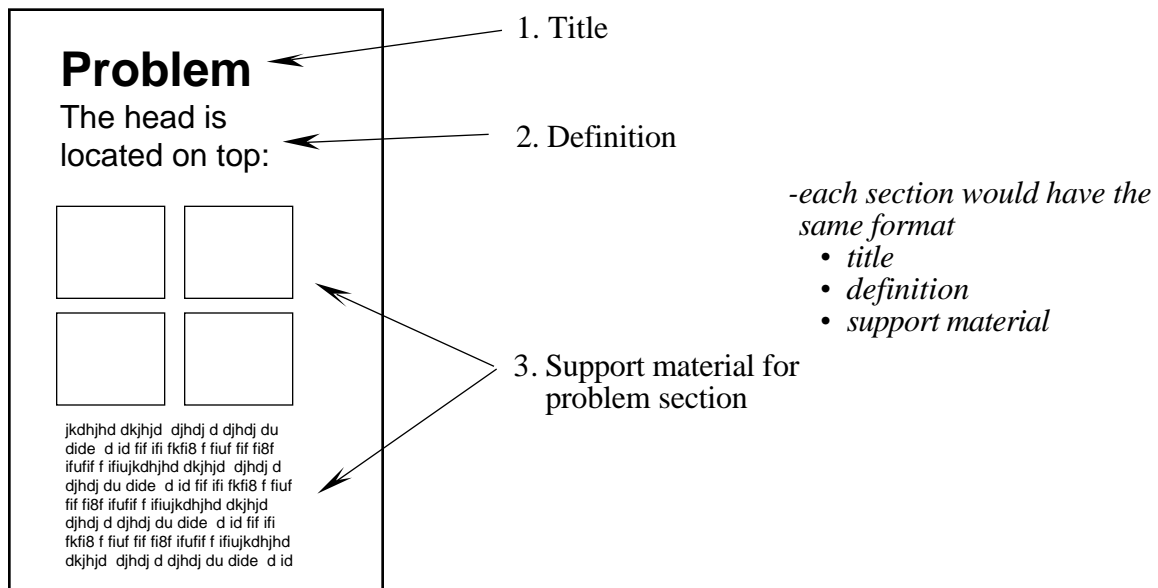
HEADING – title, topic

STATEMENT – text relating to the heading - one sentence

SUPPORT MATERIAL – includes documentation, photographs, maps, diagrams, charts, illustrations, etc.

The audience will view the title first.

Next you provide them with a short definition so that they have an understanding of this particular section.

If the definition has sparked their interest, they will move on to the more detailed information.

1. Title

Problem

The head is located on top:

2. Definition

-each section would have the same format
  - *title*
  - *definition*
  - *support material*

3. Support material for problem section

jkdhjhd dkjhjd djhdj d djhdj du
dide d id fif ifi fkfi8 f fiuf fif fi8f
ifufif f ifiujkdhjhd dkjhjd djhdj d
djhdj du dide d id fif ifi fkfi8 f fiuf
fif fi8f ifufif f ifiujkdhjhd dkjhjd
djhdj d djhdj du dide d id fif ifi
fkfi8 f fiuf fif fi8f ifufif f ifiujkdhjhd
dkjhjd djhdj d djhdj du dide d id

STEP 4:
Eliminate Noise

Before you start editing, think about your audience.

Is your audience primarily made up of your colleagues?

   If so, think about:
- what your audience already knows
- what will be of most interest to those doing similar research
- emphasizing the visual – it helps to facilitate the process of communication

or

the general public?

   If so, you need to:
- pare down the detail
- define or eliminate scientific terminology
- emphasize the visual display to encourage and help facilitate understanding

Edit, edit, edit !

- eliminate all but the vital elements

- reduce your information to brief but concise, legible statements

- whenever possible, reinterpret text as charts, graphs or illustrations

- use point form – it is easier to read than sentences

STEP 5:
Find Your Focus - "The Attention Grabber"

*Considering the fact that your audience has only limited time to view your poster, if there was **one** thing you could say on the poster, what would it be?*

Review each edited section and select the one item, a statement, photograph or diagram, that is sure to attract your audience's attention immediately. This is your **three second hit**. It should be the best part, or what you think best depicts the theme of your poster.

