Communicating Your Ideas
Designing and Delivering
Technology Enhanced Presentations

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This handout will detail the key points highlighted in presentations and seminars I give on presentation design and delivery. The document also includes a list of references along with readings and websites you can refer to for further information.

Introduction

“The sound of one room napping…”

Garr Reynolds in Presentation Zen, his web blog devoted to issues on professional presentation design, bemoans the stultifying effects of PowerPoint in business and academic presentations. He noted one presentation on the topic of using multimedia in the classroom. Sound exciting? The presentation, however, was made up of an endless stream of bulleted text slides detailing what is possible today with multimedia. This is ironic…but not atypical.

In his posting, “Is it finally time to ditch PowerPoint”, Reynolds suggests that this is the sign of a “sick” PowerPoint culture. “Many conferences today require speakers to follow uniform PowerPoint guidelines (to insure that they all look fairly similar) and submit their PowerPoint files far in advance of the conference. The conference now takes these “standardized PowerPoints” and prints them in a large conference binder or includes them in the conference DVD for attendees to take home. What the conference organizers are implying, then, is that an encryptic series of slides featuring bullet points and titles makes for both good visual support in your live presentation and for credible documentation of your presentation content long after your talk has ended.” (Taken from Reynold’s blog, www.presentationzen.com April 2007)

In a PowerPoint driven set of meetings, audiences mindlessly move from one room to the next waiting for the time that they can catch the presenter to discuss face to face the practical aspects of that presenter’s ideas. PowerPoint, the tool that was employed to enhance communication becomes a barrier resulting in a disconnect between the audience and the presenter. In response to this typical presentation scenario, Seth Godin, renowned speaker and author, suggests we become atypical if we’re serious about making an impact. "Stories and irrational impulses are what change behavior. Not facts or bullet points."

Conference speakers do need to appeal rationally to audience, of course. Humans are rational beings after all, especially the scientific and public health community. But our evidence, proof and "facts" need to be placed in context and need to connect and appeal to the emotional too. Some might argue that emotion is not necessarily irrational, that intelligence and emotion go hand in hand. However, facts alone are rarely a sufficient condition for change or impact (though they are a necessary condition).

In my talks on presenting using technology I discuss the three critical elements of communication - speaker, audience, and message. The prevailing PowerPoint culture causes all three of these to suffer. The root of this suffering stems from an attachment to old PowerPoint habits and a lack of understanding about how to best connect with an audience. Rather than a focus on what
PowerPoint can do for your presentation, I would like to focus on how to use PowerPoint while maintaining harmony, that is an effective balance that acknowledges the importance and inter-relationship of the three elements that go into making your communications effective.

Effective Use of Multimedia
When designing a presentation and creating the visuals, we should keep in mind the way our audience will actually process our presentation and then use the technology accordingly. Much can be learned from a review of the key findings in the field of cognitive science concerning how people learn best in multimedia presentation settings. In his book *Multimedia Learning*, cognitive scientist, Dr. Richard Mayer, summarizes the key assumptions of multimedia learning theory.

"Cognitive scientists have discovered three important features of the human information processing system that are particularly relevant for PowerPoint users: dual-channels, that is, people have separate information processing channels for visual material and verbal material; limited capacity, that is, people can pay attention to only a few pieces of information in each channel at a time; and active processing, that is, people understand the presented material when they pay attention to the relevant material, organize it into a coherent mental structure, and integrate it with their prior knowledge." (Rich Mayer, from an interview in Sociable Media Inc.)

Review of Key Findings

- **Multimedia Effect** - Narration with pictures (visuals) is better than narration alone.
- **Modality Principle** - People learn better when words are presented as narration rather than text.
- **Redundancy Principle** - People learn better from narration & graphics rather than narration, graphics, & text.
- **Coherence Principle** - People learn better when extraneous visual material is excluded.

And therefore if we translate these findings into the use of PowerPoint we must realize:

- Presentations must be both verbal & visual.
- Too much slide information overloads people’s cognitive systems.
- Visuals should be understood in 3 seconds? If not, redesign them to support your talk.
- Slide design & delivery must help people organize, integrate information.

The Power of Stories
One of the best ways to both deviate from the series of bulleted slides and to connect with your audience is to include stories in your presentations. The easiest way to explain complicated ideas is through examples or by sharing a story that underscores the point. Stories are easy to remember for your audience. If you want your audience to remember your content, then find a way to make it relevant and memorable to them. You should try to come up with good, short, interesting stories or examples to support your major points.

