

Matt Vassar
Lecturer, Oral Communication Program
School of Engineering
Stanford University

Over 30 million PowerPoint presentations are created each and every day, according to a 2001 estimate from Microsoft (as cited by Parker, 2001). Major corporate, political, and personal decisions are decided as a result of these PowerPoint presentations. There is so much at stake in creating a deeply meaningful and impactful PowerPoint presentation, and yet, of the 30 million PowerPoint presentations created each day, only a very small percentage of them are any good. People have just come to accept that they will have to sit through a large number of boring PowerPoint presentations, but it is because there are so many ineffective presentations that you have a real opportunity to get audiences to stand up and take notice of just how much different and more effective your presentational style truly is.

In order to develop such a presentational style, you must remember that *you are the main feature*. Your visual aids are precisely that: aids; they are not there to give the presentation, and they are not there to steal the focus from you. Instead, you should use your visuals to enhance your message and bring emphasis to the points that you are making. Put simply, you are there to present, while your visual aids are there to represent. This is precisely where so many PowerPoint presentations go awry; people end up putting together visuals that overwhelm the presentation and steal the focus from themselves, the speaker.

Part of the reason for this is that we have been taught all of our lives to communicate verbal expressions, but have very little training in conveying visual expressions. A lot of people do not make the effort to learn to present visually, and instead try to apply verbal expressions to their visual aids, which creates a redundancy where the presenter is saying exactly what is written on their slides; members of the audience then wonder why they are listening at all when they could have just read the presentation.

The below advice will teach you to harness the concepts of visual presentation, and greatly increase the efficacy of your slides. In order to take advantage of such concepts, you must think visually at each stage of the presentation, from *Defining* to *Designing* to *Delivering*.

Defining the Presentation:

Before falling into the trap of thinking that you always need to use PowerPoint in every single presentation, take a step back and ask yourself whether this particular presentation would even

benefit from PowerPoint. There are certainly a lot of presentations that are better off without visual aids (for instance, would Martin Luther King Jr. be as effective if he delivered his “I Have a Dream Speech” in PowerPoint?). Certain subjects benefit from having a more personal presentation style where technology is not utilized. Other subjects are of a simple nature and do not require visuals to get the point across.

There are a lot of reasons why visual aids might not be needed, so before you start thinking about what your visuals may be, ask yourself why you even need them. Are your visuals helping to simplify information by showing diagrams? Do your visuals provide powerful images that elicit an emotional response from the audience? Will your visuals help to emphasize certain points of data that the audience should remember? Regardless of what your reason is, you should make sure that you have one before you decide to incorporate visuals into your speech.

Once you decide to use visuals, Cliff Atkinson, in his 2005 book *Beyond Bullet Points*, provides a good framework for going about producing the entire presentation; you should think of the various stages of production as similar to those of a movie. Start by **writing the script**, then **sketching the storyboard**, and finally **producing the visuals**.

Writing the Script:

Before even thinking of your visuals, it is necessary to come up with the content to your speech. Visual thinking, as will be discussed later, is best kept simple, but your thoughts should not be distilled in the same way that the representation of your thoughts is! So many speakers start in PowerPoint, before they have developed their content, and then end up writing their content around their simplified PowerPoint slides. This, however, is putting the cart before the horse and the result ends up being a speech that does not have very strong content. Recognize that the verbal medium should influence the visual one, and not the other way around.

As in the past, you should consider the various components of your speech (intro, body, conclusion), and analysis of your audience should influence the development of these various components. Considering your audience is important in determining your content and, as you will discover in a moment, will also become important in determining your visuals.