Your focus item should be enlarged so that it will occupy at least 30% of the area of the finished poster.

Remember that your audience will not approach you if it is not clear what your topic or theme is from a "safe distance" of 10 feet.

Hint: the focus could be:

- Photographic – "before" and "after" to illustrate a dramatic change, an enlargement highlighting the area of interest, combination of a photo with line drawing interpretation
- Diagram -– to show how a process works, to indicate relationships within a process
- Chart / Graph – to depict results visually
- Illustration

or

- Lead-in Statement – "Chicken Lays Egg!"
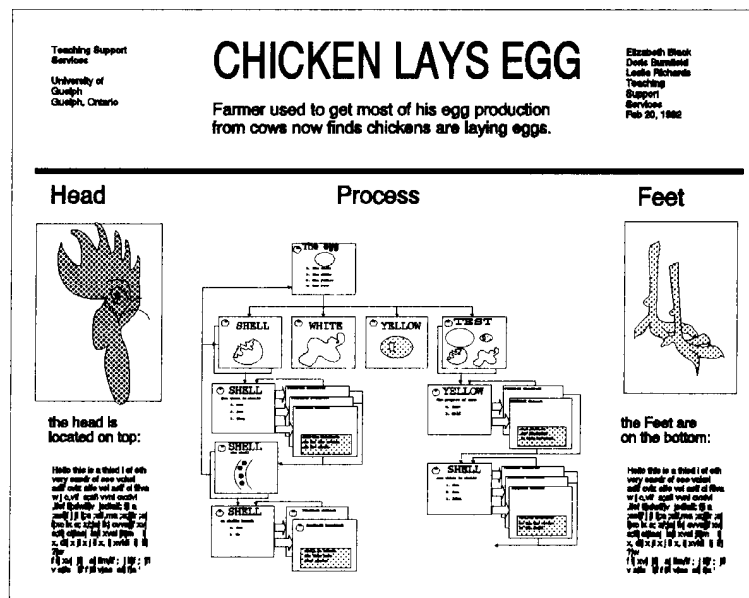
STEP 6:
Put It Together

How you display your information is just as important as its accuracy.

Take time to plan your visual display.

Before you move on to the final layout, several considerations will help increase the poster's effectiveness...

Think about:

- Layout

- Colour

- Text - size, style (typeface)

- Visuals (photographs, illustrations, etc.)

- Space

Remember that one of the rules of good design is maintaining **consistancy** in all of the above (for example, all headings should be the same colour, text size and style, same distance from the border, etc.)
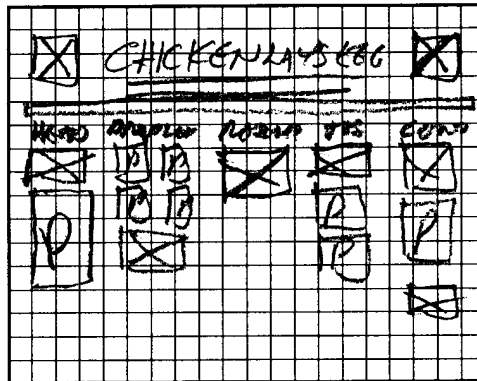
Layout

There are a number of ways that you can put it all together and do a rough layout of your final poster.

1. Full-sized layout:

- On a tabletop, or on the floor, use masking tape to delineate an area the same size as your finished poster (approximately 4' x 5') or use a chalkboard to map out the layout of your information (headings, statements, text, photographs, diagrams etc.).
- Roughly letter the headings in the appropriate size on separate pieces of paper and cut them out.
- Cut out pieces of paper the exact size of photos, charts etc.

  Remember, don't crowd your information, make sure sections are clearly defined with adequate spacing.
- Re-arrange until you are satisfied and ready to take the poster to the final production stage.

2. Scaled down layout: *(The following scale represents $1/6$ of the size of a 4 X 5' final poster).*

- take an $8^1/2$ X 11" sheet of paper.
- draw a grid (vertical and horizontal lines) $1/8$" apart.
- this will give you a scale of $1/8$" = 1" of your poster.
- rough in your text and indicate the placement of photos, graphs, illustrations etc.

  e.g. if you're using an 8 X 10" photograph, the area on the gird would be 1 X $1/4$".

