Procedure to Construct Professional-Quality Posters

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This procedure is written to construct a professional quality poster in Microsoft PowerPoint and is meant to accompany the article:

Newbrey, M.G. and J.M. Baltezore. (2006). Poster presentations: Conceptualizing, constructing, and critiquing. The American Biology Teacher. 68(9):550-554.

Procedure to create a poster:

Our instructions are to design and create a poster in Microsoft PowerPoint, however, other programs can be used. We selected PowerPoint because it is commonly available. We suggest the author read this document and then use it to create a poster. Consider this document as a guide for the basic procedures. In addition, we suggest that after PowerPoint is open, immediately go to the 'View' dropdown menu and click on 'Toolbars', and make sure that the 'Formatting', 'Drawing', and 'Picture' toolbars are enabled by clicking on them; a check mark will appear next to enabled toolbars. The tool bars will be repeatedly used throughout the procedure. Our instructions for using the computer's mouse refer to a right-handed mouse.

1. Poster size:

Start by setting the size of the poster. Go to the dropdown menu 'File,' then select 'Page Setup,' type in the dimensions, (i.e., 48 x 36 inches, etc.) and choose the orientation of the slide by checking either 'portrait' or 'landscape', then select OK.

2. Layout:

To set the slide type, go to the dropdown menu 'Insert', then select 'New Slide', then choose 'Autolayout' by clicking on the autolayout design, which provides a blank slide with a title space.

3. Background:

Format the background color by going to the drop down menu 'Format', then to 'Background', then select the dropdown menu (i.e., inverted triangle) found on the left side below the main box of "background fill". Next highlight 'More Colors', then select a color from the 'Standard' window or program a color from the 'Custom' window. We suggest a very dark color (for example, from the 'Custom' window, set: red, green, blue to 0,0,102) or a light color to contrast the text of the poster (Newbrey and Baltezore, In press). Also from the dropdown menu choices, you can instead highlight 'Fill Effects' and then choose a 'gradient, texture, or jpeg picture' as a background.

A. To use 'Gradient,' choose one or two gradients and set the color as described above. To use two gradients, set the first (color number one) to the desired color and the second color to represent the top or sides. For example, choose a darker color for color number one, and then set the second gradient color to black. We suggest that the top be black (color number two) in color (set shading styles in the same window to 'Horizontal'), while color number one represents the middle and perhaps bottom.

B. You may instead choose 'Texture' instead of 'Gradient', just highlight the desired texture.

C. A jpeg picture from a digital camera can also be used as a background. Select 'Picture' instead of 'Gradient' or 'Texture' and then select 'Select Picture'. The picture should posses the qualities of being either very light or dark to contrast the text (Newbrey and Baltezore, In press).

4. Title font:

The text should be selected by clicking inside of the title box, then select 'Format' from the drop down menus at the top of the screen, then select 'Font'. The title's font size should be

60 or larger and 'Font Style' should be bolded. Font size is set by selecting it, typing it in on the 'Formatting toolbar', or by using the 'Format' drop down menu and clicking on 'Font'.

5. Title:

       Proceed by typing in the text of the title. Then press return one time and reset the text size to approximately 70% of the title text size (for example, if the title text is 60 (48 x 36 inch poster) then the address should be at a size of 45) and type in the name and work/school address (i.e., name, Science Department, North Dakota State University, Fargo, ND 58105) (Newbrey and Baltezore, In press). The text can be modified by highlighting the text and then selecting the 'Format' drop down menu or highlighting the text and then right click on the mouse and select 'Font.'

6. Text boxes:

       A poster should be formatted into equal width columns with each column a single text box (see Newbrey and Baltezore, In press, Figure 3). To insert a text box, go to the drop down menu 'Insert' and select 'Text Box,' then click and drag diagonally on the text box and then unclick. Proceed by typing in the text box or 'Copy' and 'Paste Special' as unformatted text. To copy and paste, go to the drop down 'Edit' menu select 'Paste Special' then select 'Unformatted Text' to eliminate tab and hard return errors. The embedded tabs and hard returns make formatting difficult or impossible in PowerPoint text boxes (i.e., unwanted and un-adjustable spacing, long tab distances, etc.). When finished with the text, place the mouse pointer over the hashed region of the box and right click once to get a stippled region surrounding the box. Notice the mouse arrow change to a four-way arrow, then right click on the hashed region surrounding the box to get a menu; from the menu select 'Format Text Box' to get the format window. Proceed by clicking on the dropdown menu for selecting choices for 'No Fill', 'Fill', color and select the choice 'No Line' (unless you want the text to be surrounded by a box) or 'Line' color. To place a line around the text box, select a line color and set the line thickness at 4 pt or more.

       To format the text, click inside the text box or highlight the text and follow the directions above that are used in setting text characteristics. The main body of the text should consist of 18 to 25 pt font (preferably 20 or larger for 48 x 36 inch poster).

       Text box width can be manipulated by dragging one side away from the center of the box. Text box height can be manipulated by adding hard returns after the text. Make space for figures within the column by placing a series of hard returns to move the text down the column and use separate text boxes as figure captions (Newbrey and Baltezore, In Press). Text boxes can overlap each other, however, they may obscure each other if they have 'Fill' and are non-transparent.

       Text boxes can be moved by clicking on the text box margin to get the stippled region surrounding the text box and then click on the stippled region and drag the text box or use the arrow keys to move the box. Use the keyboard control (Ctrl) and the arrow keys at the same time to move the text box in small increments.

