



*Presented June 14<sup>th</sup>, 2009, at the ASEE-ELD 2009 Conference, Austin, TX.*

### **Introduction**

In today's library environment, presentations are a critical means of communication and instruction and they are everywhere, from the classroom to the conference center. Yet the typical presentation is not as effective as it could be.

The typical presentation method sets up obstacles to efficient and effective learning of your presentation content.

More specifically, this method ignores some basic rules about the way our memory system works and how our brain processes and stores information for later retrieval.

This document describes three simple rules that will help you create a more effective presentation, no matter the topic or audience.

Enjoy, and please feel free to contact me if you have questions or would like additional information on a topic.

**BONUS! For practical tips on implementing the Three Rules approach to your next presentation, visit:** <http://presentations4librarians.files.wordpress.com/2009/07/practicalapplicationoftherules2009.pdf>.

Sincerely,

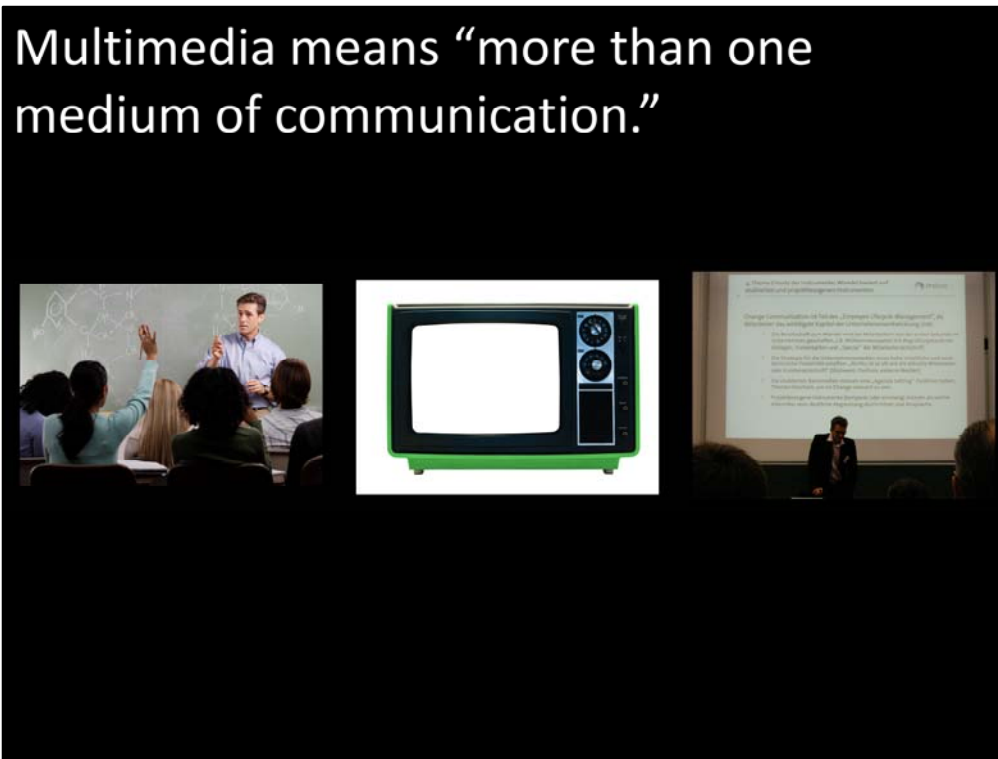
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<http://presentations4librarians.wordpress.com>

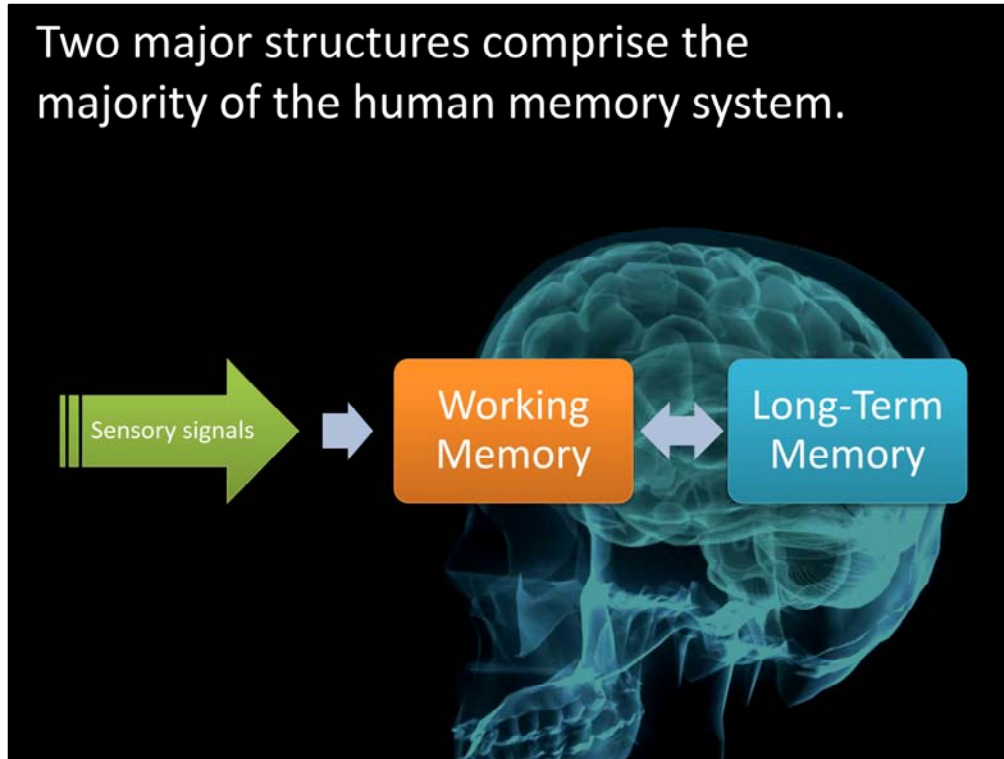
To better understand the three rules, we first need to look at some background info.

1. What is multimedia?
2. How does the human memory system work?
3. What is learning?



A “chalk and talk” classroom lecture, television and a PowerPoint presentation are all examples of multimedia presentations.

In a typical presentation situation, our ears are receiving the spoken words of the presenter and our eyes are focused on the presenter and their visuals.



