The Art of Presenting Research

Purposeful Design

A. Questions to Consider in Early Preparation

Audience: Who is my audience and what are they expecting? What do they want and need to know? Who is the main decision maker?

Logistics: How much time do I have to prepare? How much time do I have to present? How many audience members do I expect? Am I part of a team? Where will the presentation take place?

Purpose: What is my main message (~conclusion)? Is my message neutral, positive or negative? What do I want the audience to take away with them? What do I need to be successful?

B. Contents and Organization

For most professional audiences in the Anglo-American world, your approach will be appropriate if you

- Make your main message blazingly clear and refer to it throughout your talk.
- Choose your content and approach based on what the audience needs/wants and NOT what you know. Be selective in your content.
- Pay particular attention to your introduction and conclusion; your audience is most attentive in these sections. Your introduction should clearly indicate your key message as well as the scope of your presentation. Conclude your presentation by summarizing your key points and putting your message into some greater context. Never conclude with “That’s all!”
- Keep your main points clear and unencumbered by distracting detail.

C. Effective Design of Visual Aids

The purpose of visual aids is to help the audience understand the content of your presentation and remember your key message. The aids should support your message. Your goal should not be (exclusively) to entertain the audience and display your prowess with presentation software. In other words, “Provide a high signal to noise ratio.” General conventions for success follow.

1. Use clear, consistent and correct text
   - Keep it simple, readable and immediately comprehensible.
   - Honor hierarchy in text size: larger titles; smaller content lines of text
   - Use sans serif fonts and no more than two font types (e.g., Arial and Garamond) per slide.
   - Try to use a minimum of 20-point font size (sometimes hard in graphics).
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- Avoid all capital letters; use italics and bold fonts purposefully
- Design aids from the point of view of the audience members farthest away from the speaker.
- Check for accurate parallelism, grammar and spelling.

2. Use color purposefully to emphasize content and minimize distraction
   - Avoid random use of color; limit maximum three
   - Avoid ornate backgrounds.
   - Keep in mind that contrast improves readability.
   - Keep in mind that room lighting affects contrast: for a dark room, use light font on a dark background; for a well-lit room, use dark font on a light background.

3. Use graphics purposefully to emphasize content
   - Avoid clip-art clutter.
   - Use recurring graphics (e.g., picture, logo or menu bar) for impact.
   - Manage data: use graphs; avoid tables; have handout, publication or separate backup slides for discussion if necessary.

4. Fight against the temptation to use all the tools that presentation technology allows
   - Minimize the complications, dead time and embarrassment that loose cables, slow downloading, poor audio/video quality, faulty equipment, bad Internet connection, etc. can cause.
   - Minimize special effects, e.g., sound and animation.
   - Always have backup handouts.

5. Preview your slides as a projected slide show to catch any features that seem acceptable on the small computer screen but are unacceptable projected onto a full-size presentation screen. Font size and color contrast are just two of many features that can change dramatically between the small and large screens!
Effective Design of Visual Aids

Practice with appropriate visual design: All the types of information provided below in Column A could be presented effectively as graphics. Draw a line between each item in Column A and one or more appropriate graphic forms in Column B.

<table>
<thead>
<tr>
<th>A. Types of information</th>
<th>B. Type of Graphic</th>
</tr>
</thead>
<tbody>
<tr>
<td>Current cost/unit of regular gas in 3 countries</td>
<td>Photo</td>
</tr>
<tr>
<td>Average salaries of MIT grads in all engineering fields</td>
<td>Flowchart</td>
</tr>
<tr>
<td>Average interest rate changes from 2008 through 2016</td>
<td>Bar graph</td>
</tr>
<tr>
<td>Lithium battery</td>
<td>Pie chart</td>
</tr>
<tr>
<td>House for sublet</td>
<td>Line graph</td>
</tr>
<tr>
<td>Process to earn an MIT Ph.D. in chemistry</td>
<td>Cutaway graph</td>
</tr>
<tr>
<td>Distribution of Tesla cars in the 50 states</td>
<td>Diagram</td>
</tr>
<tr>
<td>Changing CO₂ and ozone levels in the atmosphere</td>
<td>Table</td>
</tr>
<tr>
<td></td>
<td>Histogram</td>
</tr>
<tr>
<td></td>
<td>Animation</td>
</tr>
<tr>
<td>Other?</td>
<td>Other?</td>
</tr>
</tbody>
</table>


Visual Representation of Information: Language

A well-designed slide simply serves as wallpaper unless a speaker uses it effectively in support of the key message. Some or all of the five steps provided in the table below are typically used in presenting visual materials. Some examples of language use for each step are provided.

