



# Why PowerPoint?

**Chapter 1:** Supporting All Aspects of Learning

**Chapter 2:** Creating Your First Presentation

**Chapter 3:** Multimedia and Learning with PowerPoint

**Chapter 4:** Understanding Best Practices

**P**art I introduces you to the world of PowerPoint for teachers. We explain why PowerPoint can be so useful to assist you in the teaching process and enumerate some of the ways you can use it. We offer a tutorial on PowerPoint while also guiding you through the process of creating a presentation to support a lesson on the water cycle. Then we delve into using multimedia (audio and video) with PowerPoint. Finally, we discuss best practices for using PowerPoint to aid (rather than hinder) the educational process.



# Supporting All Aspects of Learning

**M**icrosoft Office PowerPoint is a versatile and easy-to-use tool that can support learning in its many phases. As a teacher, you can add PowerPoint to your arsenal of educational technologies and enhance the classroom experience in many ways.

This chapter explains how you can use PowerPoint to support, reinforce, and enhance teaching and learning through reviews, games, quizzes, and other activities created in the software. It also explains how and where you can use PowerPoint to create interactive projects. You will find the detailed instructions in the following chapters. They're not hard at all!

## **POWERPOINT FOR ALL THE WAYS YOU TEACH**

Incorporating PowerPoint in your teaching will make your teaching more effective and fun. PowerPoint is an incredibly flexible and versatile tool, but a lot of its potential is not immediately apparent. Not all teachers realize how exciting and visually appealing PowerPoint projects can be. They may know little or nothing about the interactivity that PowerPoint can add to their presentations. The following are some important points you may need to know.

## **PowerPoint and the Constructivist Approach**

Do you want to teach effectively? Do you want your students to appreciate your computer skills? Do you want them to be actively involved in learning through exciting and fun activities? Of course you do.

PowerPoint is the answer. You may have heard, read, and implemented what is called the *constructivist approach* to learning and teaching. The Chinese proverb “I hear and I forget; I see and I remember; I do and I understand” encapsulates the spirit of constructivism. A typical PowerPoint presentation is based on the usual process—“hearing and forgetting, seeing and remembering,” but leaves out the “doing and understanding” part. That’s because the traditional PowerPoint presentation relies on seeing and hearing; its interactive potential is rarely revealed. Objectivist (nonconstructivist) methods imply that knowledge is transmitted from the teacher to the learner, that teaching is teacher-directed, systematic, and structured (Roblyer and Edwards, 2000), and this is how PowerPoint is often used: as a linear, one-way presentation created by the teacher to inform the students on a selected subject without any interactivity.

The applications and projects described in this book support the constructivist approach, which suggests that students construct their knowledge through active participation in project-based and problem-based activities, through interaction with the teacher and their peers. You will learn how to create interactive and engaging PowerPoint projects using simple and easy techniques.

### **An Amazingly Versatile Tool**

You can do much more with PowerPoint than simply create bulleted lists. For instance, you can insert pictures and then edit them—making them smaller or larger, darker or lighter, or using them as backgrounds for your projects. You can incorporate sound (music, your narration, and other audio files) and you can show video clips, animated pictures, and much more. PowerPoint is a powerful multimedia tool incorporating imagery, sound, and text in one project, using very simple techniques. In addition, PowerPoint includes powerful animation capabilities that let you visually communicate processes, cycles, evolution—anything that changes. Animation also commands the attention of students during the learning process.

Even better for teachers, PowerPoint enables you to create problem- and project-based activities with your students participating in games, interactive

activities, and quizzes. No other software lets you create custom-made quizzes, games, and engaging lessons so easily.