*Note: There are additional components to the human memory system, but the ones we are generally most concerned with are working memory and long-term memory.*

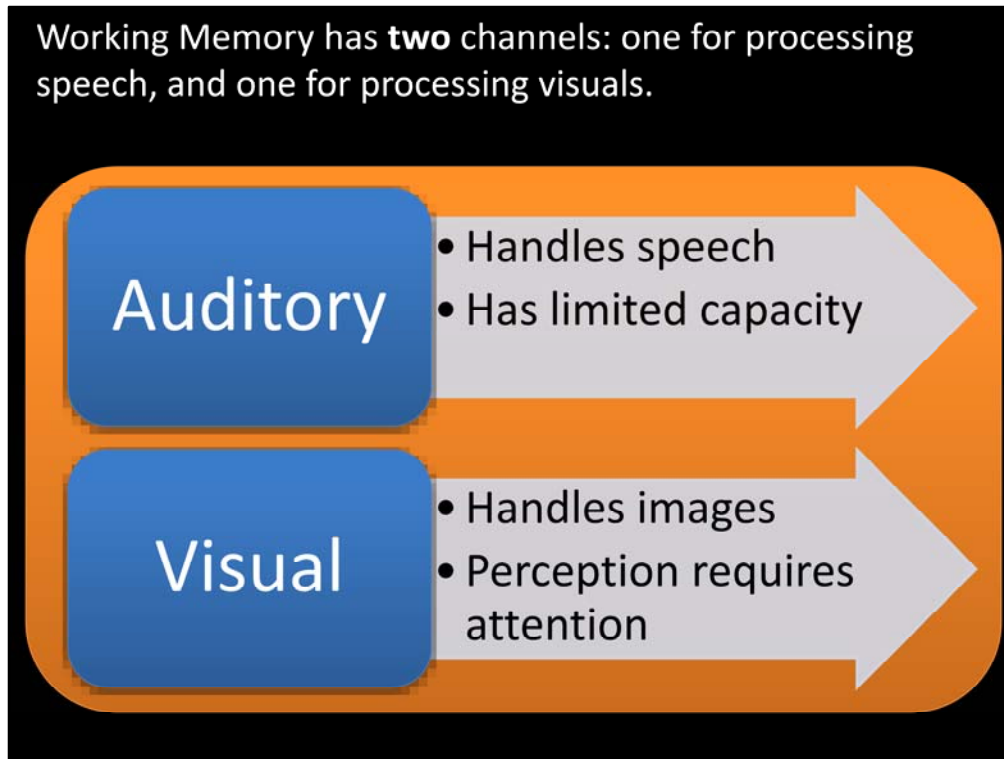
### **Working Memory** (a.k.a. Short-Term Memory)

Working memory is our conscious “workspace,” where we process and manipulate information. It has a limited capacity, meaning it can only hold a few items at a time. It is generally thought to be located primarily in the frontal lobe of the brain.

### **Long-Term Memory**

Long-term memory (LTM) is like our personal database. Information in long-term memory is stored indefinitely and the capacity of LTM is thought to be infinite. Memories are stored in multiple areas of the brain and surprisingly, can be processed by the brain for many years before becoming permanent. (See Medina, John. **Brain Rules**. Pear Press, 2008.

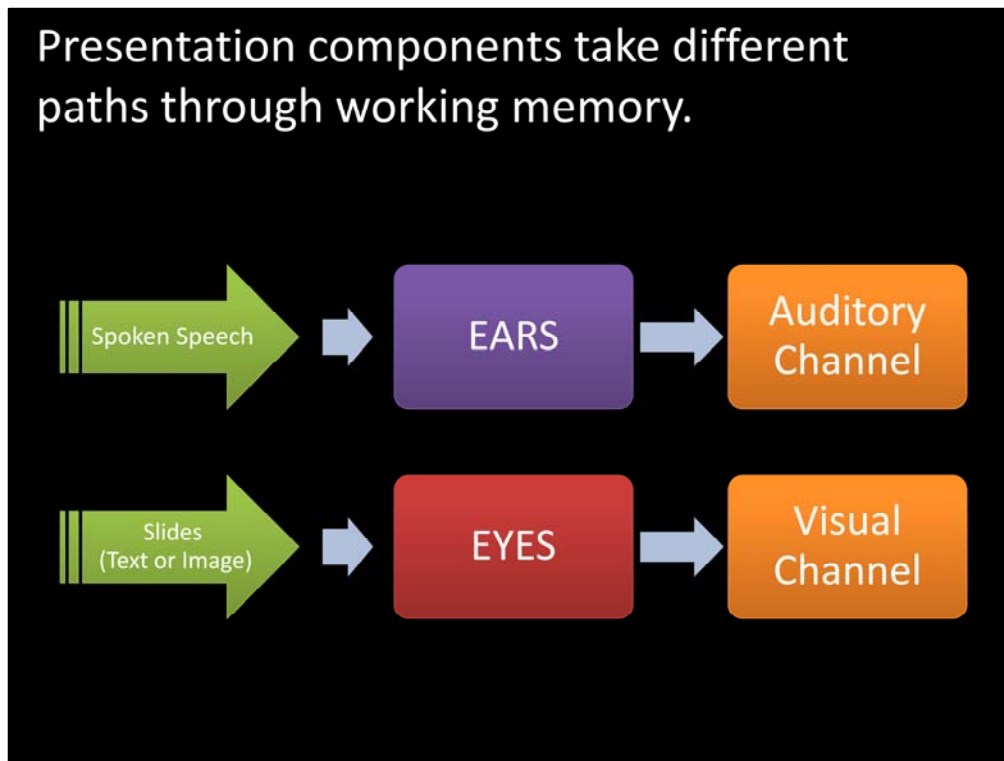
<http://www.brainrules.net/long-term-memory>).



For additional information, see:

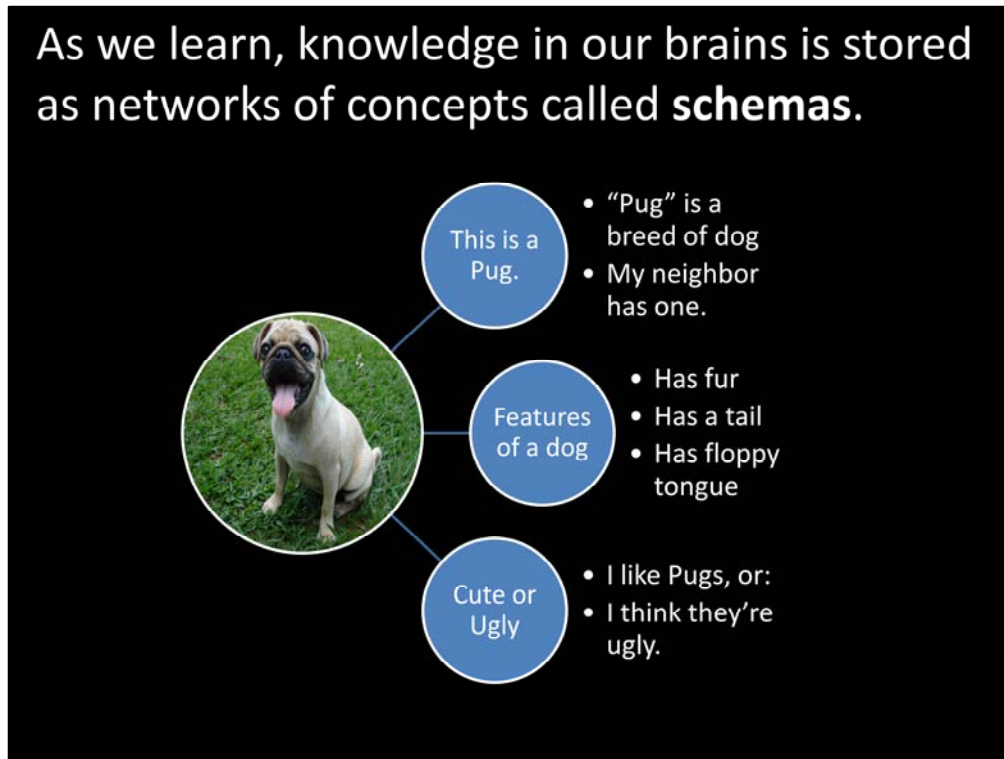
Baddeley, A.D. (1998) **Human Memory: Theory and Practice**, rev. edn. Boston: Allyn & Bacon

Paivio, A. (1986) **Mental Representations: A Dual Coding Approach**. Oxford: Oxford University Press.