3. Computer layout:

- you can do the layout **and** create the finished poster on your computer (see page 15).

Colour

Never use colour on a poster display only for its own sake. It always needs to be used for good reason and in limited quantities.

Hints:

- Text: Black text is clean and easy to read. Coloured text is more difficult to read.

- A single background colour serves to unify a poster and clearly distinguish it from neighbouring posters.

- Select a neutral background colour such as:
  > grey
  > beige
  > light brown
  > light green
  > cream

  Neutral colours act as a natural foil to the material that will be displayed on top. Avoid using yellow, orange or red which would distract from your information.

- Colour can enhance the hues or contrast of photographs. Dark photographs will look darker on a light background, colour photographs will look more vibrant when displayed on a neutral background.

- Colour can be used to highlight, separate, define, and associate information.

- Colours are often used for coding. As the number of colour-coded items increase, the value of colour as a cue for selecting important information decreases.

Text

Text Size

Your audience shouldn't need a magnifying glass to read your information. Standard word processing text is too small! A common error in poster design is using text that is too small, and is spaced too far apart.

Recommended text heights for a poster are:

MAIN TITLE / HEADING: at least 1 $\frac{1}{2}$" high

SUBHEADING: $\frac{1}{2}$ - $\frac{7}{8}$" high

BODY COPY: $\frac{1}{4}$ - $\frac{3}{8}$" high

Hints:

- Use one text style consistently throughout.
- A Word with the first letter capitalized and the remaining letters in lower case is easier to read than a WORD all in capital letters.
- Avoid *ORNATE* and *ITALIC* styles. *Artsy typefaces can be hard to read.*
- **BOLD FACE** can be used for titles, headings or for emphasis.
- Abbreviations may be used as they are in the published abstracts.

Visuals

Hints:

- Visuals for instruction should be attractive, clear and specific, not ambiguous.

- All non-essential information should be removed from figures.

- Crop and enlarge photographs to focus attention on the significant details.

- All maps and diagrams should have a brief title and be clearly labelled. The legend has a great impact on image perception. To a large degree, viewers see what they are told to see in an image.

- Labels on photographs, graphs, and diagrams need to have a minimum type size of $1/4$" height.

- Colour photographs enhance the poster but need not be used if black and white photos communicate the point equally well.

When using photographs, eliminate unnessary background information by cropping .
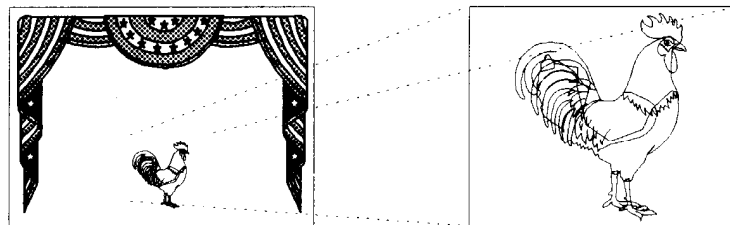
Use a sequence of images (photographs, charts, drawings) to show a progression, before and after, comparisons, etc.
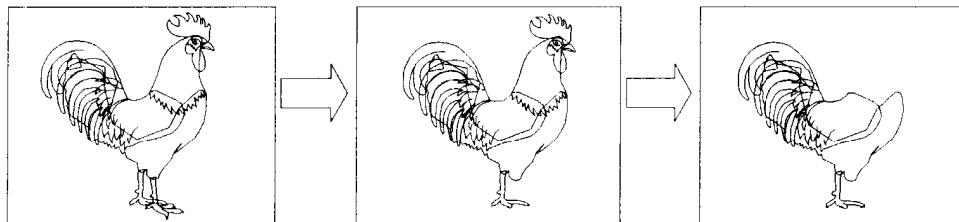
Space

You don't need to fill every square inch of your allotted space. A busy layout can lead to audience confusion and distraction. Adequate white space (the background board on which you display your information) will direct attention to the key elements which you have selected to present to the audience.