At one point I was consulting with someone who wanted to improve her PowerPoint presentations. She was working with a multi-service health care agency and went out to speak to donors and other agencies about her organization. When she showed me her first slide it became clear to me why she felt, as she said “…I feel like I’m not connecting with my audience.” When I asked her to tell me about what the agency did she continued to talk about the model. When I interrupted her again I asked if she could tell me a story about those whose lives the agency had affected. She began to tell me about a young woman named Maria, her growing up in a broken home, her pregnancy, her need to continue to go to community
college she was enrolled in, the daycare and related support which was provided, the clinic and
other community support that came into play when her young son developed heart disease. She
told the story with passion and quickly the boxes in the model came to life for me. When she
began to use the story to start her presentations she immediately began to connect. She
continues to use the model; however, in a more simplified form.

In addition, it is useful to think of your entire 30 minute presentation as an opportunity to "tell a
story." Good stories have interesting, clear beginnings, provocative, engaging content in the
middle, and a clear, logical conclusion. Presentations given with very average delivery and
average graphics, can be relatively effective when the speaker tells relevant stories in a clear,
conceise manner to support his points. Rambling streams of consciousness will not get it done;
audiences need to hear (and see) your points illustrated.

In his book, **Beyond Bullet Points**, Cliff Atkinson analyzes audience frustrations with
PowerPoint: "What they’re saying, basically, is that slides filled with bullet points create obstacles
between presenters and audiences. You might want to be natural and relaxed when you present,
but people say that bullet points make the atmosphere formal and stiff. You might aim to
be clear and concise, but people often walk away from these presentations feeling confused and
unclear. And you might intend to display the best of your critical thinking on a screen, but people
say that bullet points “dumb down” the important discourse that needs to happen for our society
to function well."

He continues, "We can strike a balance between the benefits of storytelling and the need for
reasoning by applying a specific type of story *structure* to the complex requirements of a
presentation. We can reach back into history to rediscover the classical foundation of both
storytelling and persuasion then apply those concepts to PowerPoint presentations today to
dramatic effect. A persuasive story structure is strong enough to hold whatever your
presentations demand, including the rigor of your critical thinking and the sophisticated media
techniques audiences expect. Applying this type of story structure to your PowerPoint
presentations is the start to producing a completely new alternative to the conventional bullet
points approach." (Introduction, p. xiii)

You can see a handout describing his technique of storyboarding a presentation to engage your
audience and connect them with your ideas in our resources section.

**The Elements of Communication**

The basic communicative act is the transfer of a
message, or attitudes and feelings from a source
to a receiver. The communication process has
three major components: the speaker, the
audience and the message. This triangle makes
up the oral communication function. Each of these
components is both independent and
interdependent. The speaker influences the
audience, the audience influence the speaker, and
the nature of the message influences both speaker and audience. Where do you imagine most
presenters focus their attention in designing and delivering a presentation? If you guessed the
message, you’re probably right. The content is presumed to be the “meat” of the talk. The role
that the speaker plays and the importance of a careful audience analysis is usually overlooked.
However, understanding the role of each of these components is imperative to making and delivering a message that will get the intended results.

**The Speaker**

**You are a Delivery System**

Oral messages are transmitted to a listener via vocal or visual channels or a combination. Your message may be enhanced, distorted, or minimized by the effectiveness or ineffectiveness of your delivery. Delivery systems may be modified through self awareness, analysis and systematic practice.

**Vocal Behaviors**

Your voice communicates an attitude along with the message which you intend with your words. Think about the attitude you conveyed to your audience in your last public presentation. Did you communicate enthusiasm and excitement? Uncertainty, perhaps...or skepticism? Through practice and self awareness, you can learn to manage your vocal channel and become a more effective communicator. Your voice can involve the listener, highlight ideas, focus attention, and reinforce intended attitudes. You can match your meaning and achieve vocal impact through changes in tempo, volume, pitch and pause time.

Remember (and practice) these vocal behaviors:

- **Be clear** – Good communication is distinct and well articulated
- **Project** – Adjust your volume according to both audience size and message
- **Tempo** – Choose a comfortable pace for your talk. If you’re nervous you will probably speed up.
- **Pause** – Include purposeful pauses for emphasis, anticipation and reflection. Provide you audience time to think. But, avoid the pause punctuated with “and-uh....”
- **Vocal variety** – Try to avoid a monotone, or fixed pattern of speaking. Emphasizing one word in a phrase or sentence can provide the needed variety as well as focusing the meaning of the sentence.
- **Vitality** – Even when conveying a sense of calm, the speaker needs to be alive! Enthusiasm is contagious...