Your brain engages in “parallel processing” to process multiple components at once and combine them into a cohesive whole.

As these components are processed, they are combined together into what is known as a “mental representation” or model of the information.



No matter the topic or situation, a presentation is a **learning experience** for the audience. As the audience listens to you and views your visuals, they are processing the information you present and are either creating a new concept network (schema) or are modifying an existing one already present in long-term memory. **This is learning, generally defined as a permanent change in knowledge or behavior.**

Think about the example above. A small child will have a limited schema representing his knowledge about dogs. He may know that a dog has a tail and a floppy tongue, but he will not be aware that dogs come in all shapes and sizes and colors, or that dogs are mammals, etc.

As the child grows and encounters more dogs and learns more about dogs in school or in books, that existing schema will expand to include additional features of the “dog” concept.

As a presenter, you want to deliver a presentation experience that will help the audience construct new schemas (for new topics) or expand/modify existing ones (for topics with which they already have some familiarity).

Fortunately, the following three rules will help you create the environment for efficient and effective schema construction (learning) by the audience.



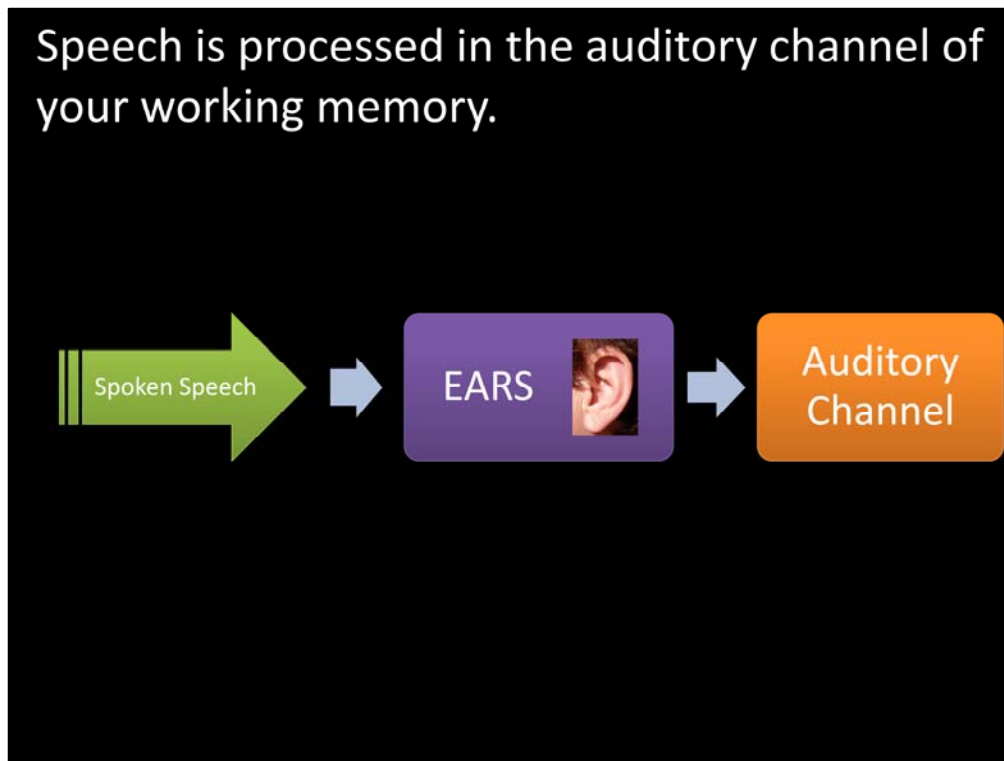
**Three Rules for Great Presentations:**

1. Say the words.
2. Show the pictures.
3. Text is for take-away.



**RULE 1: SAY THE WORDS**

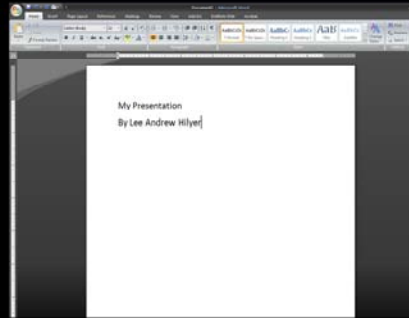
Verbal information is a dominant mode of communication. We humans like to talk to one another.



And in our short-term or “working memory,” there is an area specifically for processing spoken words. It’s called the auditory channel and it can only process a limited amount of information at any one time.

*Credit: This slide based on Olivia Mitchell’s “4 multimedia principles that will improve your slides” (blog.slideshare.net).*

When creating a presentation, start with pen and paper or your word processor. Do NOT use PowerPoint at the beginning of your process.