<table>
<thead>
<tr>
<th>1. Introduce the slide</th>
<th>2. Discuss the structure</th>
<th>3. Explain terms</th>
<th>4. Point out key features</th>
<th>5. Discuss overall trends</th>
</tr>
</thead>
<tbody>
<tr>
<td>This slide/graph shows</td>
<td>In this graph, the x-axis is</td>
<td>Here, A denotes</td>
<td>In the first column, we can see</td>
<td>In general, these data show</td>
</tr>
<tr>
<td>This chart represents</td>
<td>As you can see, this device has three parts</td>
<td>Here, the red line shows</td>
<td>Note the steep incline</td>
<td>This photo clearly demonstrates</td>
</tr>
<tr>
<td>I think this X will help you understand</td>
<td>At the top of this diagram</td>
<td>All X are represented by</td>
<td>This sharp curve indicates</td>
<td>I'm showing this image to give a general sense of</td>
</tr>
<tr>
<td>If you examine this X, you will see</td>
<td>The slide is divided into two halves</td>
<td>I’ve indicated X by</td>
<td>This X here is of particular interest</td>
<td></td>
</tr>
<tr>
<td>As you can see in this X</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
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Powerful Delivery

A. To connect with your audience,

- Respect them. Look at them and speak to them. Be conversational. Move around and gesture. If you simply stand in one place and read your slides or notes, the connection between you and your audience is non-existent.
- Look enthusiastic about your subject. If you don’t seem interested, your audience will not be interested.
- Speak with confidence and make no excuses. Never undercut your message, yourself, or your reason for presenting. Don't apologize. Make your best effort, and the audience will appreciate it.
- Time yourself. Prepare for a talk that is 25% shorter than the time allowed. Rehearse your presentation well beforehand; leave time for questions. However, don't over rehearse. If you practice the talk too many times, it may sound as if you've memorized it, which is culturally inappropriate and dangerous in interactive contexts.

B. To use your visuals effectively,

- Handle the aid as little as possible. Avoid using the remote control or mouse as a crutch. Display the aid only when you are ready to discuss it. Remove the aid when you are through discussing it. Turn off projection equipment when not in use.
- Compensate for your audience’s divided attention. Increase volume and clear articulation of speech. Continue to talk while handling aids. Avoid excessive slides (more than 1/minute).
- Position yourself carefully. Always face and talk to the audience, not the visual aids.
- Stand or move at the sides of the screen, not between the audience and the aid/screen.
- Emphasize details by pointing at the screen, preferably with your hand and using verbal cues. Pointers, especially laser pointers, tend to be overused and distracting.

C. Know the ten tips for nervous speakers

Most speakers experience a low level of anxiety before a presentation. You can make this feeling work for you instead of against you by doing the following:

1. Know exactly what your listeners expect from you. Ask the person who requested the presentation or a prospective audience member what they want.

2. If possible, familiarize yourself in advance with the room set-up.
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3. Rehearse your presentation at least twice. The first time, focus on familiarizing yourself with your material and checking your timing. The second time, record yourself for playback, or present to a friend/colleague, and time the presentation. Ask for feedback.


5. Avoid excessive caffeine, which also exacerbates anxiety.

6. Chat with audience members before the presentation.

7. During the presentation, speak directly to individuals for several seconds; choose individuals throughout the room.

8. Use your gestures to enhance communication, not distract from it. Be aware of nervous mannerisms (e.g., playing with a pen, stroking your beard, smoothing back your hair) and practice suppressing them.

9. Speak slowly and distinctly in a low register. A rapid rate at a high pitch indicates nervousness.

10. Prepare good notes in outline form and practice using them appropriately for an extemporaneous presentation.

Tips for effective language choice

1. Use the active voice.

   E.g., We initiated this program to improve communication along the supply chain.

   Not: This program was initiated to improve communication along the supply chain.

2. Use personal language.

   E.g., Our goal here is . . .

   Not: The goal here is . . .

3. Use tactical language.

   E.g., We’re going to examine . . .

   Not: I’m going to talk about . . .
4. Use short words and short sentences.

   E.g., We avoided problems in the following way. First, .... Next, ....

   Not: We circumvented problems by engineering symbiotic solutions ....

5. Use explicit transitions.

   E.g., First, we interviewed the participants. Let me describe ....

6. Use word pictures.

   E.g., I think of cell phone movies as film haiku.

7. Use unbiased language.

   E.g., To predict growth, we used a simple equation.