**Non-verbal behaviors**

Effective delivery also involves the visual impact that the speaker has on the audience. Your body is always communicating. In fact you essentially begin your presentation when you enter the room in which you will be speaking. Body messages, including those sent via your demeanor and your dress may reinforce or counteract the vocal channel. Therefore, as you approach the podium do so purposefully and positively. Poise will carry you and your message a long way so it’s to your benefit to be aware of your impact and actions. Most of all we want to appear authentic. But what does it look like to be authentic? This is not easily described. It means to be relaxed and to convey confidence. Usually this requires an erect posture, though not stilted which would appear awkward. Be relaxed, but alert.

(Hint: If you feel nervous and want to relax squeeze your small finger and thumb together hard for 10 seconds. Do this three times. Just this physical effort will be enough to kick in the endorphins that are at work when you go to the gym and come out feeling clear and relaxed. This can even be done behind your back, inside your pocket, etc. Controlled breathing for a minute will also work wonders)

**Using your body**

Using definite gestures can reinforce or clarify your message. Substitute purposeful activity for random nervous movements. Visual clues are carried through head movements as well as facial expressions. You can influence audience responses by your own appropriate expressiveness. Usually speakers stand in one spot, often communicating a sense that they are glued there. Often they are tied literally and figuratively to the PowerPoint on their laptop. A cordless mouse can take care of the technical aspects of this. If appropriate, move to the side or in front of the lectern
to get nearer to and better engage the audience. If you need a microphone due to the audience size, but can’t get a portable one, then don’t sacrifice the volume of your delivery. An occasional step to the side or towards the audience for emphasis can enhance your talk. Stay close and involved with your audience.

**Gestures and stance**
A stiff presenter who provides no (or very few) gestures when talking can be as ineffective as someone whose constant gesturing annoys his or her audience. When speaking to an audience gesture as you would in an animated conversation with a friend, nothing more and nothing less.

![Positions](image)

Hands in pockets  Behind back  Arms crossed  Fig leaf  Wringing hands

Extended use of any of the positions above is likely to distract from your presentation rather than adding to it. Try to avoid these positions. A relaxed use of your hands at the side or joined occasionally in front, with an occasional gesture is probably best. Orient your shoulders to your audience. That will keep your eyes off your screen and on the audience where they should be.

**Eye contact**
If you were to interview someone who looked at the wall or the floor during an interview, he or she would not inspire your confidence. In our culture we expect good, direct eye contact. Eye contact establishes and maintains the channel of communication between people. It helps to establish and build rapport. It is absolutely the best way to involve the audience and make the presentation more personable. It also relaxes the speaker and reduces the feeling of isolation. A rule of thumb is to look at one person for 1-3 seconds, without moving your eyes around the room too quickly. Perhaps most importantly, when you look at your audience, see them! Be aware of their reaction to your talk. If you are talking with them and not at them, you may be able to solicit questions or modify your talking points accordingly.

**Audience**

**Audience analysis**
There is no presentation without an audience. Your primary focus should be on understanding and adapting to your audience. You need to consider what is important to this group. Different organizations have different value systems. Giving a presentation outside you department is probably different from giving the same talk to an external audience. The speaker’s approach and the message should be designed to match specific audience expectations and needs. All audiences are different. They have different needs, expectations and knowledge levels. Only after you have analyzed what these are can you adapt your presentation to a given audience.
Your audience analysis should include:

1) Size of audience (how many people)
2) Audience knowledge of topic (excellent, good, poor, mixed)
3) Beliefs regarding presentation topic (partisans, neutrals, opponents, mixed)
4) Age (young, old, middle-aged, mixed)
5) Gender (male, female, mixed)
6) Economic status (income levels)
7) Attitudes towards you (for you against you, neutral, mixed, unaware)
8) Educational level (lower-middle school, high school, college, graduate, mixed)
9) Needs and wants of the group
10) Social standing and attitudes

Adapting to your audience
Adapting your talk to different audiences is perhaps the most difficult and at the same time, the most neglected aspect of public speaking. Initially you need to adapt to the occasion. First determine the basic function of the presentation to entertain, inform or persuade. Next you need to simplify the subject for the time allowed and the type of audience. Be sure to use simple terms and explain unfamiliar ones. Use the background of the audience in this regard as often as possible. Also consideration needs to be given to the delivery. Adapt the loudness of the voice to the size of the audience. Use a more energetic delivery and a slower tempo for a large audience. Also be sure to slow down for complex or new concepts. Lastly, you need to adapt to the feedback (both verbal and non-verbal) picked up during the presentation. Be aware of both positive and negative feedback and adapt to these signals.