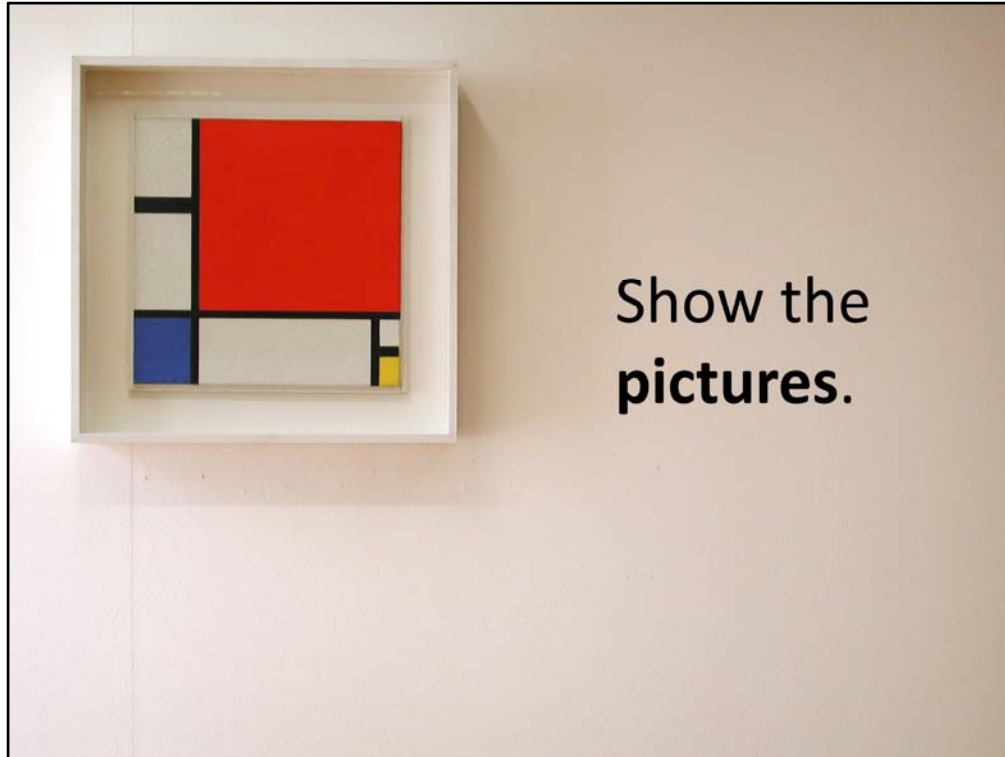


Since a presentation is primarily oral and verbal information is the dominant mode of human communication, it's important to think carefully about what you want to say about your topic.

The common error most presenters make is to begin the preparation process within PowerPoint. Instead of starting in PowerPoint, **start with pen and paper or your word processor and write out a short report on your topic.**

This helps you organize your thoughts more clearly than PowerPoint allows. Plus, writing a report is often more familiar and comfortable for you than making a PowerPoint presentation.

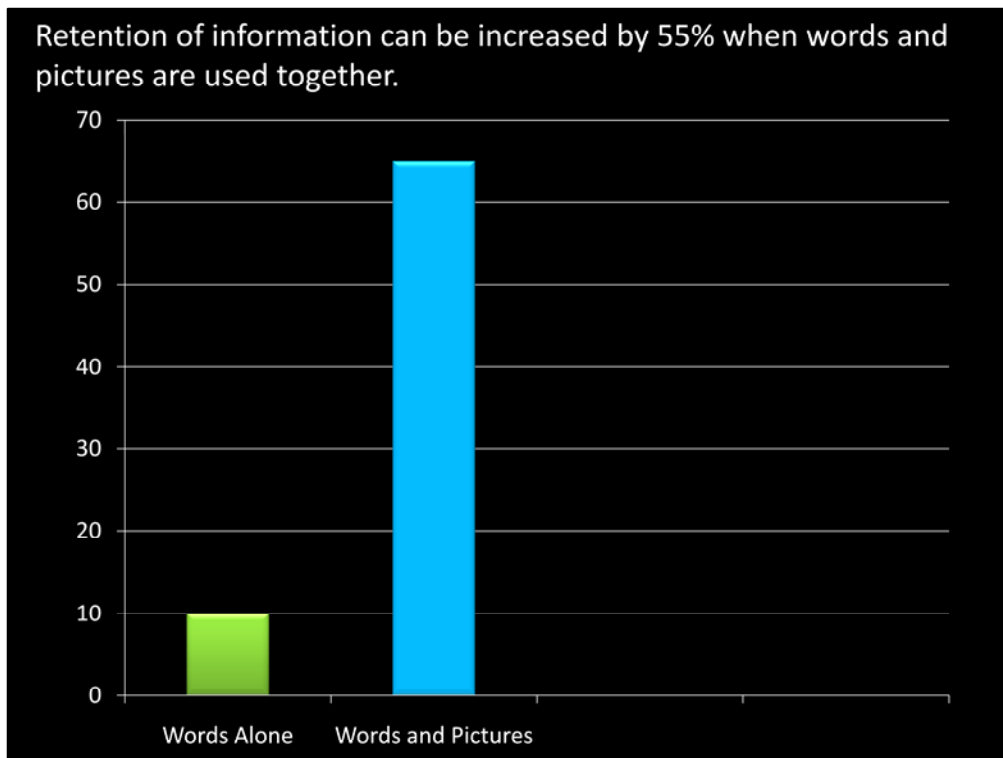
From this document you will select the specific content you plan to talk about during your live presentation (your **script**, if you will).



## **RULE 2: SHOW THE PICTURES**

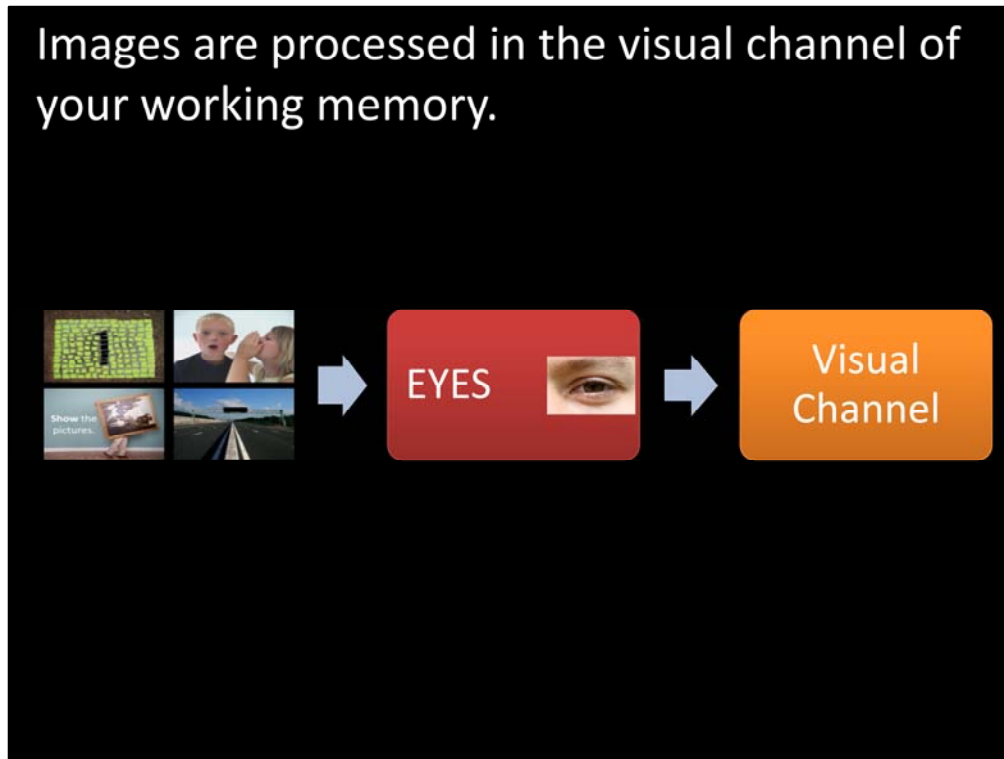
While verbal information is dominant, we actually remember pictures better than words. The fancy name for this is the “picture superiority effect.”

You can observe this phenomenon at the Information Desk when people say: “ I used a book last week. I don’t remember the title but the book had a picture of a dog on the cover.”



***Even better*** recall of information can be achieved when pictures are used together with spoken words. This is known as the “multimedia principle.”