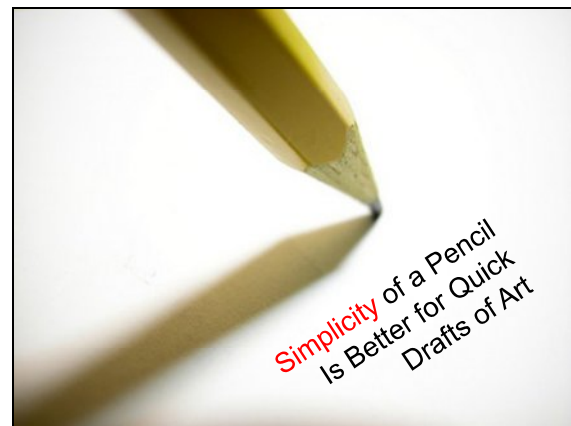
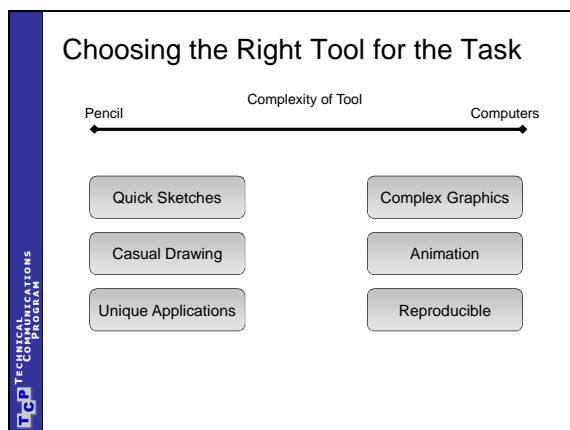
Sketching the Storyboard:

You avoided the temptation of opening PowerPoint long enough to write your content, but now that you have written your speech, surely you can open PowerPoint, right? Wrong. The way PowerPoint is designed influences the way you think about your visuals, and if you go straight to

PowerPoint, you will not go in with an open mind. Instead of thinking about the wide range of visual representations you can use, you will instead start pulling up PowerPoint's default images and templates; for that reason, it is far superior to start with an open canvas.

Pull out a good old-fashioned pen and some paper, and start sketching away your ideas. By starting away from PowerPoint, you ensure open-mindedness, and start thinking of many of the infinite possibilities to express your ideas. Nancy Duarte (2008), the mind that designed the visuals for Al Gore's *An Inconvenient Truth*, recommends sketching out your ideas on Post-it Notes so that way you can easily rearrange your ideas and change the order of your storyboard.

In sketching your visuals, just like you did with your content, you should continue to consider your audience. The audience will influence the level of detail and complexity that you put into your visuals. The below two slides are deliberately designed for different audiences:



The first slide is designed for a more technical audience; it includes more complexities and nuances of information. The second slide is more artistic, and is designed for a general audience; this slide limits its information and makes the main point clearer and more succinct.

As you sketch slides tailored to individual audiences, Richard Mayer's Multimedia Learning Theory should influence how you convey your information.

Multimedia Learning

People tend to learn more when there is both a visual stimulus as well as a verbal stimulus (Mayer, 2001; Mayer and Moreno, 1998; Pavio, 1978). This may be a bit counterintuitive since it would seem that having to process two different channels at once would be more difficult than

processing one, but people tend to learn best when they are simultaneously stimulated visually and with narration. This in and of itself is a justification for using visual aids since it makes your information more readily remembered.

Modality Principle

People tend to remember narration alone better than they remember text alone (Mayer, 2001). This means that presentations are generally a better medium for getting your information across than submitting a written document.

Redundancy Principle

People tend to remember narration and visuals better than they remember narration, visuals, and text (Mayer, 2001; Mayer and Moreno, 1998). This means that you should avoid simply rehashing your presentation in text when you create your visuals; instead, you should have visual representations of what you are saying that significantly limit the amount of text that appears on the visual itself.

Signaling Principle

People tend to learn more when the material is organized with clear outlines and headings (Mayer, 2001). Unfortunately, so many presentations have headings that do not clearly convey the idea on the slide; in past presentations, you may have seen headings such as “Career Objectives” or “Fiscal Year Projections.” These titles are decent signposts that tell members of the audience where they are in the presentation, but such titles do not tell the audience what the main point is or which idea the speaker is attempting to convey. In order to avoid this, when writing headings, determine what your main idea for the slide is, and then convey it with a simple heading.

Signaling does not just take place on individual slides, though; creating clear organizational slides that signal when you transition from idea to idea provides a clear outline of your speech for the audience to see.

