Making a Scientific Poster with PowerPoint

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Outline

- Introduction
- Poster Format
- Poster Content
- Poster Printing
Introduction

- Function: an approach to disseminate research findings
- Time and space restrictions necessitate poster presentations
Advantages of Poster Presentations

- Attracting audience of similar interests
- Permit direct interaction with study investigators
- Allow creative expression in presentation
- A more relaxed atmosphere for information exchange
- Exposed to ongoing and recently completed research of interest in a short time
- Participant feedback to researcher
Disadvantages of Poster Presentations

- Require participants to move
- Poster development may be expensive (range: 50–700 USD)
- Poster development may be time–consuming
- May not benefit too much in public presentation skills
The Timeline of Poster Development and Presentation

- Research study accomplished (doesn’t necessary require full results)
- Write up and submit an abstract
- Abstract accepted (qualified for poster presentation)
- **Poster development and printing**
- Delivering poster to the conference/meeting
- Attach poster to designated board/wall at the appointed time for presentation
- Poster presentation
Poster Format

- Dr. Gilkey’s “PowerPoint 2007 Poster Tutorial” (found at the top level of the share drive)
- Optional: use existing templates
- Draw a preliminary mock diagram & seek peer review and faculty input before starting
  - Determine the size of tables/figures
  - Length of text – as little as possible
  - Size of headings
  - General flow of information
Poster Format

- Search for poster requirements for specific meetings/conferences
  - e.g. The 2010 International Society of Pharmacoeconomics and Outcomes Research (ISPOR) international conference required that all posters **MUST** follow the format below:
    - Abstract title and authors (top area of board)
    - Subtitles (should correspond to abstract submission)
    - Illustrations, charts, tables, lettering, and drawings must be readable from a distance of at least 3 feet
    - Poster diagram shows the suggested size which should be used (horizontal presentation **ONLY**)
    - A pocket folder is provided on the board for handouts of your presentation which you are required to bring. It is suggested that you bring a minimum of 200 copies
Poster Format

- e.g. 2010 ISPOR international conference poster requirement
  - Poster diagram
    - Your pocket folder for hard copies of your presentation will be located at the bottom of the board. ISPOR suggests that your poster be no larger than 42 inches HIGH by 90 inches WIDE to be seen easily and fit well on the board.
Initial setup:
- Start Powerpoint with your standard window layout.
- Create a new blank document – don’t save yet.
- Choose “Page Setup...” in the Page setup section of the Design tab to bring up the “Page Setup dialog box. The safest course is to make the document half the height and width of the desired final poster and scale it to full size when printing the PDF that will be made from the PowerPoint document. The height of the paper is 42”, so set the height of the document to 21”. The width must then be set to half the final desired width. The poster size must be set up correctly from the beginning – PowerPoint slides do not resize properly, so if the poster must be resized later, you will have to create a new poster at the correct size and transfer your content to it. Click “OK.” Powerpoint will create a window containing the poster-sized slide. Don’t save yet.
Poster Format
TURN OFF IMAGE COMPRESSION AND SAVE THE FILE – THIS STEP IS CRITICAL: Microsoft turned on image compression by default in PowerPoint 2007 – all images are compressed to screen resolution upon saving the file unless the user turns the option off BEFORE THE DOCUMENT IS SAVED FOR THE FIRST TIME. Image compression can be turned off by:

1. selecting Save from the Office Button popup menu to bring up the Save As dialog box,

2. clicking Compress Pictures... in the Tools popup menu in the lower left corner of the dialog box to bring up the Compress Pictures dialog box

3. Clicking the “Options...” button to bring up the Compression Settings dialog box, and
   a. unchecking “Automatically perform basic compression on save” and “Delete cropped areas of pictures” in the Compression options: section, and
   b. selecting “Print (220 dpi):...” in the Target Output section.

4. Click “OK” to dismiss the Compress Pictures and Compression settings dialog boxes and IMMEDIATELY SAVE THE FILE with a suitable name.
Poster Format

Compress Pictures
- Apply compression settings now
  - Apply to selected pictures only
  - Options... OK Cancel

Compression Settings
- Compression options:
  - Automatically perform basic compression on save
  - Delete cropped areas of pictures
- Target output:
  - Print (220 ppi): excellent quality on most printers and screens
  - Screen (150 ppi): good for Web pages and projectors
  - E-mail (96 ppi): minimize document size for sharing
  - OK Cancel
Change some settings to make the program easier to use and improve its performance:

- Click the Office Button to show its menu, and click the PowerPoint Options button at the bottom to bring up the PowerPoint Options dialog box. Then:

  a. Select the “Advanced” option in the left panel.
     (i) VERY IMPORTANT: check “Print inserted objects at printer resolution” and “High Quality” in the Print section. Inserted charts and other graphics will now be printed at high resolution instead of screen resolution.
     (ii) Uncheck “When selecting, automatically select entire word” in the Editing options section. This will facilitate the selection of single letters for sub/superscripting.