7. Graphs:

       Insert graphs one of two ways; you can build a graph in PowerPoint as you would Microsoft Excel 2000 (1999) or you can use Excel and copy it into PowerPoint. To copy a graph from Excel into PowerPoint, for example, click in one of the corners in the upper- or lower-most

right of the chart to get a black square, and then click the 'Copy' icon. Proceed to PowerPoint then under the 'Edit' drop down menu (upper left) click 'Paste' or 'Paste Special,' then click **'**Microsoft Excel chart object.' The graph can be resized and edited by double clicking on the graph, then make all adjustments for dimensions, font, position of graphs objects, etc. in PowerPoint.

8. Sizing objects:

Pasted images often have relatively large physical dimensions. The size can be adjusted by clicking on the graph or image, then right click on the image, select 'Format Object,' select 'Size,' and then change the dimensions (always make sure that the 'Lock Aspect Ratio' and the 'Relative to Original Picture Size' boxes have checks in them). Adjust the size by using the mouse to click on and hold a corner square while dragging at an angle toward the 'opposite corner' of the graph or table. Use a corner square only or the object may be stretched out of shape if the 'Lock Aspect Ratio' and the 'Relative to Original Picture Size' boxes are not checked. If it is stretched, we suggest choosing 'Undo' or 'Delete' and start over.

9. Tables:

Construct tables in either PowerPoint using 'Tables' or in Excel. Do not use tables from Microsoft Word 2000 (1999) because formatting options are very limited and the appearance is not very aesthetic. If you choose Excel, there are more options in constructing a table. If you choose PowerPoint, it tends to be easier but there are fewer options in formatting.

When constructing tables in Excel, lines can be added using the 'Borders' function, text colors can be changed, and cell size can be easily manipulated. Set the font type to match the text of the poster and change the font color to also match that of the poster. Change the grid line color by selecting 'Tools' from the drop down menu, select 'Options', select 'View', then change the color to match that of your background in PowerPoint. Highlight the entire area of the table, select 'Copy', then 'Paste Special' into the poster (to paste: select the 'Edit' drop down menu, select 'Paste Special', then select 'Picture Enhanced Metafile').

To construct tables in PowerPoint: select the drop down menu 'Insert,' then select 'Tables,' and then type in the number of rows and columns. Type in the text and use the pencil pointer to add lines. There is a 'Tables and Borders' toolbar to select a line color or change the thickness of the lines. To display the toolbar select the drop down menu 'View,' then 'Toolbars,' then check the 'Tables and Borders' option. Change the thickness and colors of the lines using the toolbar buttons and the mouse. Column and row cell sizes can be easily adjusted by dragging with the mouse to minimize cell space.

10. Pictures:

To insert jpeg or tiff type pictures, select 'Insert' from the drop down menu, select 'Picture', select 'From File,' and then the location of the picture file. To resize the picture and to avoid stretching the image, click on the picture, then right click on the picture, select 'Format Object', select 'Size', and then change the dimensions after making sure that the 'Lock Aspect Ratio' box has a check in it. To select a picture from the web (only with permission to avoid copyright violations), save the picture to a file (not 'Copy' and 'Paste') and then follow the instructions for inserting the picture from a file. This procedure should insure the highest quality picture possible for the poster and will help prevent problems with low resolution when it is

enlarged (Newbrey and Baltezore, In press). The image can also be cropped using the Picture toolbar.

11. Arrows:

Arrows can be inserted to point out key aspects or identify attributes. To insert an arrow, click on the black arrow symbol on the drawing tool bar at the bottom of the PowerPoint desktop. The drawing toolbar is indicated by the word 'Draw' at the beginning of the toolbar. Once the arrow function is selected, put the arrow in the appropriate location and drag the mouse pointer. Dragging the ends in the desired direction can reorient the arrow. The arrow ends can be finely maneuvered by clicking on the arrow, then right click on the arrow, and then select 'Edit Points'. Only move the arrow from the ends; anywhere else and the arrow will deform. The keyboard 'Arrow Keys' or 'Ctrl and Arrow Keys' can also move the arrow symbol. To format the arrow, click on the arrow, then double click or right click, then select 'Format Object', (see text boxes for format instructions).

12. Line boxes:

Inserting a box around a picture can be done with the drawing toolbar box symbol. Make sure the line is thick enough to be viewed at a distance and also that there is no 'Fill' in the box. To format the box, double click on the box or click on the box, then right click, then select 'Format Object', (see text boxes for format instructions). Lines and other shapes can be added and formatted with the same tool bar.

13. Alignment:

Alignment of the poster components can be done by adding guides, which do not show on a printout of the poster. These lines can be moved horizontally and vertically for alignment purposes. To add the Guides, select 'View' from the drop down menu, and then select (check) 'Guides'. To turn off the 'Guides', do the same but uncheck 'Guides' instead.

14. Grouping:

To move groups of objects (i.e., a text box aligned with pictures and figure captions) click and hold the left mouse button down and drag a dashed box completely around all the items (remember text boxes have invisible portions of the box beyond the text which also need to be included), then unclick and every item should have marked corners. Use the keyboard arrow keys or the Ctrl and arrow keys to move the items into the desired location. Grouping the components will keep them in their same positions relative to each other. Right click on some part of the group of selected objects, then select 'Group' (or 'Ungroup'). Generally, to edit the items they need to be ungrouped.

15. Viewing:

To view the poster, select the view button from the lower left corner of the PowerPoint window. The view poster icon resembles a mobile canvas pull-down screen as if for use with an overhead projector. To return hit the keyboard 'Esc' button.

Acknowledgements

References

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