Coherence Principle

People tend to learn more when visuals are kept as simple as possible, and extraneous information is *removed* (Mayer, 2001; Mayer and Moreno, 1998). This means that you should avoid making slides overly-complex or nuanced, and instead present your visuals with only as much information is needed to get the point across. If you have a lot of information that you wish

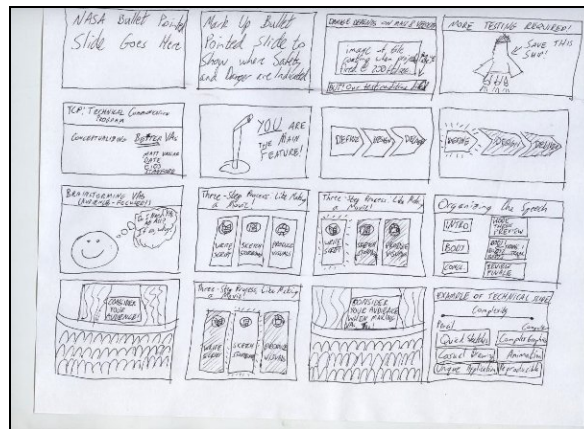
to convey, you can still include the information, but it should be on multiple slides as opposed to being presented all at once, per the *segmentation principle*.

Segmentation Principle

People tend to learn more when information is spread out into manageable segments (Mayer and Moreno, 2003). This means that you should place your information across multiple slides, and avoid trying to communicate too much at once.

Duarte takes this principle a step further and recommends that you should only have one major idea per slide. She also recommends using the wide point of a Sharpie to sketch your ideas on the narrow width of a Post-it Note; that way you will be forced to limit the amount of information you put into your sketch.

If you follow these design principles, you should end up with a very visually-oriented storyboard that looks something like this:

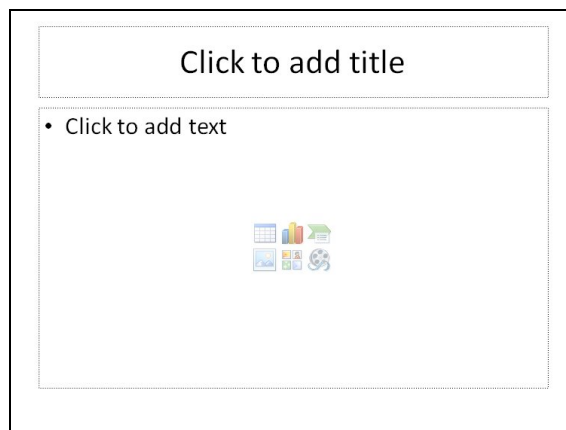


Producing the Visuals

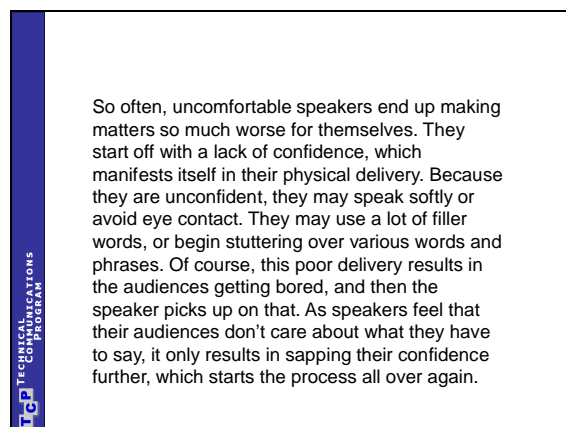
Once you write all the content for your speech and sketch out some ideas for your visuals, then and only then are you ready to open up PowerPoint to begin producing the digital version of your visuals. It is necessary to remove yourself from PowerPoint during the first two steps, though, so that way you will develop fuller content with more creative and impactful visuals.