  b. Select the “Proofing” option in the left pane. Then choose “AutoCorrect Options...” in the AutoCorrect options section to bring up the AutoCorrect dialog box. Choose the “AutoFormat As You Type” tab and uncheck the “AutoFit title text to placeholder” and “AutoFit body text to placeholder” options. This will prevent the program from automatically adjusting the size and line spacing of the text when the placeholder is resized.
Poster Format
Poster Format
Poster Format

Content insertion

- Text—creating a new text box
- Font: Times, Arial, or Helvetica are recommended (computers may differ)
- Font size is must be $\geq 16$ points at half size (32 points at full size)
- Paragraph width: maximally 14”–15” at 16 points font size; wider is OK if $> 16$ points
- Text should not be too close to the border—a margin of 0.125” recommended
# Poster Format

Note that these sizes are for a half-sized poster (full size poster in parentheses)

<table>
<thead>
<tr>
<th>Text Content</th>
<th>Reading Distance (feet)</th>
<th>Type Size (point)</th>
<th>Type Weight</th>
</tr>
</thead>
<tbody>
<tr>
<td>Title</td>
<td>15–20</td>
<td>48–88 (96–196)</td>
<td>Bold</td>
</tr>
<tr>
<td>Authors/ Affiliations</td>
<td>15–20</td>
<td>30–74 (60–148) Fit to space</td>
<td>Bold</td>
</tr>
<tr>
<td>Main Headings</td>
<td>6–8</td>
<td>22–30 (44–60)</td>
<td>Bold</td>
</tr>
<tr>
<td>Supporting text</td>
<td>3–4</td>
<td>≥16 (≥32)</td>
<td>Regular or bold</td>
</tr>
<tr>
<td>Non-critical text</td>
<td>3–4</td>
<td>≥12 (≥24)</td>
<td>Regular</td>
</tr>
</tbody>
</table>
Poster Format

- Graphics/graphs/tables/images
  - Use PowerPoint tools if possible to prevent the need of reformatting – otherwise export from creating application as PDF and insert as picture
  - Prudent copy-paste actions (graphs vs. tables)
  - Bring text to the front
  - Highlight specific columns
Poster Format

- **Design**
  - Vertical columns
  - Content flowing from top to bottom, from left to right
  - Dark text and figures on a light background
  - Contrast colors of text columns and background
    - Avoid Red–green color contrast

- **Saving files**
  - DON’T change to other versions of PowerPoint files
Introduction

We hope you find this template useful! This one is set up to yield a 42x90" (3.5x7.5') horizontal poster when we print it at 200%

We've put in the headings we usually see in these posters, you can copy and paste and change to your hearts content! We suggest you use keep black text against a light background so that it is easy to read. Background color can be changed in format-background drop down menu.

The boxes around the text will automatically fit the text you type, and if you click on the text, you can use the little handles that appear to stretch or squeeze the text boxes to whatever size you want. If you need just a little more room for your type, go to format-line spacing and reduce it to 90 or even 85%

The dotted lines through the center of the piece will not print, they are for alignment. You can move them around by clicking and holding them, and a little box will tell you where they are on the page. Use them to get your pictures or text boxes aligned together.

How to bring things in from Excel® and Word®

Excel: select the chart, hit edit-copy, and then edit-paste into PowerPoint®. The chart can then be stretched to fit as required. If you need to edit parts of the chart, it can be ungrouped through the chart menu. Use Symbol font for scientific symbols used in imported charts, which PowerPoint® will not recognize as a used font and may print improperly if we don’t have the font installed on our system. It is best to use the Symbol font for scientific characters.

Word: select the text to be brought into PowerPoint, hit edit-copy, then edit-paste the text into a new or existing text block. This text is editable. You can change the size, color, etc. in format-text. We suggest you not put shadows on smaller text. Stick with Arial and Times New Roman fonts so your collaborators will have them.

Scans

We need images to be 72 to 100 dpi in their final size, or use a rule of thumb of 2 to 4 megabytes of uncompressed tiff file per square foot of image. For instance, a 2x5 photo that will be 6x10 in size on the final poster should be scanned at 200 dpi.

We prefer that you import tiff or jpeg images into PowerPoint. Generally, if you double click on an image to open it in Microsoft Photo Editor, and it tells you the image is too large, then it is too large for PowerPoint to handle too. We find that images 1200x1800 pixels or smaller work very well. Very large images may show on your screen but PowerPoint cannot print them.

Preview: To see your image in actual size, go to view-zoom-100%. Posters to be printed at 200% need to be viewed at 200%

Feedback: If you have comments about how this template worked for you, email to sales@megaprint.com.

We listen! Call us at 800-590-7850 if we can help in any way.

