As you may have noticed in earlier chapters, an oral presentation is often called a talk. We realize this term is simplistic and usually serves as a verb, but people often ask you if you are giving a talk. They are asking if you are speaking in front of a group about your work.

If you have chosen to give a talk, you will need to prepare a formal presentation that includes a visual component, and you will use some type of software. Before we begin, we will admit that several books and websites offer useful information on how to create a presentation; however, one of the main goals of this book is to put everything you need in one place. We generally use PowerPoint, so we focus on that software first, but you can follow the same rules we offer here and use alternative presentation formats. After we cover PowerPoint presentations, we will offer step-by-step instructions on using a free program called Prezi as well as Keynote for Mac users.

**Oral-Presentation Format**

Getting your thoughts onto presentation software can happen in several ways. For example, you can

- read through your paper and highlight (or bold or underline) key points,
- summarize the main points of each paper section (e.g., introduction, method),
• type your thoughts directly onto the slides, knowing you will fine-tune them after you have a first draft, or
• use some combination of the above or another way we have not considered.

The message here is to get your work from paper format to presentation format. It is always easier to edit a presentation than to stare at a blank page, so get a first draft done as quickly as possible. The background should be white, the fonts should be left at the default setting, and no pictures should be in your presentation. Stylish perks are great, but if you play with those before you have a first draft, you might end up wasting a lot of time to avoid writing the substance of the presentation.

In general, we suggest the following percentage of space spent on each section of your talk.

<table>
<thead>
<tr>
<th>Title slide/orientation</th>
<th>2%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Introduction</td>
<td>20%</td>
</tr>
<tr>
<td>Method</td>
<td>25%</td>
</tr>
<tr>
<td>Results</td>
<td>30%</td>
</tr>
<tr>
<td>Discussion</td>
<td>20%</td>
</tr>
<tr>
<td>Wrap-up slides</td>
<td>3%</td>
</tr>
</tbody>
</table>

Of course the percentages offered above are merely suggestions. If you have never given a talk before, sometimes it helps to have concrete advice. An alternative to this layout is to combine your results and discussion sections. You might present a result or group of results that make sense together, then you can go ahead and speculate why you might have found the outcome(s).

Another deviation from the table above is spending more time on the introduction section. For example, you might be conducting research in a specialized area that requires more explanation in the introduction. Or your talk might summarize a literature review rather than an empirical study. Without a method or results section, you would instead describe your topic and literature review in detail.

Creating a PowerPoint Presentation: Step-by-Step Instructions

Presentation software offers you slides to project onto a white screen or blank wall. You write words on the slides or use other items of visual interest. Of course, if you have adequate computer speakers at a conference, you can even use sound, but audio is not always reliable.
Adding Text

When you open PowerPoint, the software offers you a Title Slide. Put your title, name, affiliation (school), and perhaps the date as well as the name of the conference. We provide examples based on one of our presentations.

Next, click New Slide at the top of your screen. The program will give you standard slide options, and you can do most things with the Title and Content slide. However, feel free to use other slide formats as needed.
After your Title Slide, the remaining slides are usually Title and Content slides as circled in the previous screenshot.

Refer to the table at the beginning of this chapter for approximate space percentages for each part of your talk. If you are presenting a literature review, divide the talk into meaningful sections based on your paper headings. At this stage in your career, you should type words onto the slides. We know that sounds obvious, but let us explain.

Presentation software was originally designed for a business setting and allowed people to present their work to large audiences. For example, an advertising company might display market research and ad ideas to a group of people to persuade them. In a business setting, it makes sense to offer a lot of information during a presentation. Teachers quickly realized the power of addressing large audiences with technology was far advanced beyond transparencies and overhead projectors. Presentation software is sleek, modern, and allows constant and convenient changes that transparent sheets of paper on an overhead projector do not.

People thought presentation software and the digital age would revolutionize teaching. In some ways it has. But teachers have learned a great deal about tweaking technology to fit the needs of their unique audiences. We now know that busy slides are difficult for students to process, especially since students often take notes during class, dividing their attention between word-laden slides and their own notebooks. To add more chaos to the mix, students have to listen to an instructor lecture, too! Teachers learned a few truths about projection software: (1) Slides should not be too busy, and (2) no one multitasks well.

The revelation that projection software must be used differently in teaching versus business started a wave of changes in the classroom that are still happening today. Based on a lot of excellent research on teaching and learning, we know a good bit about what to do and what not to do as people who want to give away information. You will benefit from that knowledge.

