Effective Presentation and Visuals for PowerPoint:

PowerPoint can be an effective visual tool to present material to your audience. At the same time, it can be a distraction to your students when used improperly. It’s important to understand some basic principles regarding PowerPoint visuals and presentation to help make your lecture more effective and understandable.

There are many factors to consider when planning a PowerPoint presentation (or series of presentations).

1. Your Students:
   a. How many students are enrolled?
   b. What are you trying to illustrate to them using power point?

2. Venue:
   a. How big is your lecture hall? What is the configuration of your lecture hall (i.e.: small classroom, long and deep, wide and shallow, etc…)?
   b. What’s the projector setup in the classroom you’ll be lecturing in? Are you familiar with this setup?

3. What are your tools?
   a. What Platform (PC or Mac) is your computer?
   b. What input/output plugs do you need? Do you need to bring your own display adapter cable? (i.e.; VGA to DVI adapter for IBook and Powerbook users)
   c. Will you be lecturing with the lights on or off?

4. Your presentation:
   a. How do you want your lecture to benefit from PowerPoint (image intensive, reinforcing the narrative)? Do you want it to illustrate your points (through the use of diagrams, etc.)? Do you want to use it as an outline to follow (listing key points)?
   b. What kind of media do you plan on using in your presentation?

   ■ Digital images
   ■ Audio Clips
   ■ Video Clips
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c. Will you need to switch between the digital projector, an overhead projector, and/or a chalkboard? Why and how often?
d. How much information will you be presenting in each slide?

1. Your Students:
   a. Number of enrolled students.
      - The larger your class, the more useful a PowerPoint presentation can be. This is important because PowerPoint is a presentation medium that (when used properly) can be easily visible to all students in your class. Large lecture halls are almost always equipped with a properly sized screen (sometimes two), so people in the back of the room can follow the presentation and see the slides more easily, although you should perform a “dry-run” of your presentation format in your lecture room before class if possible.
      - Prolonged and extensive PowerPoint presentations for smaller classrooms, while still effective, may be unnecessary to communicate your points. This also depends on the material you are teaching. Media intensive presentations (with a lot of images and video or sound files) are ideal for PowerPoint regardless of class size.

2. Venue
   o Lecture hall size.
      - While there are some general guidelines to the format of a power point slide, the size of a room (particularly an irregularly shaped room) can especially affect the type of presentation you decide to do. Make sure to use large fonts (at least size 24, and hopefully larger) to ensure that your presentation will be readable from everywhere in the room. Make sure not to overcrowd individual slides with information, which makes your slide difficult to read from a distance.
   o Projectors
      - You can have a visually effective presentation ruined by a projector behaving in unexpected ways. To avoid as many technical difficulties as possible, show up early to class to test your presentation and make sure everything is working correctly. Next are a few things to consider regarding your presentation tools.

3. Computer Platform
   a. This difference will affect the PowerPoint presentation itself very little (especially so with more recent versions of PowerPoint). Your hardware platform will determine you input and output ports for things like connecting external displays and projectors. It may also affect how your computer communicates with the display hardware in the classroom; a
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problem with this may cause your presentation to be displayed incorrectly. If you have difficulties with a smart panel or other classroom display technology, you can call Classroom Technology Services for assistance (or there may be someone in the room who can assist you as well). Remember to become familiar with your hardware; this is important to know if you call for help.

**INPUT/OUTPUT PLUGS:**

- There are 2 main types of output ports which are found on the back side of your laptop computer:

![DVI and VGA ports](image)

Check to see what kind of output port your computer has. PC laptops have at least a VGA output port (and sometimes a DVI port) while current Apple laptops usually have a mini-DVI or DVI output. While most projectors at UC Davis use a VGA import cable, your Apple laptop will likely have come with a DVI to VGA adapter or a mini-DVI to VGA adapter. These adapters plug into your Apple laptop, and the VGA cable from a projector plugs into the adapter on the other end. If your laptop didn’t come with one of these adapters, you should procure one as soon as possible. Below, we have a picture of a DVI to VGA cable, which comes with most 15 and 17 inch aluminum Apple Powerbooks.
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APPLE M8754G/A DVI to VGA Display Adapter (Courtesy of: Amazon.com)

b. LIGHTS ON/OFF

- Determining whether or not you’ll be presenting with your lights on/off is important.
- Lights ON:

<table>
<thead>
<tr>
<th>Benefits of lights on:</th>
<th>Benefits of lights off:</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>EYE CONTACT:</strong></td>
<td><strong>PREVENTING EYESTRAIN:</strong></td>
</tr>
<tr>
<td>If maintaining eye contact with your students is important to you, then you may wish to keep the lights on. This also helps if you don’t want student attention focused solely on the screen. With the lights on, coupled with an effective presentation, their eyes will follow where you direct their attention.</td>
<td>Staring at a bright slide for an extended amount of time is hard on the eyes. Too much brightness from the screen in addition to having the lights on can make things even worse. Try to create a comfortable viewing environment to help your students better absorb your material. A dark room makes looking at slides much easier on your students.</td>
</tr>
<tr>
<td><strong>NAPPING STUDENTS:</strong></td>
<td><strong>VISUAL DIVERSIONS:</strong></td>
</tr>
<tr>
<td>While it may be impossible to prevent some students from falling asleep in class, leaving the lights on can help tired members of your class stay awake.</td>
<td>With the lights on, there is more room for students to become easily distracted by other things they may see. You may want to turn the lights off to help students focus on more easily on what you’re trying to show.</td>
</tr>
<tr>
<td><strong>NOTE TAKING:</strong></td>
<td><strong>MORE EFFECTIVE MEDIA PRESENTATION</strong></td>
</tr>
<tr>
<td>If you expect your students to take a lot of notes during your lecture, then they should be able to see what they are doing. Leaving the lights on will help see what they’re writing while they listen to your lecture.</td>
<td>If your presentation is image or media intensive, it will look much better and be much easier to see in a dark viewing environment. This is especially true for video content.</td>
</tr>
<tr>
<td><strong>PRINTING EASE:</strong></td>
<td></td>
</tr>
<tr>
<td>If you are planning on posting your slide on the web for your students to print out and bring to class, then consider doing them on a light/white background (and thus keep the lecture hall lights on). This way there is room for them to take notes around your slides.</td>
<td></td>
</tr>
</tbody>
</table>

4. YOUR PRESENTATION:
a. **Using PowerPoint to benefit your lecture (descriptive, image intensive, or to reinforce the narrative)?**

- Visuals and text should be clear, fairly simple, and directly relevant. Try not to create slides that resemble a page from a text book. The more complicated a slide is, the more likely your students will be to ignore your voice while copying down the information displayed.

b. **To illustrate your points (i.e.: diagrams, pictures, etc...)**

- Avoid overcomplicated visuals. Pick a background that focuses your student’s attention on the image. Avoid bright and/or primary colors for your slide background, as these tend to be hard on the eyes. Neutral colors, like gray, work well. Use images that are large but remain within the recommended margin area. Try to keep descriptions of the image simple.

![Notice the difference background color and image size can make. This would be a good example of what not to do.](image1)

![The image displayed here is still large enough to see, while keeping within a “safe-zone” of 80%.](image2)

c. **Slides used for key points/outline/definitions:**

- Any information put on the slide will be seen by your students as essential information (unless you clearly say that it isn’t). Therefore, when using PowerPoint to make a list of key points for your students to follow while listening to your lecture, lean towards phrases that are simple, clear, and directly relevant.

- When using your slides to display definitions, either have an available handout for your students to follow so they don’t have to copy the slide, or provide your students time to copy down any definitions before continuing. Know that it’s a learned habit for students to copy anything you show on the screen; if you are move too quickly through your slides, your students may feel frustrated.
d. What kind of media do you plan on using in your presentation?