### **Bet You Didn't Know . . .**

Did you know that you can teach a class to memorize a poem in ten to fifteen minutes using PowerPoint? Or that you can create a nice menu slide with thumbnail images? *Did you know that you can develop or teach your students how to develop a multiple-choice quiz in PowerPoint?* Here are some projects you can create in PowerPoint:

- *A quiz or review.* Students choose from multiple-choice questions and get positive feedback for the right answer and negative feedback for a wrong answer that also takes them back to the question so they can try again. You will find the instructions in Chapter 5.
- *An interactive map.* Students click an area of a slide to answer a question (such as “Where is France?”). They get positive feedback for the right answer and negative feedback for the wrong answer that also takes them back to the question so they can try again. The details are described in Chapter 6.
- *A clickable menu with hyperlinks to many other resources.* Students use menu buttons to choose what they want to learn more about. The buttons link to other slides, other presentations, or the Internet. See Chapter 7 for details.
- *A class question-and-answer game.* Students answer questions individually or on teams and get points for the right answers. You will learn how to create such games in Chapter 8.
- *A graded test.* Students answer multiple-choice questions and view a slide at the end that tells them how many they got right. Chapter 9 provides step-by-step explanations on how to write a graded test in PowerPoint.

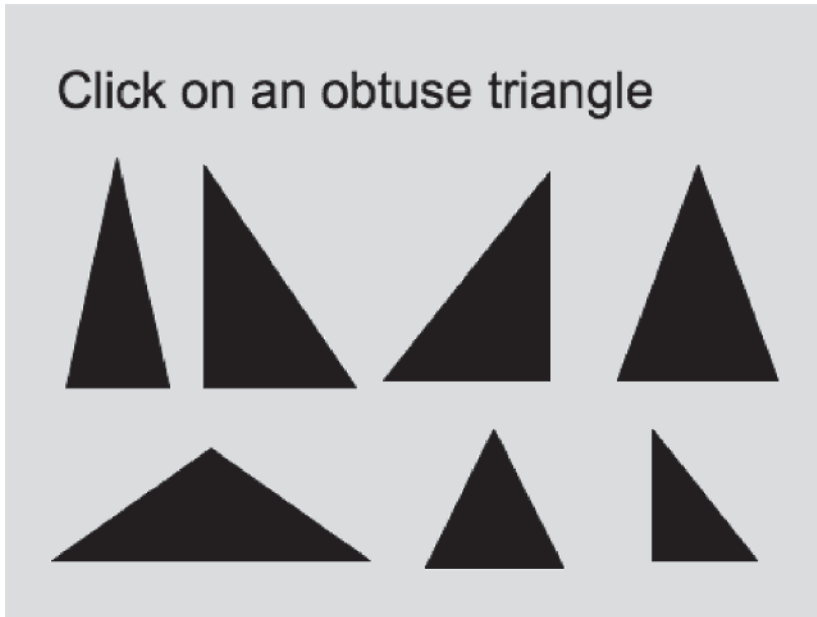
Figure 1.1 shows an example of one PowerPoint interactive project.

## **SUPPORT FOR YOUR INSTRUCTION**

You don't have to have special programs to support your teaching with technology. PowerPoint can help you do that, and very effectively, and almost every school already has PowerPoint.

**Figure 1.1**

**In this example of an interactive project in PowerPoint, students click on one of the triangles and get immediate feedback telling them whether their answer is right or wrong.**



### **Value of Repetition**

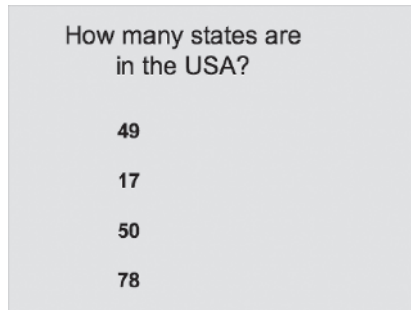
Many teachers use PowerPoint in their lessons—some frequently, some occasionally. Normally, they create a simple presentation, with some facts and figures. Perhaps they add pictures taken from the Microsoft Office Clip Art gallery or downloaded from elsewhere on the Internet. But what if this presentation included a review at the end? Not just a set of questions, but a multiple-choice activity? Wouldn't that liven things up?