Hear a piece of information and three days later you’ll remember about 10%. Add a picture to that and you’ll remember about 65%, a whopping 55% increase!

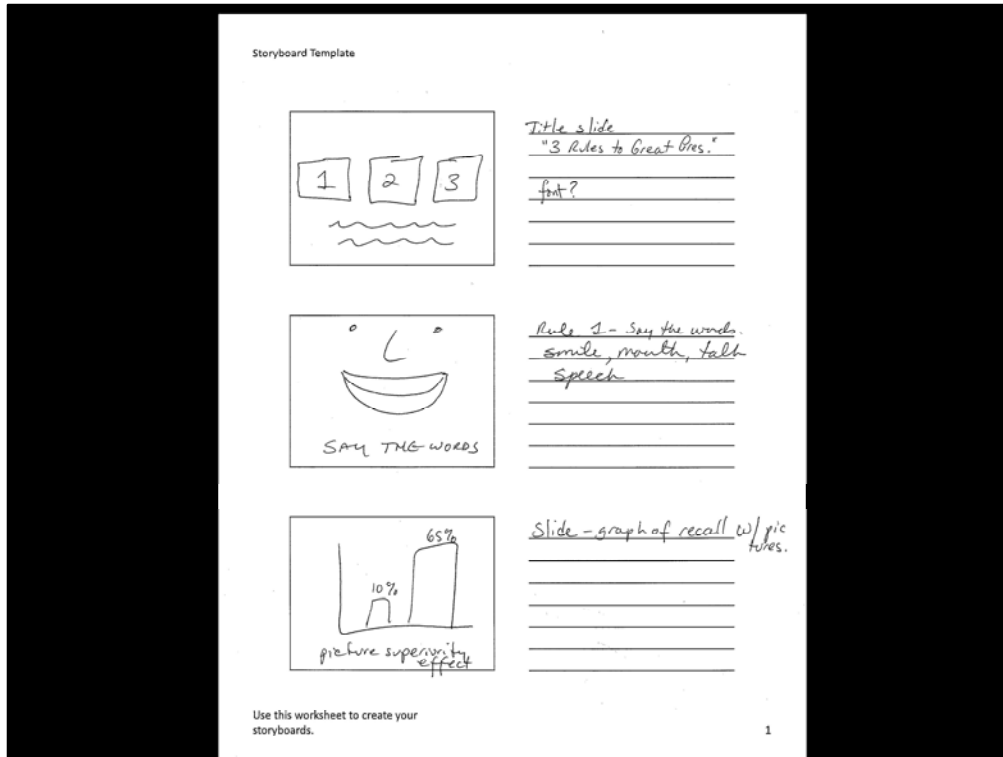


Like the auditory channel, working memory has a second channel devoted specifically to processing visual information. Like the auditory channel, the visual channel can only handle a limited amount of information at any one time. While our eyes are constantly receiving visual information, our brains select specific things in our visual field to pay attention to.

For maximum effect, your presentation visuals should be relevant, high-quality images with minimal text. Photographs are preferred, though there are situations where line drawings or clip art are ok – **just don't mix them in the same presentation.**

Websites such as the Flickr Creative Commons (<http://www.flickr.com/creativecommons/>) and Stock XChange (<http://www.sxc.hu>) are fantastic sources for free images you can use. Just be sure to check the terms of the license to make sure you can use them in a presentation.

*Credit: This slide based on Olivia Mitchell's "4 multimedia principles that will improve your slides" (blog.slideshare.net).*



Remember that when you combine words and relevant pictures together, your audience better comprehends and retains the information presented.

Selecting relevant and appropriate visuals requires advance planning and preparation. You can use an easy technique borrowed from moviemaking known as **storyboarding**.

Sit down with your written report and identify key areas where pictures (or graphs or charts) will illustrate or reinforce the points you're trying to make. The example above is a storyboard I created when preparing for this presentation.

Once you've storyboarded your visuals, you can then search for images in clip art and stock photo collections that match your visual ideas. If you cannot find an appropriate image, consider creating one yourself, either by taking a photograph or using a drawing program such as Adobe InDesign.

Also, it's a good idea to check in with colleagues about your visuals—what makes sense to you may be confusing to someone else.

While you can use index cards or blank paper to storyboard, you can also easily create a storyboard form using PowerPoint:

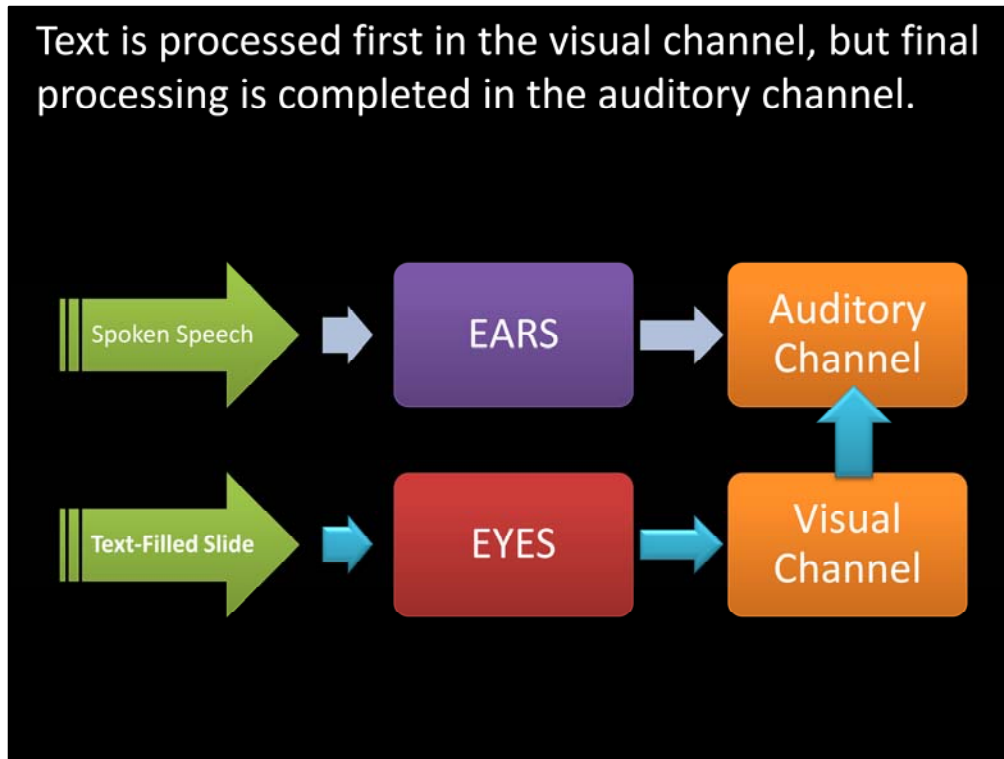
1. Create a new presentation.
2. Add three blank slides (CTRL+M, 3x).
3. Print out the 3-slide handout version.