- If you’ll be using multimedia, then gather your assets: (See “Compatible Formats” for information regarding each media category)
  - Digital images
  - Audio Clips
  - Video Clips
- When assigning media to your PowerPoint presentation from your hard drive, make sure not to move the file to a different location after you’ve added it to your presentation. When adding media to your slides, PowerPoint points at to that file on your computer rather than integrating it as part of the presentation file; if you move the file you used to a different location, you will receive an error message when trying to display your media in powerpoint. The best ways to prevent this situation are:
  - Always carry a back-up medium for your media
  - Save any and all media files for your presentation on the same computer and folder the presentation will be given on, before you use them.

e. How much information will you be presenting in each slide?

- **BASIC GUIDELINES:** Organization, Economy, & Communication
  - The easiest route for creating your slides is to use the default settings that come with the program. Depending on your needs, however, the default settings may not accomplish what you are trying to do. In such cases, there are some basic guidelines that you should follow to increase the effectiveness of your presentation. The purpose for having these guidelines is to maintain the *Organization, Economy, & Communication* of your presentation.
    - **Margins**
      - Too much of a margin is generally preferable to too little. In most cases, the content of your slide shouldn’t take up more than 80% of the center of the screen. This ensures that your text or media won’t run off the screen. This also guarantees that every student attending your lecture has complete visibility regardless of where they’re sitting.
    - **Text:**
PowerPoint Presentation #1

Welcome to the class in PowerPoint presentation aesthetics

We will cover:
  - Text Size and its effects
  - Font type
  - Length of text

How many lines should go on a page?

light on dark
**dark on light**

(The text size, fonts, and colors show the relative differences and are useful as a reference when deciding what you want to use in your presentation)

<table>
<thead>
<tr>
<th>Titles:</th>
<th>Body Text:</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Size</strong></td>
<td>Select a title size that seems appropriate for you, but make sure that title is larger than the body text and clearly visible. (For a rough estimate of appropriate size, stand approximately 5 feet away from your computer screen. If you can read the text, it’s big enough). You’ll want the title text to appear larger to provide visual separation.</td>
</tr>
<tr>
<td><strong>Font</strong></td>
<td>Title fonts can afford to be “fancier”. Although some fonts are more difficult to read from a distance, the larger size of your titles can help alleviate that problem, and more elaborate fonts can draw additional attention to your main points.</td>
</tr>
<tr>
<td>---</td>
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</tr>
<tr>
<td><strong>Color</strong></td>
<td>Light colored font on dark backgrounds OR Dark colored font on light backgrounds</td>
</tr>
<tr>
<td></td>
<td>(If you use colors that don’t distinctly differ from your background color, consider using a drop shadow effect to enhance the visibility of your text.)</td>
</tr>
</tbody>
</table>

- **Bullet points**
  - Try to stick with one main idea per slide (which would be the title of the slide), and use bullet points to display a few supportive statements. Remember, your PowerPoint slides aren’t a textbook, and reading more than a small or medium amount of text on a slide is difficult, and will likely distract students from your lecture.

- **Animation**
  - The effects and transitions in PowerPoint are another tool that can either draw attention to your points or distract students from them. Using animations, your presentations can becomes more dynamic and interesting. You can also control which elements of your slide to show at a given time. For example, if your slide has 3 bulleted points that you want to discuss, you can show each bullet point one at a time, to focus the slide on what you’re discussing. This will keep students from skipping ahead in their notes instead of listening to your lecture.
  - **Cautions:** Again, you should strive for simplicity. Too many words, phrases, and colors flying in, out, or around
your screen is both distracting and visually “tacky”. Always try to strike a balance between the two extremes by being simple, consistent, and clear, and interesting in a way that effectively supplements your lecture material. The degree your presentation leans in one direction or the other will depend on the material of your lecture; do what you feel will help your students understand the material the best.

- Test using animations in your presentation before using them in class. A poorly performing presentation or a professor who doesn’t know how to use it is distracting, more so than a professor who feels uncomfortable with his/her presentation medium.