We start with amount of content. Perhaps you have seen presentations that included slides packed with many words. You probably felt overwhelmed by the amount of content as soon as the slide appeared. So here is our first piece of advice: Do not overcrowd a slide with words. Use just enough words to remind you of what to say. The better you get at presentations, the fewer words you will need on the slide. And remember, you are not allowed to read anyway, so why bother projecting entire paragraphs? Let us examine what you should type. The top of the slide has room for a subheading. You already have your title slide, so now maybe you want to use a heading such as Introduction. Then add brief bullet points under the main slide heading.
If you want to add a subpoint under a bullet, click Enter and Tab to further indent. If you later decide you did not want to indent, go to the top of the screen and click the button identified below.

Students usually ask how many slides they should have. That is a tough question to answer because it depends on speed of talking and other aspects of your presentation style. We tend to speak quickly, so we use more slides than most people, with about 15 to 20 slides for a 12 to 13 minute talk. We can get through that many slides in the time allotted. But if you are a slow talker, you are likely to get through fewer slides in the same amount of time. As you practice
your presentation, you can get a feel for how many slides you need to stay within the allotted time but not finish too early.

**Formatting Your Presentation**

When all of your slides have information on them, you can begin to format the slides. It is time for the fun part. You get to play with colors, styles, fonts, and other visual-interest options. Notice that we say visual and not audio. When teachers first started using presentation software, they heavily used the stock sounds that come with PowerPoint. During lecture, students heard squealing brakes, honking horns, applause, and sometimes even breaking glass throughout presentations. Oh, it was terrible! You can only imagine how distracting that was. Every time a new slide was presented, a sound played. Even with all of our knowledge of PowerPoint in teaching, we still hear awful sound effects at conferences and cringe. Our advice? Save the audio for something important, like showing a video clip that clearly demonstrates a tough concept.

Let us begin formatting with decisions about how your slides will change from one to the next. Yes, you get to use some cool transitions, if you would like. But be careful here too; do not set new slides to come in by spinning or zooming. We have heard audience members complain of nausea at the sight of twirling slides. Either set no transitions at all, or set a simple and quick transition such as Cut. If you choose a transition for a slide, you must highlight the slide first. If you want all slides to transition in the same way, left click on the first slide, then Shift + left click on the last slide. Remember to stick with a simple transition. More exciting slide changes are annoying and disorienting. And even a brief lag time when waiting for a slide to change becomes painful after a few slides. Below we have clicked Transitions, then Cut.
If you do choose a transition, notice the little star that appears on the left side of each slide in the left bar.

Just as you do not want to distract, bore, or heaven forbid, annoy your viewers with odd slide transitions, you do not want your individual bullet points to flip around as they come on the screen or crawl onto the screen like slugs. If you feel the need to choose a simple way for bullets to enter the screen, click the Animation tab at the top of the screen. In our example, we might highlight the second slide and choose which bullets we want to appear separately by choosing Appear. Highlight words in the bullets to appear individually, usually when you click the mouse during your presentation.
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If you click Appear as your option (which is a good choice), you will notice a small number 1 shows up on the left side of each chosen bullet point, as you see in the slide below.

Unfortunately, if you do nothing else, the bullets will all appear on your screen at the same time, so there would be really no point to setting a transition. Speakers usually want to have bullets appear one at a time so they control the pacing of points to be made and focus the audience on one point at a time. With all the information up on the slide, some audience members read ahead and, frankly, do not pay attention to what you are saying. On the top right side of the screen, beside Start, click the down arrow and choose On Click. This option will bring the bullet points in one at a time as you click the mouse during your talk.
Now you have the content, the transition from one slide to the next, and the bullets within each slide all set for your presentation. As you now sit back and look at your presentation, notice the boring white background. Black words on a white background certainly focus the reader’s attention on your message, and the contrast is high, making the presentation highly readable. But wow, that style is no style at all. We suggest at least using one of the simpler styles and adding some color. Click the Design tab at the top of your screen to see options. The example below is Concourse.

Clicking Concourse (in this example) applies the design to all slides in your presentation; no need to highlight all of the slides in the left bar.
As you gain experience with presentation software and public speaking, you will learn subtleties such as building slides by repeating them and highlighting different parts to focus your audience. In the example below, we repeated slide 2, changed bullets to grey other than the one part we want people to focus on, which we bolded. To create the slideshow view below, we clicked on the icon at the bottom, right of the screen (circled below). Finally, we enlarged the slides by moving the size option to the right (also circled on the bottom right side of the screen).