You can find a PDF version of the storyboard form at <http://presentations4librarians.wordpress.com>.



**RULE 3: TEXT IS FOR TAKE-AWAY**

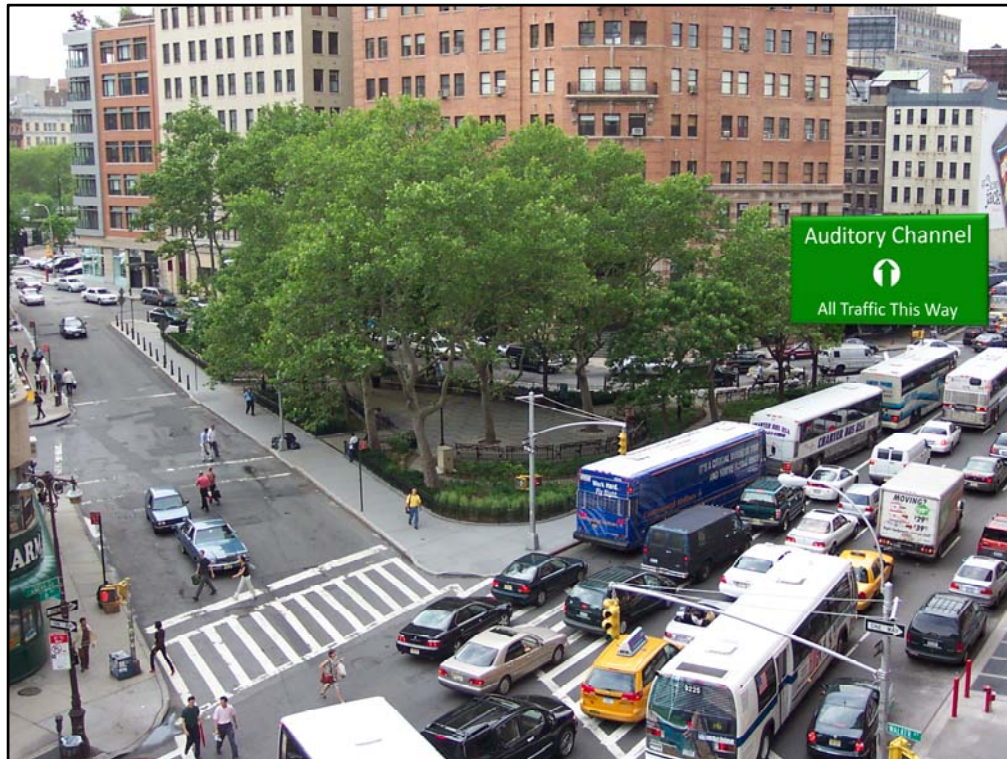
**This is THE most important rule and the one that will make the most impact on your presentations.**



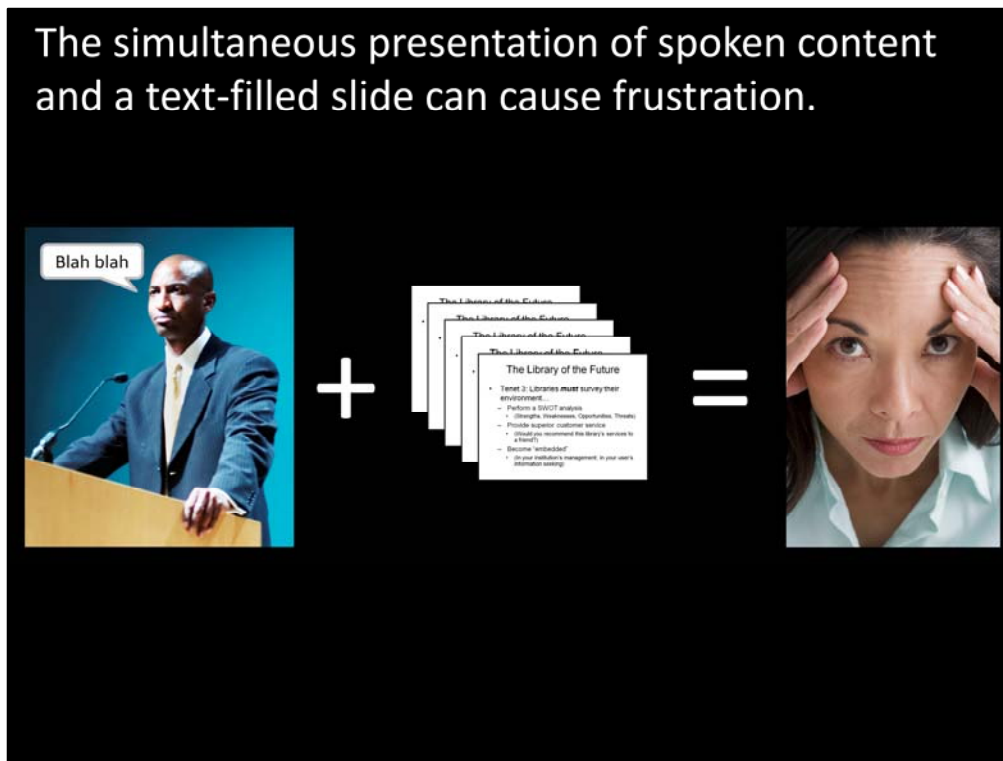
If we were using a highway analogy, text would be a memory “road hog,” taking over both channels of our working memory for processing.

Text is first processed in the visual channel, but because of the relationship between written and spoken language, the auditory channel takes over and completes the processing (follow the blue arrows above).

*Credit: This slide based on Olivia Mitchell’s “4 multimedia principles that will improve your slides” (blog.slideshare.net).*



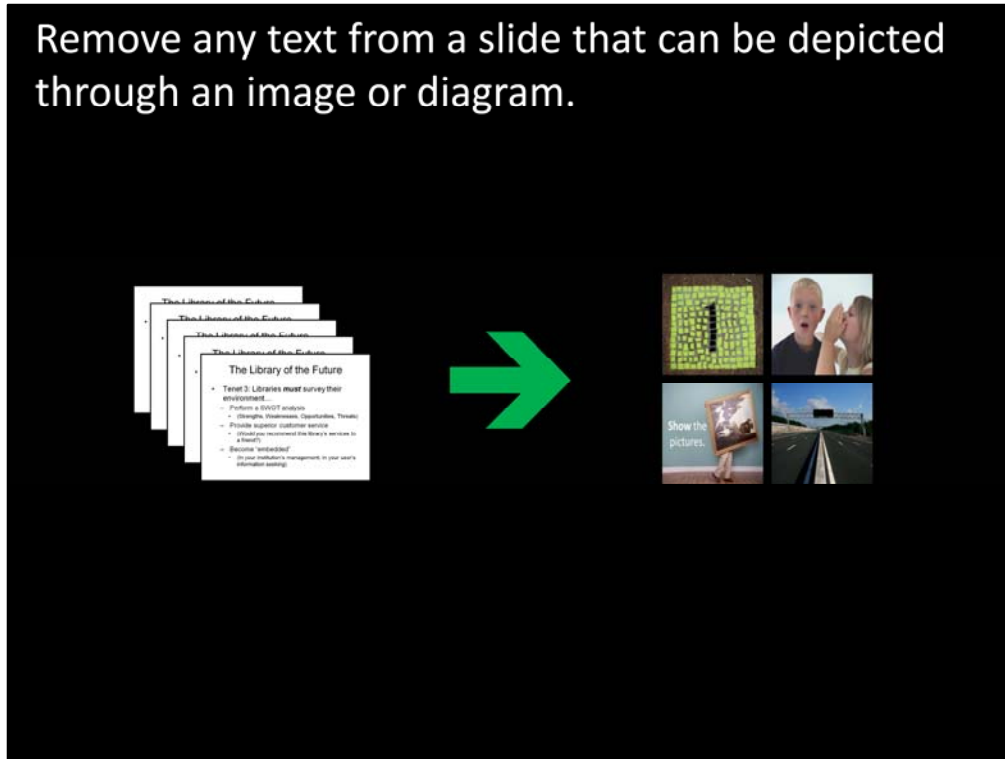
So in a typical presentation situation, where a text-filled slide is visible and a speaker is talking at the same time, the auditory channel of every person in the audience is being overloaded.