Designing the Slides:

When you first open PowerPoint, you are greeted with a template that looks something like this:



You may be tempted to acquiesce to PowerPoint's requests; you click to add a title, and then you click to add text. You begin typing out various thoughts, writing out relevant information to your presentation. "This is great!" you think to yourself, "I can just keep typing away my ideas." Before you know it, though, you end up with a slide that looks a lot like this:



You might realize that you got a bit carried away with all that text, and so you reduce it down to a few key bullet points, ending up with a slide that looks something like this:

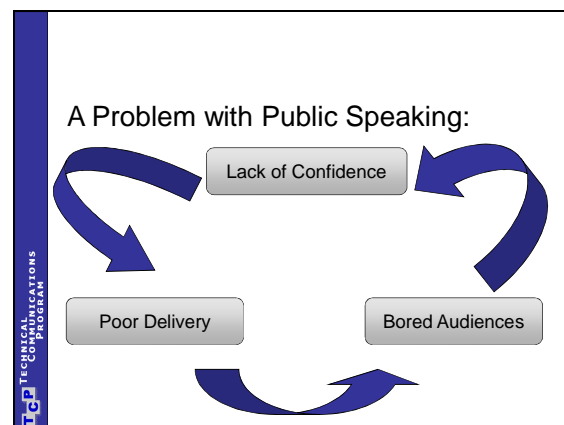
TCP TECHNICAL COMMUNICATIONS PROGRAM

A problem with speaking

- Lack of confidence breeds poor delivery.
- Poor delivery bores audiences.
- Bored audiences sap a speaker's confidence.

While certainly better than the first version, this version still is not as effective as it could be. First, this violates the *multimedia learning principle* (that people learn better when there is a visual image) as well as the *redundancy principle* (that people learn better from narration alone than they do from narration and text). Second, though, the logical relationship between these three points is lost when text alone is used. If you take a moment to read through the three bullet points, you might discover that they describe a cyclical relationship (point 1 leads to point 2, which leads to point 3, which leads back to point 1); with text alone, though, it takes the audience longer to realize this relationship.

Thus, it would be more effective to replace these three bullets with a diagram that shows the relationships among the three points, allowing the audience to pick up on the relationship between the points a lot quicker. This will also make them more likely to remember your points after the speech ends (per the *multimedia learning principle* and the *redundancy principle*). Making a more visual diagram would look something like this:



However you decide to make your visuals, the bottom line is to present the information as simply as possible, per the *coherence principle* (that people learn more from visuals that are presented with extraneous information *removed*). Strive to make it so the audience can pick up on your message as easily as possible. This will help you to “FIND” a better way to design, where you keep your slides as simple as possible with your: ***Formatting, Images, Numbers, and Diagrams.***

Formatting:

In maintaining simplicity within your individual slides, it helps to have a consistent format where titles, capitalization, and fonts are generally the same on each slide (unless you have a deliberate reason to break from your standard format, e.g., to emphasize a difference between two ideas by literally making them different in their formatting). You can create unity among all your slides by placing a company logo or other defining element on every slide (similar to the blue “Technical Communication Program” bar that you see on the left-hand side of many of the slides in this paper). One very simple way to create consistency among your slides is to design a “Master Slide” in PowerPoint (in PowerPoint 2007, click on the “View” tab and then select “Slide Master”); you can create templates for a number of different situations (default, title slides, headers, etc.)

Once you have a “Master Slide,” you can begin designing individual slides. These slides should be easily visible to the audience; in order to do so, you should make sure to use font colors that contrast with your background color. Also make sure that the font size is large enough to be readable by the audience (I generally recommend no smaller than 24-point font). Below demonstrates how text is most readable when the font color contrasts with the background color:

Dark background with light text	Light background with dark text
Dark Background With dark text	Light background With light text

A good test that I recommend for determining if your font sizes and colors are readable is to print out your slides in black and white with nine slides per page (the maximum PowerPoint allows). Hold your printout at arm's distance; if it is large enough for you to read at arm's distance, it should be large enough for the audience to see the projection from a distance away. If the text is readable on the background in black and white, then you did a good job contrasting the background color with the font color, and that, too, should be easy for the audience to read.

As you continue to design individual slides, make sure that your overall format falls into the organizational template of your speech. That is, you should have a title slide, slide(s) for the hook, a preview slide, slides for your body points with transitional slides in between major body points, a review slide, and slide(s) for your finale. Clearly delineating the various parts of your speech will help the audience to understand your overall organization, and know when you are moving from point to point, making the speech more memorable (per the *signaling principle*).

Simplifying the formatting of individual slides as well as the overall format of your entire speech can help the audience to pick up the information on your slide quickly and effectively. This will help you make your presentations as impactful as possible.