   Not: To predict growth, we used an equation so easy even your mother (secretary, etc.) could solve it.

E. Use common speech structure cues

Skilled speakers use patterns that help the listener understand the content of their presentations. There are various rhetorical devices that a speaker can use to signal progression from one part of the talk to the next. Used appropriately, these signals make a presentation clear, move the listeners smoothly along, and provide coherence.

A critical listener is careful to recognize these signals and is then prepared for the organizational pattern that the speaker has indicated. For example, the comment “I am going to argue that Google’s Chinese policy is acceptable for a number of reasons.” alerts the audience to listen for a series of distinct arguments. On the other hand, the comment “I'd like us to look at how Google’s Chinese policy differs from its German policy.” indicates a comparative approach.

Some common speech structure cues are listed below.

Introduction cues

I’d like to start/begin by ...
Let’s begin with ...
As an introduction, ...
I will first describe X and then I can explain ...
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Organization cues

• Generalization/Specific

Generally speaking, . . .
On the whole, . . .
By and large, . . .
In general, . . .
Overall, . . .
For the most part, . . .

• Chronological Order

To begin with, . . .
In the beginning, . . .
First, 2nd . . .
Then . . .
Next, . . .
Following this, . . .
Afterwards, . . .
Subsequently, . . .
Before . . .
Ultimately, . . .
Finally, . . .

• Explicit Movement

X, then, is the first . . .; let’s move on to another Y/the next . . .
Now I’d like to consider/turn to/examine . . .
What are the advantages/results/etc. of this approach?

Comparison/Contrast

Similarly, . . .
In contrast, . . .
Likewise, . . .
In like fashion,. . .
In comparison to this,. . .
On the one hand/on the other hand, . . .

• Cause/Effect

As a result, . . .
Thus, . . .
If this occurs, then . . .
Because of this,. . .
The upshot of this is . . .
Therefore,. . .
The outcome of this . . .
Consequently,. . .

Main idea cues

Let me stress that . . .
Let me repeat . . .
This is a major factor . . .
Why was this so important?
I’d like to emphasize . . .
The principal point is . . .
The main idea is . . .
The main idea is . . .
The remarkable thing is . . .
It is significant that . . .
Most important to remember is . . .
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Example or detail cues

For one thing... for another... For example,...
Moreover,... In the case of...
For instance,... Also,...
A few of these are... In such a case,...
Furthermore,... In addition,...

Past reference cues

As I/John/Lydia said at the start of this presentation,...
As I mentioned earlier,...
In my introduction, I said...
You will remember the example of X I gave you earlier.

Future reference cues

I'll return to this in a few minutes.
I'll come back to this later.
I'll develop this in the next part of the presentation.

Digression cues

Incidentally,... But before we get to that,...
That reminds me... That makes me think of...
By the way,... Of course,...
But first,... First let me...

Amendment cues

I just remembered... I forgot to mention...
I almost forgot... I just realized...

Summary & conclusion cues

In conclusion,... Finally,...
To summarize,... To conclude,...
In summary,... I'd like to leave you with this final X
Productive Interactions

As students and professionals, you are expected to work with others productively to accomplish tasks. The contexts may vary—academic study groups, group projects for a particular class, committee work, professional project teams, or high-stakes work meetings. In effective groups, members reach their goals and are satisfied with their experience. They recognize the contributions of all members and share a sense of accomplishment.

In some of these contexts, you can be assertive and take steps to increase your chances of working effectively together. Successful groups establish ground rules, have a facilitator, communicate frequently and openly and have strategies to avoid, or deal with, common group problems.

A. Learn strategies for effective team presentations

The key to a successful team presentation is to ensure that it is organized, unified and coherent. Keep in mind the following six guidelines when planning.

1. Organize by content area. As a team, organize your total presentation into sections based on logical content areas, not on number of team members. Then decide on the order in which the areas will be presented. After the agenda is organized, decide who will cover which area. One speaker may cover two content areas or two speakers may divide up one area. Match personalities with content area. One team member should introduce and preview the entire presentation. The goal is to present a coherent whole with the content as the focus.

2. Provide graceful content transitions. Conclude your area with a section summary and a content link to the next section. Use the following speaker's name when linking to the next section.

3. Use visual aids consistently. Use the same technology, software, color scheme, font size, and layout throughout. Be sure each of you introduces your visual aids with statements that make clear your motivation for using them.

4. Rehearse as a group. Meet and practice your complete team presentation, introducing and concluding, using the exact transitions, and explaining your visuals as if “it’s the real thing.”