Clarification
Different words mean something different to different people. A principle factor is the appropriate choice of words given the audience and the situation. Words chosen effectively can clarify, simplify, excite and empower your message.

Clarification is perhaps the most important communication goal. Techniques that help in this regard include repetition, restatement, definition, examples, comparison-contrast, previews, reviews, and setting up “road signs” (markers setup primarily by visuals that help prepare the audience for what is to come).

Additionally you need to be sure to highlight the ideas you want your audience to remember. Highlighting can be accomplished through purposeful pauses, physical and vocal emphasis (gestures and use of vocal variety), repetition and restatement.

Audience Involvement
Whenever possible bring your audience into the presentation. The true control of the presentation should be with the presenter, but the audience has a significant part to play in the presentation. To keep them active and involved with your ideas here are some ideas.

1) Use feedback. Ask the audience for a specific response.
2) Make specific references to the audience using the word “you”.
3) Make use of the rhetorical question (occasionally, but not too much).
4) Keep their interest by varying your speaking style (vocal emphasis, pauses, gestures and movements, visuals).
Determining Your Message

Clarifying your Objective
As in any planned undertaking it is important to set out the goals. This is no less the case in developing a presentation. What do you want your audience to know or to do as a result of your presentation? Presentations can be broadly categorized as informational (you want them to know something) or persuasive (you want them to do something). An informational talk should focus on clarity of information, while a persuasive talk focuses on the acceptance of ideas.

As the diagram above suggests these are not separate types of presentations, but rather exist on a continuum. For example a status report on a project would be on the right side of the diagram. However, all persuasive talks contain elements of information giving and all informative talks contain elements of persuasion, although they may be subtle. Heading in the direction of the arrow, presentations become more and more persuasive. When the center line is crossed the presenter is telling the audience what change is requested. Presentations that can be placed on the informative side imply that some action should be taken and do so in a stronger manner as the center is approached.

In a persuasive talk it is important to tell the audience specifically what benefits they will receive if they do what you ask. You will be tempted to list these benefits; however, the more you want to persuade, the less useful slides containing bulleted lists will be and the more useful images and stories that relate to human emotions and values will be. Also consider that if providing information is the only point of the talk they might as well “read the book”!

Organizing Your Ideas
It is a good idea to first consider the ending to your talk. What do you want them to walk away with? When you have a few take away points clearly in mind you can begin to organize the body of the presentation, leaving the introduction to last. Rather than diving right into PowerPoint it’s also suggested to outline you ideas with paper and pencil or a whiteboard. Using Post-it notes can be a useful way of indicating main points and allowing you to move them around appropriately, based on the structure you decide to use. When the main points are identified, sub points can be listed on separate Post-Its and placed under the main ideas. The pattern I recommend is to begin to collect information by brainstorming some possible main ideas. Then select the most appropriate of these ideas. If you end up with more than 3-4 ideas try to make the other sub points. Then reflect on your audience and your purpose. If you’re clear on these start to assemble a presentation that will connect your ideas and objectives with your audience’s needs, expectations and existing attitudes.
Structuring Your Message
The arrangement of your message can influence the way it is received. Effective packaging can improve your chances of acceptance and understanding. Effective presentations make the pattern of organization crystal clear to the audience. It's a good idea to in some way make this structure clear in your introduction.

Introductions
The way you begin your speech is critical to your presentation. In this phase you gain the attention and interest of the listener and establish rapport. The introduction also helps set the frame for understanding. Here are a few ways to begin:

1) Statement of the central idea – this straightforward approach includes stating your central position and how you plan to develop your arguments right at the beginning of your talk.
2) Rhetorical question – This is a variation of the central statement whereby you ask a question containing the central idea of the speech. When this is a good question, your listeners wait for an answer and you have their attention.
3) Summary of main points – Sometimes your audience will more readily understand your subject if you review its main points before developing the body of the talk.
4) Familiar example – We all connect with the familiar. An opening referencing something all are familiar with establishes a common bond and helps build rapport.
5) Striking facts – The facts presented crisply and with little elaboration can speak for themselves. Let the listener feel the impact of the truth. Current events can be tied in with this approach.
6) Short story - Some background information or an anecdote is a well proven way of making a point and setting the “mood” for your talk.