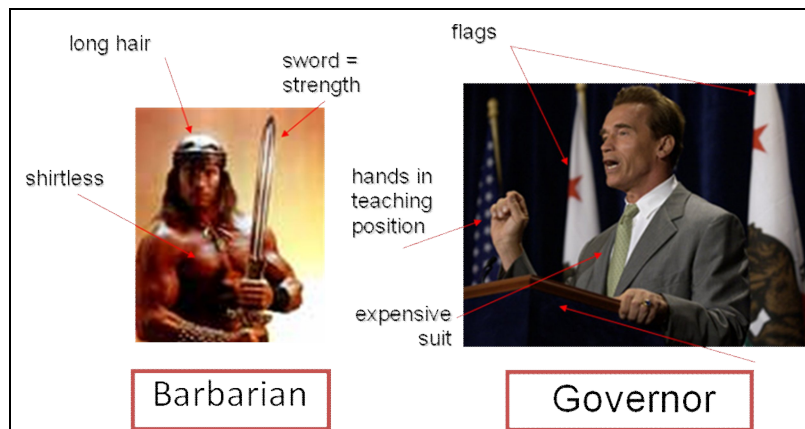
Images:

Images can be tremendously powerful in helping the audience to understand what you are conveying (either logically or emotionally); after all, a picture is worth a thousand words. The problem is that the audience will have no idea which thousand words you are trying to communicate unless you give them a hint. For instance, what might I be trying to convey with the below image?



Perhaps the message I am trying to convey is “Coors Light is the Après-Ski Beverage of Choice.” On the other hand, perhaps I am trying to point out the rising problem of alcoholism in tiny snowmen. The fact of the matter is that it is impossible for the audience to know what the point of this image is unless it has some accompanying label; thus, you should make sure to label your images to help the audience to determine your meaning.

Simple labels to describe the overall message of a picture can be helpful, but smaller labels can help to break down a diagram into its key part. For instance, the below slide points out some differences between Arnold Schwarzenegger the Governor and Arnold Schwarzenegger the Barbarian:



The slide points out a number of differences between the two. The barbarian is shirtless, whereas the governor wears an expensive suit. The barbarian has long hair, whereas the governor has a short professional haircut. Finally, the barbarian’s sword signifies his strength, whereas the governor’s flags, gestures, and line of control all signify strength.

Although the above example of the barbarian and the governor may be a bit silly, certain images need to be broken down into key components to help the audience to understand them better. This may be in a comparison and contrast format (as with the governor and the barbarian), or, as will be covered later in the quarter, it could also be used to break down complex and/or technical processes and machineries into more easily understood parts.

The last thing to consider with images is when and how to use animations. Animations can be effective to illustrate processes, or events that happen in a certain order. Simple builds can also be used to break up more complex slides into smaller, easier-to-digest segments that make it

easier for the audience to understand (per the *segmentation principle*).

It is important, however, to make sure that you do not get carried away with animations. PowerPoint comes with many different builds and animations built into its software, but just because PowerPoint can do it, does not mean you should do it. Avoid the more distracting animations that rob the audience’s attention from you, *the main feature*.

Successful incorporation of images is one of the most important skills to have when designing visual presentations. This helps to (quite literally) illustrate your points quickly and effectively, in a manner most helpful to the audience.

Numbers

Just as it is difficult to deduce the meaning of an image without corresponding text, it is also difficult to deduce the meaning of numbers without corresponding text. For instance, if the following table were displayed showing the number of worms caught by various birds at each hour of the day, what might you think the message was?

	4 AM	5 AM	6 AM	7 AM	8 AM	9 AM	10 AM
Robin	10	9	9	5	3	2	0
Sparrow	7	7	6	4	3	1	1
Pigeon	6	5	5	3	2	0	0
Eagle	3	3	3	2	1	0	0
Ostrich	0	0	2	1	0	0	0
Average	5.2	4.8	5	3	1.8	0.6	0.2