Hints:

- Leave a substantial amount of white space. A well designed poster might have up to 50% white space.

- Information should flow from left to right and from top to bottom.

- Long visual lines help organize groups of information. Think about hanging pieces of information from an imaginary clothesline. The tops will all be at the same level.

- Remember that the eye looks for edges. Align edges in groups of photographs. Align headings and text material. Align X or Y axes in groups of graphs.

- Groups of related information function best if arranged close together within a defined border.
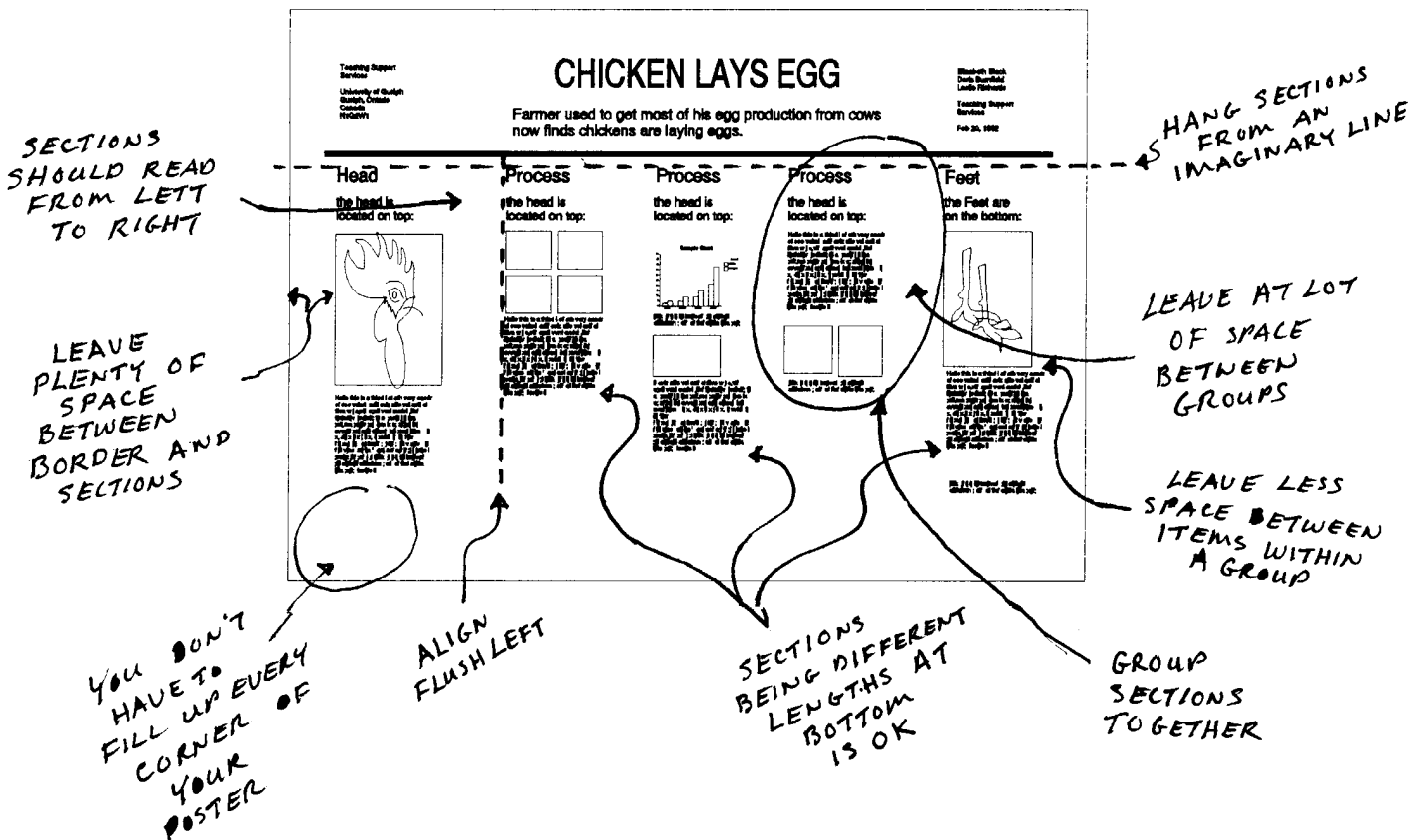
How To Create A Poster On Your Computer

There are many advantages to using a computer program to generate your poster – but the main advantage is cost.