Methods

Figure #1

Figure #2

Results

Conclusions

Bibliography

1.

2.

3.

4.
Poster Format

This is the title of the poster at a good large point
Author1, Author2
Location of authors

Text for the legend

The text here test to

This is the title of the poster at a good large point
Author1, Author2
Location of authors

Text for the legend

The text here test to

This is the title of the poster at a good large point
Author1, Author2
Location of authors

Text for the legend

The text here test to
Poster Content

- Subheadings
  - Abstract?
  - Introduction/Background
  - Methods
  - Results
  - Conclusions
  - References
  - Discussion & Contact Info?
  - Tables and Figures

- Use Bullet Points with Hanging Indent Throughout
Poster Content

- Readers should be able to self-interpret the meaning of the poster
- Amount of text: 3–5 minutes of reading
- Avoid jargon
  - Pictorial glossary describing some jargon terms
  - Internet address of relevant material
- Don’t make sentences too long
Abstract?
- The poster is already a mini version of your study
- No restrictions regarding the number of words
- Stick to the poster requirements
Poster Content

- **Title**
  - Shorten title (preferably ≤10 words) instead of reducing font size
  - Optional border around the title copy
  - Type of study, major variables, and population studied
  - Authors and institutional affiliation
Poster Content

- **Introduction/ Background**
  - Knowledge regarding the disease/intervention on which the study focuses
  - Why is this topic an important issue
  - Gaps in the literature

- **Objectives**
  - Correspond with study title
Methods

◦ State the data collection approach
  • Prospectively vs Retrospectively
  • Survey vs Database
◦ Specify study population
◦ Specify study time frame
◦ Define inclusion/exclusion criteria if applicable
◦ Define outcome measures
◦ Statistical approaches used
◦ Define statistical significance
Methods
- Transparent: present key methods in a way that readers can know how to replicate your study after reading your section
- State the sensitivity analysis/subgroup analysis/power calculation conducted in your study
Results

- Describe population quantitatively
- Descriptive statistics
  - e.g. control vs. experimental group
- For quantitative results
  - determine and list important p-values/ statistical significance whenever possible
  - Specify frequency, percentage, and p-values for categorical (nominal) or ordinal data
  - Specify mean (median, if data is skewed), standard deviation, and p-values for continuous or discrete data
Poster Content

- **Results**
  - Link results to tables/figures
  - Consistent with tables/figures

- **Tables/ Figures**
  - Most important results or if results are better communicated by tables/figures
  - Stand alone
  - Accurate
  - Appropriately label figures
  - Provide clear, short legends
Poster Content

- Discussion
  - Implications
  - Limitations
  - Conclusions
  - Future Research

- References
  - List major references
  - If the info provided in the introduction or methods section are cited from the references provided, try to link them.

- Contact Info
What else does the meeting/conference require?
e.g. the 2010 ISPOR international conference evaluates posters eligible for awards based on:
- Background provides appropriate perspective / context for the subject
- Objectives / research questions are clearly stated
- Research design / methods / modeling is appropriate and transparent (scores on this will determine winners in case of ties)
- Data sources and/or sampling procedures are clear and appropriate
- Data analyses are appropriate
- Research objectives are met/addressed
- Implications of findings are discussed
- Factual information is kept separate from interpretations or implications
- Abstract is presented in an unbiased manner
- Clarity of presentation
Printing a Poster

- Printer located at Drachman B208
- Dr. Gilkey’s “PowerPoint 2007 Poster Tutorial” (found at the top level of the share drive)
- Sign up at least two days prior to printing
- Print at least two days before leaving for meeting
- Convert to PDF
- Change color settings for Acrobat
Printing a Poster
Printing a Poster

Print

- select “Designjet Z6100ps” as the printer
- "Properties"
  - "Advanced"
    - expand “Paper/Output"
    - click on “Letter”
      - choose “Postscript Custom Page Size”
      - change the width and height according to requirements
      - Make sure “Paper Feed Direction” is set to:
        - “Short Edge First” for poster width ≥42”
        - “Long Edge First” for poster width <42”
Printing a Poster
Printing a Poster

![PostScript Custom Page Size Definition]

- Custom Page Size Dimensions:
  - Width: 42.00 (3.00, 42.00)
  - Height: 84.00 (5.50, 128.00)

- Paper Feed Direction: Short Edge First

- Paper Type: Cut Sheet

- Offsets Relative to Paper Feed Direction:
  - Perpendicular Direction: 0.00 (0.00, 0.00)
  - Parallel Direction: 0.00 (0.00, 0.00)
Printing a Poster

- Print
  - “Properties”
    - “Color”
      - Click the “Application managed colors” radio button
  - “Fit to Printer Margins” from the “Page Scaling” dropdown menu
  - Preview your poster
  - …PRINT!
Printing a Poster
Questions?