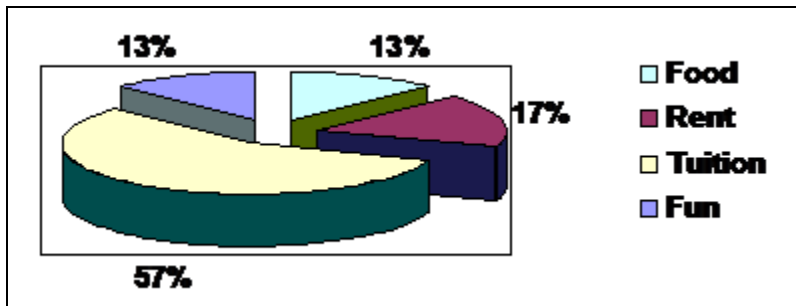
After studying the chart for some time, you might come up with the logical deduction that perhaps I am trying to illustrate how “the early bird catches the worm.” The problem is that this is not what I was trying to demonstrate with this data at all! What I was trying to point out was that the sparrow is the only bird that can catch a worm late in the morning. Without highlighting key information in my chart, though, it makes it basically impossible for the audience to try to divine my message. A much better example of this chart, with my message highlighted, looks like this:

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	4 AM	5 AM	6 AM	7 AM	8 AM	9 AM	10 AM
Robin	10	9	9	5	3	2	0
Sparrow	7	7	6	4	3	1	1
Pigeon	6	5	5	3	2	0	0
Eagle	3	3	3	2	1	0	0
Ostrich	0	0	2	1	0	0	0
Average	5.2	4.8	5	3	1.8	0.6	0.2

Sparrows can catch worms late in the day

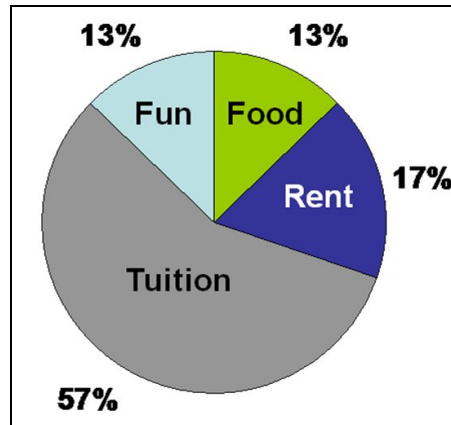
These same principles apply to graphs. First, it is important to remember that a graph should be easily readable. For instance, the below graph on a student's quarterly budget is very difficult to read:



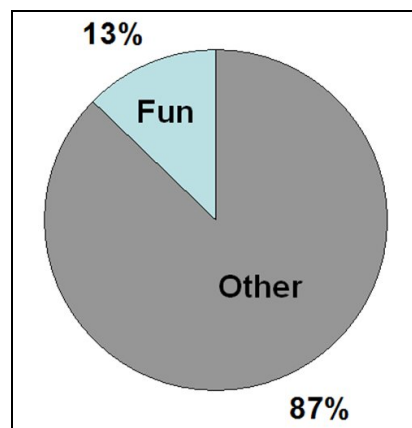
There are a few problems with this graph. First, the legend off to the side makes it so members of the audience have to constantly shift their eyes back and forth just to see what each region of the graph means. Second, some of the colors on the legend are quite similar to one another, making it hard for the audience to determine which color matches with each section of the graph. Finally, the three-dimensional nature of the graph skews the audience's perspective; the slice marked 17% looks as large as the slices marked 13%, and the front of the graph (representing 57%) actually looks as though it takes up far more space than the rest of the graph (this, incidentally, is another example where just because PowerPoint can do this functionality, does not mean that you should use it). All of these problems make it difficult for the audience to read the graph as it was intended, and ultimately make the speaker's message harder for the audience to infer.

A better example is below, where the legend is put directly on the graph, the colors are a bit more distinct, and the graph is made two-dimensional; all of these changes make the graph easier

for the audience to read:



This is certainly better, but even the new graph does not make readily apparent the message that the speaker wants us to take away from it. What if the speaker is trying to tell us that he or she does not have enough money devoted to fun? In that case, we can represent that message a lot more clearly by limiting the amount of information on the graph, and highlighting the amount of money spent on fun compared to everything else:

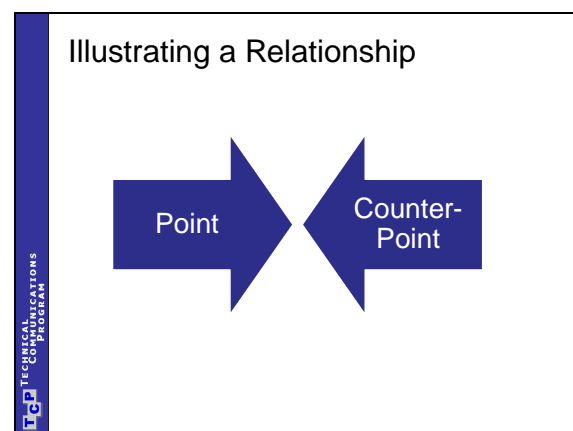
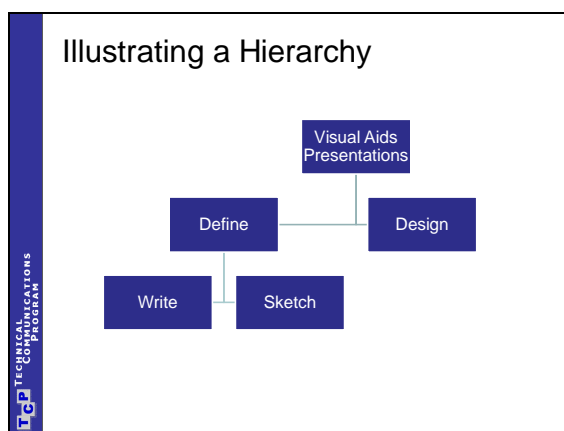
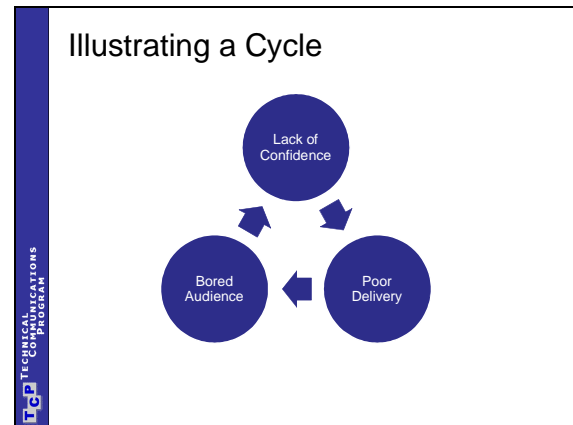
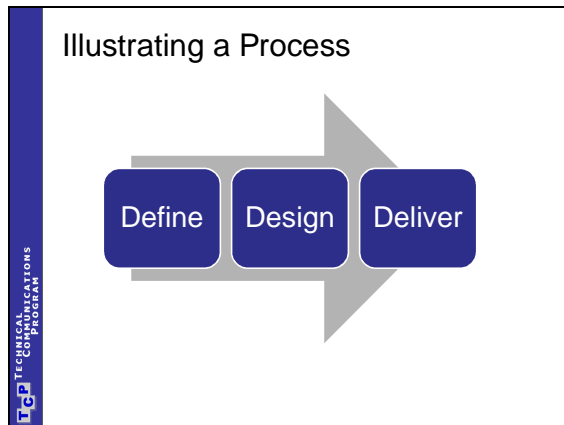


With numbers, it is important first to determine what message you are trying to communicate with your data. Once you have determined your message, then you can create a table or graph that is tailored toward that message. Such a graphic allows the audience to determine your message quickly and also tends to be more memorable to the audience later on, making your message far more impactful.

Diagrams:

At the very beginning of this section, I gave an example of how to simplify text into a diagram with the cycle of how a lack of confidence can lead to a bored audience which makes the speaker even less confident, creating a vicious cycle. When arrows were used to illustrate this process, it makes it much easier for you to quickly pick up the logical relationship among my points, and also makes it more likely that you will remember those points later on. Using diagrams is a very simple way of taking ideas represented in text, and making them more visual.

Below are several examples of diagrams, although there are many more ways to represent information through diagrams; be creative!



Incidentally, all of the above diagrams were created using Microsoft PowerPoint “SmartArt” (in PowerPoint 2007, go to the “Insert” tab and click on “SmartArt”). SmartArt has a number of

different diagrams that can be used to show a variety of logical relationships, including the ones described above.