5. Answer questions consistently. When planning the presentation, decide on a question-and-answer format. If you decide to handle questions at the end, choose a facilitator to direct questions and decide whether you will sit or stand to answer questions.
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6. Be a team player. When you are listening to other team members present their content areas, remember that you are still in the spotlight. Listen attentively and use listening body language to show your interest. If you indicate that you are distracted or bored with what your team members are saying, how can you expect others to listen actively?

(Strategies above are adapted from Mary Munter's *Guide to Managerial Communication*, 1999. © Prentice Hall. All rights reserved. This content is excluded from our Creative Commons license. For more information, see https://ocw.mit.edu/help/faq-fair-use/)

B. Follow guidelines for successful Q & A sessions

Question and answer sessions are useful for three reasons. First, listeners will be more attentive if they feel they have a chance to be involved. The sessions can also provide you with feedback on your subject. In addition, you can judge from the questions and comments how well you have communicated your information. You and your audience can benefit a great deal from the Q & A session if you

1. Let your listeners know in advance how you would like to handle questions. Do you want them to ask questions as you speak? Would you prefer that they save their questions and comments for the end of the presentation?

2. Set a time limit for the question and answer session in order to keep a lively pace and to limit long debates. As the time limit draws near, let the audience know by using an expression like "We have time for one more question."

3. Remember to acknowledge and reward participants; check for satisfaction.

4. Ask for clarification if you do not understand a question.

5. Answer each question as directly, but as completely, as you can.

6. Always remain calm and polite, even if your questioner is not. If necessary, suggest that the time limit precludes further discussion of an antagonistic question. Suggest that you meet to discuss the contentious point after the presentation is over.

7. Do not feel that you have to appear to know everything. Feel free to use one of these gambits if you do not know the answer:

   * I'm afraid that I can't answer your question.  
   * Perhaps someone else can answer that.  
   * I'll check and get back to you with that info.

   * I really can't say.  
   * Frankly, I don't know.  
   * It's impossible to say.
Finding the Right Words: Essential Gambits for Q & A

(Adapted from materials created by Jane Dunphy and Dr. Lori Breslow for the MIT management course 15.279.)

Initiating Q & A

I welcome your questions and comments
We now have X minutes for discussion

Hesitation

Well, um . . .
Let's see.
Let me think.
How should I put it?
That's a good question.
I'll have to think about that.

Clarification: Others

Sorry, but I don't see what you mean.
Could you be more specific?
Could you explain that in more detail?
Do you mean . . . ?
What do you mean by . . . ?
If I understand you correctly, . . . .

Clarification: Self

What I mean is . . . /What I meant was . . .
Let me put it/say it another way.
What I'm saying is . . .
What I'm trying to say is . . .
In other words, . . .
I'm sorry, I didn't mean to say that.

Interruptions

Pardon/excuse me, but . . .
Sorry/Excuse me for interrupting, but . . . .
May I ask a question?
May I add something?
I'd like to comment on that.
I'd like to say something here.
Could I just jump in here?

Refusing Interruptions

Just let me finish my point; I'll get back to you.
I'd like to finish what I was saying.
Could I just finish my point?

Resuming After Allowing Interruptions

In any case, . . .
One last point, . . .
To return to/get back to X, . . .
Anyway, . . .
Where was I?
21G.221 Team Presentation: Check List

**Strategy**
Is your strategy appropriate for your goal, audience & context?
Is your key message (i.e., thesis or conclusion) near the start?
What is your key message?

**Structure**
Is your structure appropriate?
How will your audience follow easily from one part of the presentation to the next? What transitions will you use to help the audience navigate?
Does your Introduction include a clear signal of intent/agenda?
Does your structure compensate for the “attention dip” common with Anglo-American audiences?
Will you include a clear and graceful signal and bring closure to your presentation?

**Content**
Is your level of detail appropriate for your audience, purpose and time constraint?
Does the content support your key message?
Do you take into account--and counter--any strong opposition to your key message?

**Delivery**
How will you ensure that your delivery is sincere and confident?
How will you demonstrate interest in your topic and in your audience’s needs/interests?

**Visual Aids**
Do your visual aids enhance your presentation and meet the needs of different types of learners (visual, textual and audio)?
Do they include key terms?
Do they follow the principles of good design?
How will you use them purposefully with verbal and nonverbal reference?
**Q & A**

Where will you provide an explicit directive to the audience about when you would like to handle questions?

How will you demonstrate respect and strategy in handling questions?

**Teamwork**

How will the individual members work as a team?

How will you gracefully choreograph the transition between speakers?
Selected Resources for Professional Communications