Ron Hoff, in his handy little book, Do Not Go Naked into Your Next Presentation, suggests that people will make a decision about you as a speaker with amazing speed. He thinks it's about ninety seconds.

Organizational patterns
Developing an awareness of organizational patterns will enable you to more easily handle any kind of speaking situation. Here are some often practiced possibilities:

1) Space – if your subject has physical attributes, like a hospital, you can move around accordingly
2) Time – If talking about a medical discovery such as Similac at New England Medical Center you could trace the early development, the involvement of the children’s’ clinic, the involvement of the Floating Hospital for Children and so forth.
3) Cause/Effect – In talking about the movement of the population to the suburbs, you could discuss the causes: better ambulance service, more personalized health care, etc. Then you could discuss the effects: relocation of health clinics, demands for community services.
4) Problem/solution – In talking about patient relations, you could discuss the problem as you see it and the solutions you envision.
5) Comparative – In talking about surgical techniques you could explain the similarities and differences between them. Be sure to label the points and explain each point of comparison to the audience.
6) Procedural – For some subjects the main points follow a natural order of appearance.

Tell them, tell them and tell them...
Tell them what you are going to tell them, then tell them, then tell them what you told them. Almost everyone has heard this advice in connection with public speaking. And there’s a bit of truth to it. Repetition in some moderation can drive home your message. However, I would encourage a 4 step method. After you have told them the first time (or perhaps the second time), tell them why. Why is this important? Give your audience something to think about. But, if in planning your presentation, you ask yourself "so what?” and you don’t have a good answer, then either cut out that part or if it’s critical to your talk, start over by reconsidering your main points.
Edward Tufte, well known author on the display of visual data makes a similar point in his book, *Visual Explanations*:

"Near the beginning of your presentation tell the audience what the problem is, why the problem is important, and what the solution to the problem is. If a clear statement of the problem cannot be formulated, then that is a sure sign that the content of the presentation is deficient." (P.68)

**Keeping it simple**

Simplicity is hard for the presenter, but it is generally appreciated by the audience. This takes more forethought on your part to determine what to include and what to leave out in order to communicate the essential message. Try this exercise. If your audience could remember only 3 things about your talk what should it be?

(1) ____________________
(2) ____________________
(3) ____________________

**Ending Strong**

No presentation is complete without both a good introduction and a strong conclusion. Your conclusion should be firm and brisk. This is what the listener will remember. Remember to end strong and by showing your passion. Here are some possibilities for effective endings.

1) Summary – review that you said and restate your main position.
2) Highlighting – for a more dramatic ending, illustrate the main point of your talk in the conclusion
3) Appeal for action – If you wan the user to take a specific action, here is the place to give specific directions.
4) Restatement of opening – This approach may be the bookend to the rhetorical question posed at the beginning. Give the listener something to think about (or rethink), based on your presentation.
5) Personal commitment – here the speaker states his own commitment to the proposed plan of action.

**Presenting at a technical meeting**

A technical presentation and a technical paper are two different things. The paper should be detail oriented and more formal, while the presentation should be more conversational. Be sure you are talking about the paper and not reading from it. Aspects you will likely want to include are background of the problem, research approach, methodology, results, interpretation and implications for others. In a presentation you want to be spending the bulk of your time on the background, interpretation and, most importantly, the implications of your work.

**Producing Effective Handouts (Speaker Notes)**

Particularly in scientific and technical presentations handouts perform several functions including reinforcing important information, summarizing action items for the audience to follow-up on, supplying supporting data without having to clutter your slides, and last but not least, giving your audience something tangible that can take away and refer to. PowerPoint handouts, that are the conventional six slides per page, are fairly limited in this regard. It is better to place the details of your talk in Speaker Notes and use these as handouts.