Adding Nontext Materials

Now let us get really crazy and suggest inserting a figure or two (or more) into your presentation. If you have a results section, you should insert a graph, if relevant (see Chapter 5). Or you might choose to insert a picture. An example would be showing a piece of equipment from the lab or a stimulus that you used in your study. We will use a random .jpg file from our collection (see next page).
To insert this picture, we will continue with the same slideshow we were creating. Insert a New Slide. PowerPoint will give you another slide with the same layout you have been using, and this layout is fine. In fact, most of the layouts have the same six icons (see the center of the next screen) that allow you to insert pictures, charts, and so on. In this case, we click on the picture icon as seen below.
Insert the picture from the correct location when your computer directory opens. When the picture appears on your slide, resize it by clicking and pulling the borders with your mouse.

You also can move the entire picture around on the side and play with formatting options at the top of your computer screen. Finally, add a title at the top of the slide if you want a title, and insert text boxes (see Chapter 4 for how to insert text boxes) on the slide as needed.

We admit that an easier way to insert images is to copy the image from its original location, right click somewhere on your PowerPoint slide, and click Paste when the options box opens. Done.
This simpler approach also works well to insert tables and graphs. Yes, icons to insert tables and graphs are located on the slide, but we merely copy a graph we want to use and paste it on the slide. For an example using one of the graphs from Chapter 5, see below.

Figures make your presentation more interesting, but they must be relevant. Pictures of you and your friends on spring break are not likely to be relevant. If they are, by all means use them! Just be sure the figures tie to your talk. Do not be concerned that the pictures are necessary to understand your presentation; they might just provide visual interest. As long as the visual interest does not cause people to mentally wander from your talk, use the image. A final caution: Do not overdo it with too many figures. You still should follow the rule of keeping the presentation simple and clear. Also remember you have to discuss the figure, which carries a time cost. Because the figure and graph we added above have nothing to do with the presentation, we will delete them now by right clicking on each slide and choosing Cut on the menu that opens.
Another fun option we use when teaching classes is to add links, such as a web address for a YouTube video. Inserting internet links is easy. Type or copy a link into a slide, and test it out by beginning the slideshow on that slide. Click the link. If you have a reliable internet connection, the link works automatically. As informative as these links can be for a presentation, we do not suggest using this feature at a conference where connection may be unavailable, lost in the middle of a presentation, or just slow. For an in-class presentation or where you know you have a reliable internet connection, using links is not a problem. At a conference, you could consider placing the video clip on your computer and bringing your computer to use for your presentation. Bring cords and connectors too!
Get Ready, Set, Start the Show

When you are ready to start the slideshow, click on the first slide, then click the icon on the bottom right of the screen that looks like a pull-down projection screen (circled below).

Recall that earlier we said teachers have learned to adjust presentation software to meet the needs of their audiences. But we address more than one type of audience. Teachers work with students, and the goal is to teach new information to be tested later. A second type of audience is found at conferences. When we offer a presentation, we focus on the audience, which requires us to adjust our presentation and our style. When the audience is our students, we prepare PowerPoint slides with a lot of visual interest, links to YouTube, and very few words. In fact, we often try to use no words at all. Relevant pictures can replace words, and pictures remind the presenter what needs to be covered. Students are not left floundering as they try to listen to the instructor, read slides, and take notes from the slides. After all, multitasking is a myth. All we can really do is serial tasking, and the best we can hope for is quickly changing from one task to another. Constantly changing our cognitive focus impairs learning. So as teachers, we stick with visual interest and engaging students’ attention.

However, when we present at a conference, we know our audience is different. We know these are our peers, and they have a foundation of knowledge similar to our own. We also know audience members will not be tested later. They do not need to feverishly take notes to prepare for an assessment. They want to sit back and learn about something new or think about an old idea in a new way. And because audience members are already motivated to listen and watch, we do not spend as much effort to engage them as we would with students.
who perhaps are taking the course because it is a requirement. At conferences, PowerPoint slides have more words, fewer pictures, and almost no audio (unless the audio is crucial to the topic). We rarely rely on an internet connection, and given the time constraints, we usually cannot include demonstrations or activities to maintain audience interest.

As you can see, different audiences call for different approaches. And both of these teaching approaches are a bit different from the business approaches that started this revolution. But where does that leave you? You fall in the middle. You are presenting in class or to a conference audience, so you can assume some basic knowledge of your topic. Use words, but remember that words might become a burden if your goal later is to teach the material to people who have little or no background. And recognize that visual interest on your PowerPoint slides might make the presentation more interesting to you.