You can create the poster on your computer (see Diagram 1) and output it to a laser printer. The only cost you will incur will be the paper!

Any PC or MAC graphics program with the capability of zooming in on an image and printing that window, can generate posters ranging in size from 8" x 10" to 48" x 60" (the 48 x 60" poster is made up of a series of 8 x 10" prints).

The following example was created using DrawPerfect 1.1, a WordPerfect product. DrawPerfect can be used to generate text, illustrations and charts, as well as to import bitmap files, spreadsheet files, and WordPerfect files. There is also an extensive graphics clip art library.

How to do it:

The following steps will show you how to generate a printed poster using the zooming capabilities of DrawPerfect.

Diagram 1 shows a completed poster created with DrawPerfect

Diagram 2 shows the point sizes used for the text.
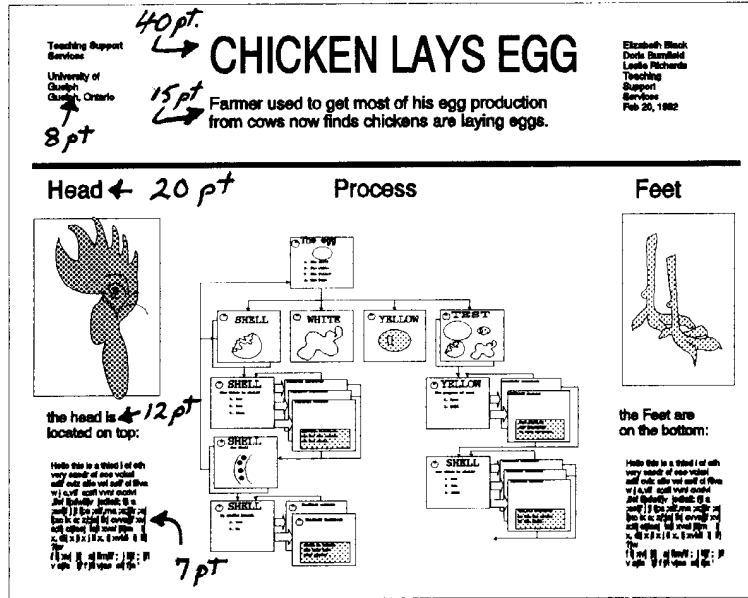
Table 1

Point sizes of text to generate a poster 30" x 40"

	DrawPerfect	Printed text size
Main Heading	40 pt	$1 \, ^3/_4$"
Sub-headings	20 pt	$^7/_8$"
	15 pt	$^3/_4$"
	12 pt	$^1/_2$"
Body copy	8 pt	$^3/_8$"
	7 pt	$^1/_4$"

Diagram 3 shows a series of rectangles drawn on top of the poster. Each of these rectangles will be the same dimension as the final printed page. In this example, there are 15 rectangles (each one when printed will measure 8" x 10").
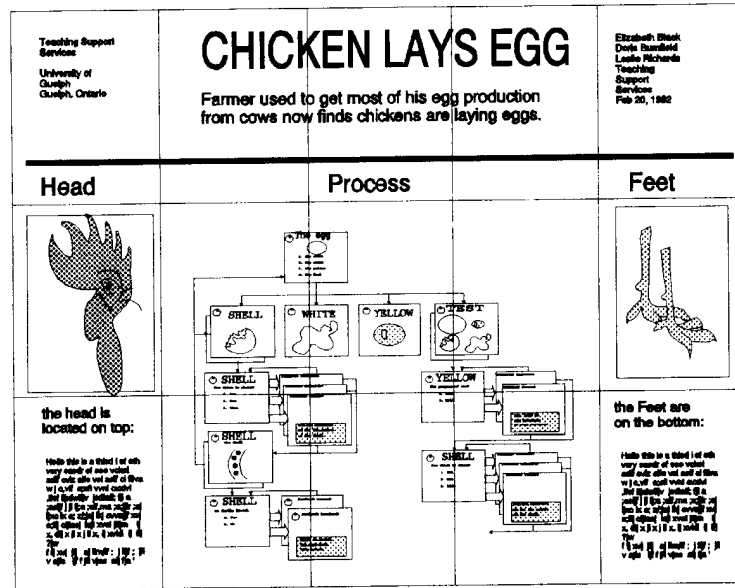
There are 5 rectangles across and 3 rows down.
When printed and assembled, this will produce a 30" x 40" poster.