Edward Tufte, an ardent PowerPoint critic suggests, “…you should give high resolution talks that are clear and also rich in content. Seek to maximize the rate of transfer of information transfer to your audience. Yet many presentations rely on low-resolution devices to communicate information - reading aloud from images projected on the wall...Instead try a high resolution method. No matter what, give everyone in the audience one or more pieces of paper, packed with material related to your presentation. Handouts can show pictures, diagrams, data tables, research methods, references, names of people at the meeting, or the complete text of the paper outlined in your talk. Unlike evanescent projected images, permanent and portable paper has credibility. Paper serves as a testimonial record documenting your talk, letting your audience know that you take responsibility for what you say." (Visual Explanations, P. 69)
When to distribute the handouts, before, during or after the talk, is a tricky matter. After is probably the best, as when people are reading they are not listening. However, if your audience expects to have a handout during the presentation you need to determine whether you want to satisfy that need or explain that the handouts are available afterwards. If you have related materials that do not add substantially to the presentation, hold these back and distribute after the presentation.

**Creating Visuals that Communicate**

**Keep it Simple**
People came to hear you and be moved or informed (or both) by you and your message. Don't let your message and your ability to tell a story get derailed by slides that are unnecessarily complicated, busy, or full of what Edward Tufte calls "chart junk." Nothing in your slide should be superfluous, ever.

Your slides should have plenty of "white space" or "negative space." Do not feel compelled to fill empty areas on your slide with your logo or other unnecessary graphics or text boxes that do not contribute to better understanding. The less clutter you have on your slide, the more powerful your visual message will become. Using a design grid when laying out the slides will help keep elements aligned and organized in a way that will look and feel good to the viewer. (In PowerPoint from the View menu, choose Grid and guides)

**Limit Text and Bullets**
Your presentation is for the benefit of the audience. But boring an audience with bullet point after bullet point is of little benefit to them. This brings us to the issue of text. The best slides may have no text at all. This may sound insane given the dependency of text slides today, but the best PowerPoint slides will be virtually meaningless without the narration (that is you). Remember, the slides are meant to support the narration of the speaker, not make the speaker superfluous.

I've already mentioned this, but as long as the topic is text, please remember to never, ever turn your back on the audience and read text from the slide word for word.

In terms of slide design, the rule of thumb for some time has been no more than 6 lines of text and 6 words per line. In light of the emphasis that is now given to using photographs and other quality images, you might want cut this in half and make it 3 and 3. (I realize that in technical and scientific talks this will be very difficult.) Be sure to use appropriate colors for contrast. I suggest using upper and lower case as it is more natural to read. I use only initial line capital letters on the body text, but I suggest initial word capitals in the title text. Do not use all capital letters and avoid underlining text. There are many way (text boxes, colors, bolding) to make text stand out.

**Fonts**
Fonts communicate subtle messages in and of themselves, which is why you should choose fonts deliberately. Use the same font set throughout your entire slide presentation, and use no more than two complementary fonts (e.g., Arial and Arial Bold). Make sure you know the difference between a Serif font (e.g., Times New Roman) and a Sans-Serif font (Helvetica or Arial). Serif fonts were designed to be used in documents filled with lots of text. Serif fonts are said to be easier to read at small point sizes, but for on screen presentations the serifs tend to get lost due to the relatively low resolution of projectors. San-serif fonts are generally best for PowerPoint presentations, but try to avoid the ubiquitous Helvetica. Gill Sans which is somewhere in between a serif and a sans-serif font and is professional yet friendly and "conversational." Regardless of what font you choose, make sure the text can be read from the back of the room.

**Limit Animations**
Use object builds and slide transitions judiciously. Object builds (also called animations), such as bullet points, should not be animated on every slide. Some animation is a good thing, but stick to the most subtle and professional (similar to what you might see on the evening TV news broadcast). A simple "Wipe Left-to-Right" (from the "Animations" menu) is good for a bullet point, but a "Move" or "Fly" for example is too tedious and slow (and yet, is used in many presentations
today). Listeners will get bored very quickly if they are asked to endure slide after slide of animation. For transitions between slides, use no more than two-three different types of transition effects and do not place transition effects between all slides.

One underused aspect of PowerPoint is the use of hyperlinks to produce a non-linear presentation. You can place buttons on slides that link to other slides that you may chose to use or not. You can also link to other slides that provide details to a slide that has more text than is desirable, but which shows the whole picture. In the Resource Section you can find out how to create hyperlinks and hide slides so that when you step through your presentation in a linear fashion, these slides do not show.

Use high-quality graphics including photographs. You can take your own high-quality photographs with your digital camera, purchase professional stock photography, or use the plethora of high-quality images available on line (be cautious of copyright issues, however). Never simply stretch a small, low-resolution photo to make it fit your layout - doing so will degrade the resolution even further.