Here's another way of looking at it:

Speaker + Text-Filled Slides = Frustration

Since there is too much information coming in at one time to the auditory channel, overload occurs and audience members encounter **unnecessary** difficulty in comprehending your content.



So how can we remedy the situation?

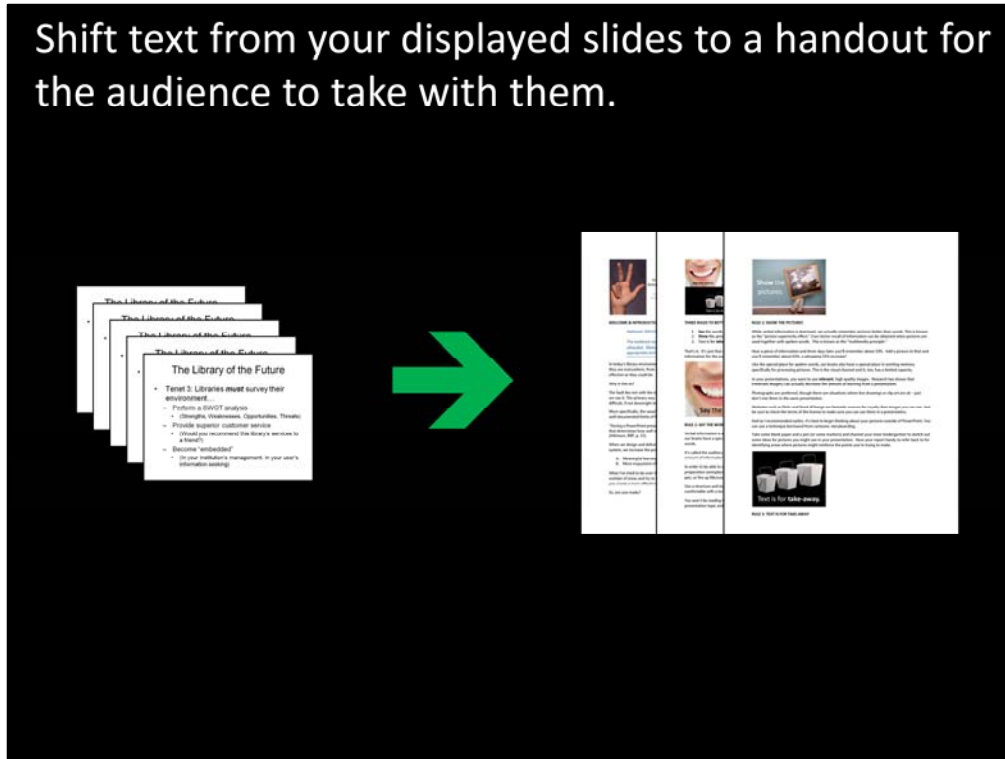
First, remember Rule #1: Say the Words. Remove any text from a slide that can be incorporated into your spoken remarks.

Another way to reduce the load on the auditory channel and to take advantage of the picture superiority effect is to use pictures **instead** of text on your slides.

If you don't have a good image for a particular point in your presentation, resist the temptation to "fill the space" with a textual slide.

If you will be talking for an extended period without accompanying visuals, use the **B** key (or **W** key) during a slideshow to black out (or whiten out) the screen. This will ensure that the focus remains on you while you're speaking.

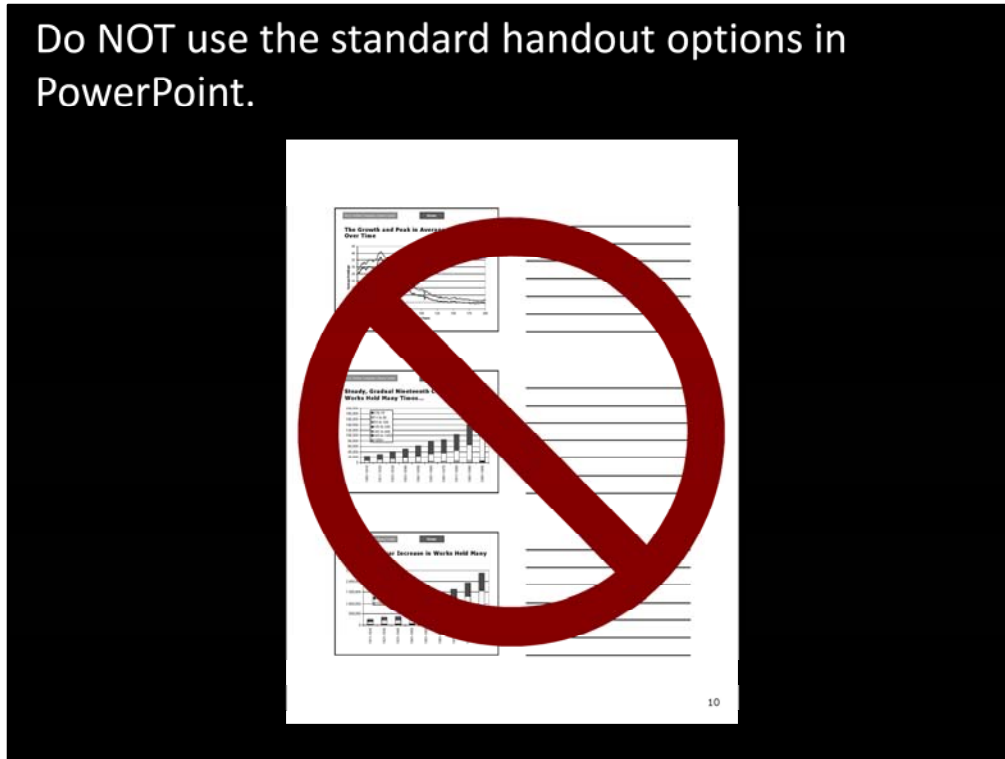
*For more slide show commands in PowerPoint, start a slide show, then press F1 for a full list of slide show keyboard shortcuts.*



Yet another way to balance the load between channels is to shift text from your slides to a handout.