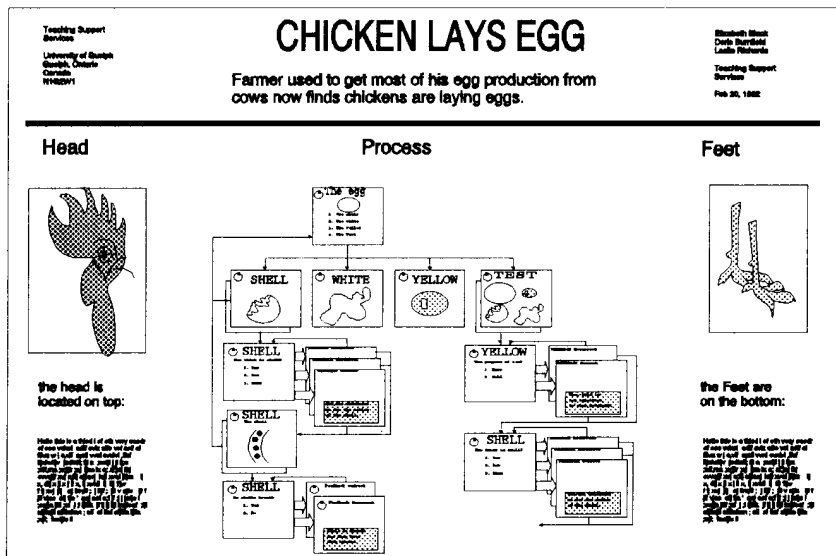*Diagram 4* shows an example of the layout for a 48 x 60" poster

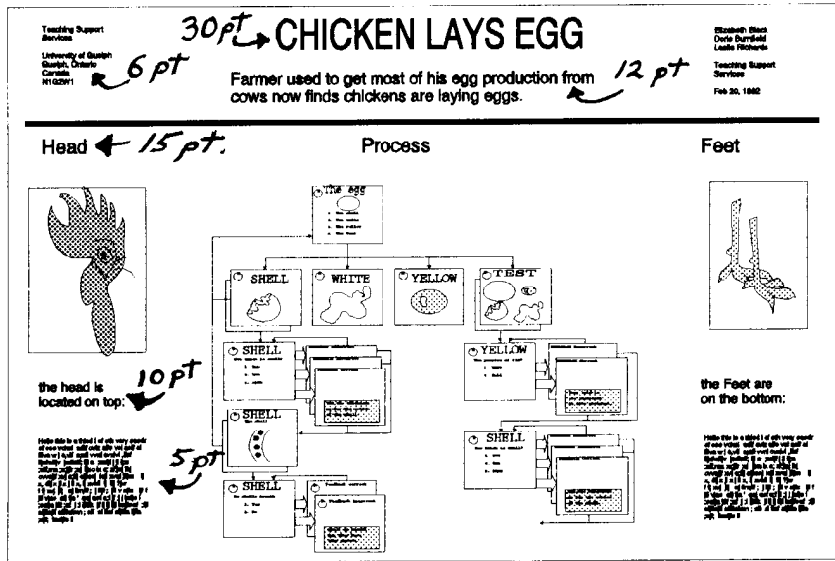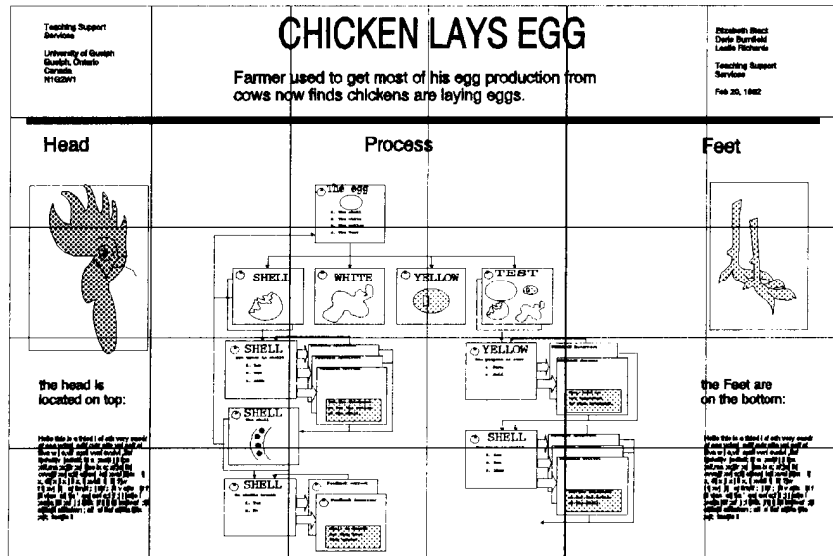*Diagram 5* shows the point sizes used for the text of a 48 x 60" poster