Avoid using PowerPoint Clip Art or other cartoonish line art. Again, if it is included in the software, your audience has seen it a million times before. It may have been interesting the first time, but clip art often undermines the professionalism of the presenter. There are exceptions, of course, and not all PowerPoint art is dreadful, but use it carefully and judiciously.

I often use images of people in my slides, as photography of people tends to help the audience connect with the slide on a more emotional level. Even a report on a research study, as shown here, can benefit from a well chosen photograph.

Develop a Theme, but avoid PowerPoint Templates
You clearly need a consistent visual theme throughout your presentation, but most templates included in PowerPoint have been seen by your audience countless times. Your audience expects a unique presentation with new (at least to them) content, otherwise why would they be attending your talk? No audience will be excited about a cookie-cutter presentation. Therefore shy away from any supporting visuals, such as the ubiquitous PowerPoint Design Template, that suggests your presentation is formulaic or prepackaged.

You can make your own background templates which will be more tailored to your needs. You can then save the PowerPoint file as a Design Template (.pot) and the new template will appear among your standard Microsoft templates for your future use. You can also purchase professional templates on-line (for example: www.powerpointtemplatespro.com).

Use appropriate graphics
Always be asking yourself, “How much detail do I need?” Presenters are usually guilty of including too much data in their on-screen charts. There are several ways to display your data in graphic form; here are a few things to keep in mind:

- **Pie Charts** are used to show percentages. Limit the slices to 4-6 and contrast the most important slice either with color or by exploding the slice.
- **Vertical Bar Charts** used to show changes in quantity over time. Best if you limit the bars to 4-8.
- **Horizontal Bar Charts** used to compare quantities. For example, comparing sales figures among the four regions of the company.
- **Line Charts** used to demonstrate trends. For example, a simple line chart can show that sales have gone up every year. Without cluttering slides think about adding labels to charts and graphs to make your point or further contextualize your data.
In general, tables are good for side-by-side comparisons of quantitative data. However, tables can lack impact on a visceral level. If you want to show how your contributions are significantly higher than two other parties, for example, it would be best to show that in the form of a bar chart (below, right). If you're trying to downplay the fact that your contributions are lower than others, however, a table will display that information in a less dramatic or emotional way.

<table>
<thead>
<tr>
<th>Group 1</th>
<th>Q1</th>
<th>Q2</th>
<th>Q3</th>
<th>Q4</th>
</tr>
</thead>
<tbody>
<tr>
<td>Group 2</td>
<td>2</td>
<td>4</td>
<td>4.5</td>
<td>5</td>
</tr>
<tr>
<td>Group 3</td>
<td>1</td>
<td>2</td>
<td>6</td>
<td>3.5</td>
</tr>
</tbody>
</table>

One more thing about presenting numbers. Ron Hoff offers that more important than presenting numbers is to explain what's behind the numbers. What do they mean? Which point to a trend and which point nowhere? He suggests that the key to presenting them is to identify the dead ones, bring the others to life and keep summarizing.

**Use color wisely**

Color evokes feelings. Color is emotional. The right color can help persuade and motivate. Studies show that color usage can increase interest and improve learning comprehension and retention. Always remember that one color by itself will look different than when that color is used next to another color. You need to consider colors in combination.

Colors can be divided into two general categories: Cool (such as blue and green) and Warm (such as orange and red). Cool colors work best for backgrounds as they appear to recede away from us into the background. Warm colors generally work best for objects in the foreground (such as text) because they appear to be coming at us. If you will be presenting in a dark room (such as a large hall), then a dark background (dark blue, grey, etc.) with white or light text will work fine. But if you plan to keep most of the lights on (which is highly advisable) then a white (or some lighter) background with black or dark text works much better.

**Use video and audio when appropriate**

Using video clips to show concrete examples promotes active cognitive processing, which is the natural way people learn. You can use video clips within PowerPoint without ever leaving the application or tuning on a VCR. However, be aware that video inserted into PowerPoint requires the video file (Windows Media files are recommended) to be included along with the PowerPoint file. Using a video clip not only will illustrate your point better, but also it will serve as a change of pace thereby increasing the interest of your audience. You can use audio clips (such as interviews) as well. Something to avoid, however, is cheesy sound effects that are included in PowerPoint (such as the sound of a horn or applause when transitioning slides). The use of superfluous sound effects attached to animations is a sure way to lose credibility with your audience.
Use the Slide Sorter
According to the segmentation principle of multimedia learning theory, people comprehend better when information is presented in small chunks or segments. By getting out of the Slide View and into the Slide Sorter view, you can see how the logical flow of your presentation is progressing. In this view you may decide to break up one slide into, say, two-three slides so that your presentation has a more natural and logical flow or process. In this view you will be able to capture more of the gestalt of your entire presentation from the point of view of your audience. You will be able to notice more extraneous pieces of visual data that can be removed to increase visual clarity and improve communication.