Once you successfully incorporate good *Formatting, Images, Numbers*, and/or *Diagrams*, you should have your content and visuals fully developed. Now it is time to take the presentation live!

Delivering the Presentation with Visual Aids:

As with every other presentation, your stance, gestures, voice, and eye contact still matter. Making effective use of the delivery techniques covered previously in class will help you to deliver your speech with visual aids.

There are two new things to plan around, though, while delivering with visuals: first, you must work with a computer and, second, you must work with a projector. As important, though, is to have a plan when either the computer or the projector fails and you suddenly have none of the visuals that you spent so much time preparing.

Working with the Computer:

In order to deliver your speech effectively while simultaneously advancing your slides, it is recommended that you use the PASS method; that is, you should *Press, Assess, Step, WHILE Speaking*.

Press the Button: there are numerous ways to advance a slide in PowerPoint. You can press the right arrow, the down arrow, the spacebar, the enter key, or left-click on your mouse. Press one of these buttons and the slide will advance.

Assess the Situation: take a look at the computer screen or projection to make sure that PowerPoint advanced to the slide you intended it to. Sometimes speakers accidentally double-click and advance two slides instead of one. Other times speakers may forget which slide is about to pop up. As you speak, make sure that what you are saying matches the visual content displayed on the projection.

Step (If Needed): Sometimes the computer is distanced from the projection and, in order to place yourself near the projection (so that the audience will view both you and the slide simultaneously), it is necessary to step in the appropriate direction.

WHILE Speaking: Throughout the entire process, you should continue to speak (the word “while” is deliberately placed in all capital letters). Too often, speakers have no clue what slide is coming up, so they bring their entire presentation to a screeching halt while they wait to see which slide pops up. Make sure that you know your presentation well enough that you can speak continuously through your slides as you advance through the PASS method.

One really simple way of always knowing which slide is about to come up is by putting your computer in “Presenter View.” Presenter View makes it so that the audience only sees the current slide on the projection, but you get to see a timeline of all the slides on your own computer screen. To set up Presenter View, go to the “Slide Show” tab in PowerPoint 2007, and click “Set Up Slide Show.” Under the section that says “Multiple Monitors,” click the “Show Presenter View” checkbox.

Working with the Projector:

Now that you have visuals being projected while you are speaking, you need to adjust accordingly so as not to distract from your visuals. This means that you should speak from the edge of the projection so that the audience is not forced to make a decision between watching you or watching your visuals. If you stand too far in front of your visuals, then certain audience members (depending on where they are seated) may not be able to see both, and will have to turn their heads from one to the other, watching only one at a time. Make it so that the audience does not have to choose, and can instead see both you and your visuals simultaneously.

This also means that you should limit your movement when visual aids are present; since the light shines the projection of your visuals, you may not have as much of a range to move since you run the risk of blocking your own visuals from the audience’s views if you walk into the light of the projection.

If, however, you ever want to cut off the visuals momentarily (in order to share a person-to-person moment with the audience, or to get the audience’s attention back on you, *the main feature*), you can always press the “B” key in PowerPoint to black out the screen. (Though less useful, the “W” key can also be used to white out the screen). To go back to your slides, simply strike any key.

One final caution for delivering with visuals is to make sure that your eye contact remains with the audience. So many speakers get distracted by their own visuals, and end up presenting to the projection instead of the audience!

Planning for Technological Failures:

The importance of knowing your presentation well enough that you are not reliant on your slides was discussed above for the reason of making the presentation seamless (and not having to come to a screeching halt every time you switch slides); another reason for knowing your presentation without your visuals, though, is so that you will be able to continue if there are any technological failures along the way. Remember that, no matter what, the show must go on and you should have a plan even if you do not have access to your visuals.

Conclusion:

Very few people have a background in creating effective visual expressions, so this primer should help you in conceptualizing how your visuals can be made more impactful. From ***Defining*** to ***Designing*** to ***Delivering***, you should come up with creative ways to express ideas simply. Start by defining your ideas outside of PowerPoint, move on to designing them in PowerPoint, and then work with your visuals as you deliver.

Although there are over 30 million PowerPoint presentations created daily, you are now in a great position to ensure that yours is one of only very few PowerPoint presentations that is actually noticed.

Acknowledgements:

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