Diagram 6 shows the series of rectangles for this poster. There is a total of 6 across and 5 down.

To Print Your Poster: you will now print each rectangle separately and assemble them together to form your final poster.

In DrawPerfect -

Step 1: select VIEW

Step 2: select ZOOM

Step 3: select AREA (zoom in an area)

Step 4: • place the cursor exactly on the upper left corner of the first rectangle

• stretch it across to the lower right corner of this rectangle

• the area you have selected will be enlarged on the screen

Step 5: print the image by Shift F7 and select 2 (print WINDOW)

This print WINDOW will print only the area you have enlarged.

When printing is finished, move to the next rectangle and repeat the instructions. It might take about 20 minutes to complete the printing of all rectangles.

You will notice that the outline of the rectangle has been printed along with the image, with about 3/8" margin outside the rectangle. If your margin is larger than $3/8$", choose SETUP and set the print margins to 0 (which will actually default to .22)

To Display Your Poster:

Mount the poster:

Once you have all the areas printed, you might want to mount each page on 1/8" foamboard to make it more rigid. Do NOT trim the pages before mounting.

Once they are mounted, trim each page by cutting exactly along the line of the rectangle. Now butt the pages together and see how well they fit!

Lay out your poster:

Now place the individual parts of your poster face down on a table top in the correct order. Run masking tape along the seams, leaving 3/4" tape extra at both top and bottom. You can use this extra tape as a hook and staple through it to hold up the poster.

Assessing the Effectiveness
of your Poster

Hint: Preview your poster by asking someone from your target audience to evaluate it for you.

If you encountered this poster at a poster session, would you stop to look at it?

Is the poster directed to your target audience?
☐ ... is the level of content appropriate for your colleagues?
☐ ... is the content approachable for a general audience?

Does the title of the poster stand out?
☐ ... is the lettering large enough, clear, well-spaced?
☐ ... is the message clear and concise?
☐ ... have you included the poster title, the presenters' names, and the identifier for the school or institution?

Does the focus item succeed in attracting attention to the poster?
☐ ... does it accurately depict the theme of the poster?
☐ ... does it occupy at least 30% of the area of the finished poster?

If you stopped to look at this poster, would you read the text on it?
☐ ... is the text worth reading? has the content been edited well?
☐ ... is the text readable in terms of linguistic difficulty / scientific language?
☐ ... is the text legible in terms of letter size, typographic style, distance between lines, line length, colour of the letter versus background colour?

Has colour been used appropriately?
☐ ... as a neutral background?
☐ ... to highlight?
☐ ... to group?

Have the visuals been used to best advantage?
☐ ... to attract attention?
☐ ... to interpret content?
☐ ... are they large enough to be seen from a distance of three feet?
☐ ... are they attractive but "unambiguous"?
☐ ... has a legend or caption been used to guide the viewer?

Is the final layout visually pleasing?
☐ ... does the poster have sufficient white space?
☐ ... are sections clearly defined with adequate space around them?
☐ ... have items been alligned?
☐ ... is there a logical flow of information?