Delivering Your Presentation

Controlling the presentation environment
Where the audience is sitting, where you stand and where the projector, laptop and screen are have a significant impact on the effectiveness of your presentation. And often these arrangements can be altered to place each component in an optimal relationship.

First let’s consider room arrangement. The arrangement of the room will determine the extent to which your audience interacts with each other and with you. If you want to encourage audience interaction with each other which of these arrangements would you choose? Which arrangement would help maximize the possibility that you could see everyone? If possible it is best to have the entrance and exit at the rear of the room so as people go and go it will minimize distraction. Try to have only as many seats as there are people to encourage people to sit as close as possible.
Where you stand in relationship to the audience and projector is extremely important. In the diagrams below the picture on the right shows the speaker in a more favorable position. Make sure that you are not competing with the projected image.

Learn to direct the audience’s focus where you want it. When you are using PowerPoint your audience’s attention is divided. To keep them focused primarily on you, you can redirect heir focus in several ways. Most useful is the “B” key technique. In PowerPoint slide show mode you can hit the B key and the screen will turn black. Audience attention will shift to you immediately. Hitting the B key again will bring it back on. Also, occasionally taking a step towards the audience will redirect their focus.

Don’t hide behind the lectern. Get out from behind it as much as possible. A cordless mouse and wireless microphone will let you leave the laptop and place yourself in the optimal position to maximize your effect.

Keep you eye on the audience. Do not speak until you have made eye contact. If you write something on a flip chart, stop talking while you write. And never read off your slides.

Lighting is another factor which hopefully you can control. Design your visuals so you can present with the lights on. (Light background, dark text). If you need to turn down the lights, see if the room has a dimmer to provide some light in the room. A dark room is deadly for even the most charismatic presenter.

I don’t recommend using a pointer, but in a few rare cases it can be effective. More often its constant waving is off putting for the audience and this counteracts its usefulness.

A Few Final Words

Armed with the information presented above and with a bit of practice, you are ready to create an impact in your next presentation. Before I close I’d like to leave you with a few more pieces of advice. When you go to your next presentation arrive early. Get acclimated to the room and solve any unexpected problems you encounter. Speak to other early comers if you can and greet people who have come to hear you. Something good will happen. During your presentation take charge of the room. You are the expert (or you would have not been asked to speak); therefore, you should take charge. Arrange the room and the interaction for optimal results. Don’t be afraid to tell the audience what to do. And lastly, don’t be afraid to finish early. Leave your audience wanting more. As long as you’ve made your point, no one will object to leaving early. Good luck!

References
The following books and websites provided ideas for this paper:

Presentation Related Resources

Presentations

Beyond Bullet Points: Using Microsoft PowerPoint to Create Presentations That Inform, Motivate, and Inspire
by Cliff Atkinson, Microsoft press

The Short Road to Great Presentations
by Peter Reimold & Cheryl Reimold, IEEE Press

Looking Good in Presentations, Third Edition
by Molly W. Joss. Roger C. Parker, The Coriolis Group

Presentations That Get Results: 14 Reasons Yours May Not
by Marian K. Woodall, Professional Business Communications

Do Not Go Naked into Your Next Presentation
By Ron Hoff, Andrews and McNeel

Technical Presentation Skills
By Steve Mandel, Thomson Course Technology

And your Point Is?
By Douglas Jefferies

Design/Visual Communication

Multimedia Learning
by Richard Mayer Cambridge University Press

The Elements of Graphic Design
by Alexander White, Allworth Press

7 Essentials of Graphic Design by Allison Goodman
HowDesignBooks

Visual Explanations
by Edward Tufte Graphics Press

The Cognitive Style of PowerPoint
by Edward Tufte, Graphics Press

How to Get Your Point Across in 30 Seconds or Less
By Milo Frank

Websites

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http://www.waukesha.k12.wi.us/WIT/PutPowerBackIntoPowerPoint.html
(putting the Power Back in PowerPoint)