The handout also gives you a chance to include all of the extra material you have on your topic that won't make it into your live presentation.

Good presenters acknowledge that they cannot give the audience every detail on a topic in the short time they have with the audience (usually 30 minutes – 1 hour). Instead, during the live presentation, they focus on the 3-5 key points they want to share with the audience, then provide additional detail and resources in the handouts so that audience members can pursue the topic further at their own pace.



But don't just print out your slides (please).

As the presenter, **YOU** provide the verbal information that makes the slides meaningful.

Without that essential verbal information, your slides are subject to misinterpretation or confusion.

For handouts, you should create a separate document that contains a summary of the presentation as well as additional information and resources on the topic.

Be creative! A handout doesn't necessarily have to be paper—it could be a website or blog you created, a CD or DVD, or a kit of materials for audience members to take with them.

See <http://presentations4librarians.wordpress.com/2008/06/17/information-kits-aka-handouts/> and <http://presentations4librarians.wordpress.com/2008/10/27/handouts-on-a-flash-drive/> for creative handout ideas.



## REVIEW

So, let's review what we've talked about so far today:

### Three Rules for Great Presentations:

1. Say the words.
2. Show the pictures.
3. Text is for take-away.

Success with these rules can be achieved using any combination of resources (speaker and chalkboard, speaker and slides, audio/video, etc.).

They reduce memory overload by making efficient use of the two channels in our working memory to help us better comprehend and retain presentation content.

Try them out with your own presentation and you'll see the difference for yourself. If it seems too daunting to convert all of your presentation over at once, try it with just one or two slides, then gradually change other slides as you get more comfortable.

For more resources and downloadable goodies, visit:  
<http://presentations4librarians.wordpress.com/workshops/eld2009>

Your password is:  
**threeRules**

Thank you for the opportunity to share this information with you. I hope that you find it useful and I would love to get your feedback and hear about your success in using the Three Rules Method.

Contact me anytime at: [lhilyer@sbcglobal.net](mailto:lhilyer@sbcglobal.net) or leave a comment on the blog at: <http://presentations4librarians.wordpress.com>.

*One final note:*

Look carefully at the slides on pages 2-7, 10-11, 13-14, 17, and 19-22. These slides use what is known as the “assertion-evidence” slide design. This design approach is ideal for presenting research data and I highly recommend reviewing the short introduction to the design, which you can find at:

<http://www.writing.engr.psu.edu/slides.html>

Peace out!

Lee

# Practical Ways to Incorporate the Three Rules into Your Own Presentations



## Rule 1: Say The Words.

### *Write a Script*

To best organize your thoughts about your presentation topic, start with pen and paper or a word processor, and write out a **report** on your topic. Don't start in PowerPoint – it is not a writing tool.

Pretend you've been asked to submit a paper rather than deliver a presentation. Write about your topic and revise as needed until you've got a solid document to work with. You will select your talking points from this report.

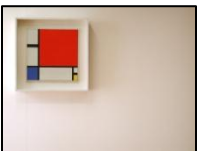
### *Select (and Stick to) 3-5 Key Points*

A presentation usually lasts 30-45 minutes. Avoid overloading the audience with too much information by identifying your key points (from your report) and only presenting on those key points. Try to leave time to review the key points with the audience at the end of your presentation.

### *Practice and Determine Length of Presentation*

You need to practice to get comfortable with the flow and pace of your presentation, and to determine how long your presentation is. Better presenters practice more than once and you should pay close attention to the total length of your spoken remarks.

Try to pace yourself so that you have 5-10 minutes remaining for the audience to ask questions. If this would mean you would need to rush through your presentation, you have too much content and need to remove some material from your live presentation. See Rule 3 below for more information.



## Rule 2: Show The Pictures

### *Start With a Storyboard*

Use a storyboarding technique to brainstorm possible image ideas for your slides. Try out several approaches to a concept you want to illustrate. Check in with colleagues to determine "universality" or appropriateness of the imagery you've chosen.

### *Select Relevant, High-Quality Images*

Once you're satisfied with your pen and paper ideas, search for relevant, high-quality photographs or other visuals. Avoid using clip art, or at least try not to mix photographs and clip art in the same presentation.

Here are some sources for good images:

- Flickr Creative Commons (<http://www.flickr.com/creativecommons/>) Free
- Stock XChange (<http://www.sxc.hu/>) Free (sometimes with license restrictions)
- Fotolia (<http://www.fotolia.com/>) \$-\$\$



## Rule 3: Text is For Take-Away

### *Avoid Using Text-Filled Slides*

As we have discussed, *displayed text* is partially processed in the auditory channel. A presenter's *spoken speech* is also processed in the auditory channel. The auditory channel has limited capacity and is easily overloaded by too much information coming in at once. Shifting the text from your slides to your spoken words helps reduce the load on the auditory channel.

### *Use Images Instead of Text*

Another way to reduce the load on the auditory channel and to take advantage of the picture superiority effect is to use pictures *instead* of text on your slides. If you don't have a good image for a particular point in your presentation, resist the temptation to "fill the space" with a textual slide.

### *Shift Text from Slides to a Handout*

Yet another way to balance the load between channels is to shift text from your slides to a handout. The handout also gives you a chance to include all of the extra material you have on your topic that won't make it into your live presentation.

Good presenters acknowledge that they cannot give the audience every detail on a topic in the short time they have with the audience (usually 30 minutes – 1 hour). Instead, during the live presentation, they focus on the 3-5 key points they want to share with the audience, then provide additional detail and resources in the handouts so that audience members can pursue the topic further at their own pace.

### *Spreadsheets Are Better on Paper*

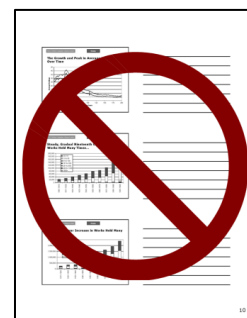
If you have detailed spreadsheets to share with the audience, print copies and distribute at the appropriate time during your live presentation. Do not attempt to shoehorn a complex spreadsheet into a PowerPoint slide.

Instead, use the **B** key to darken the slide show, direct the audience's attention to the spreadsheet on paper, guide them through it as needed, then press the **B** key again to resume the show.

### *Avoid the Standard Handout Option*

Avoid using the common, three-slide-with-notes format. Often, important details are obscured or unreadable in the smaller slide images, and only the most diligent of note-takers can utilize the handouts after the presentation is over.

Instead, repurpose your initial report, or create a separate document to use as a handout. Use the handout as an opportunity to provide your audience with additional resources about your topic, such as a bibliography or a list of websites.



For more information on the Three Rules, visit <http://presentations4librarians.wordpress.com> and search for "three rules."