*Repetitio mater studiorum est* (“Repetition is the mother of learning”), according to the Latin saying. But simple repetition is boring. . . . Instead, why not do the repetition in the form of an amusing overview, with funny feedback and reward points? The slides shown in Figures 1.2, 1.3, and 1.4 offer examples.

Chapter 5 will walk you through the process of creating a review in PowerPoint.

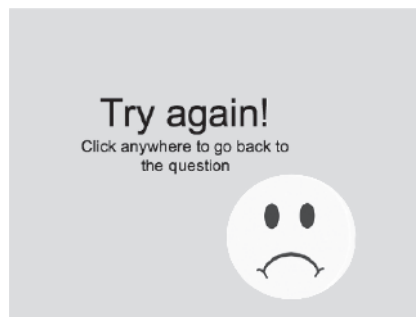
**Figure 1.2**  
**A sample of a multiple-choice quiz.**

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**Figure 1.3**  
**An example of negative feedback.**

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### **A Picture Paints a Thousand Words**

How many times have you heard this? Yet, how many times have you seen a dull PowerPoint presentation with text-cluttered slides and maybe one or two familiar pictures from the Clip Art gallery? Many studies suggest that viewers quickly get tired when shown text-based information, even if it has been well-organized by the presenter. Pictures capture viewers' attention; they support and enhance a PowerPoint project. In this book you will learn how to work with pictures, make

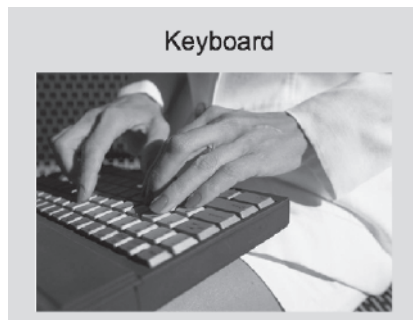
**Figure 1.4**  
**Some positive feedback.**

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**Figure 1.5**  
**You can easily use pictures in a PowerPoint project to foster student interest.**

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them support your project, edit them, and make backgrounds from them. You will also learn how to achieve the most appropriate balance of pictures and text. (We will talk about this in Chapters 2 to 4.)

Figure 1.5 shows a picture on a slide taken from the Clip Art gallery. You can use images like this to encourage student input, or just to display while you're covering a topic.

Read more about the use of pictures in PowerPoint in Chapters 2 and 3.

## Linear versus Nonlinear

The word *linear* comes from the word *linearis*, which means *created by lines* or *straight*. Even some textbooks on PowerPoint say that it is designed to create linear presentations. Of course, there is nothing wrong with linearity. A PowerPoint presentation on a recent field trip can provide the viewers with a documented account of the trip from the departure to the return back home, from point A to point Z—that is, from the first slide (A) to the last slide (Z), as shown in Figure 1.6.

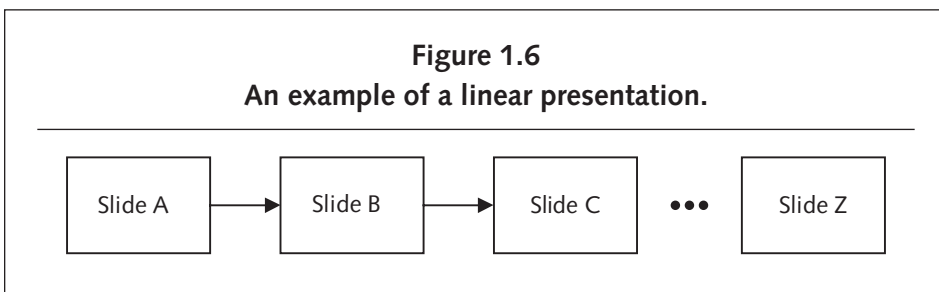
However, many projects call for nonlinearity. For example, in a project on classification of animals, you can first present the classes of animals as a menu and then talk about each class, returning to the menu.

Figure 1.7 gives the idea of how slides are organized in a nonlinear project.

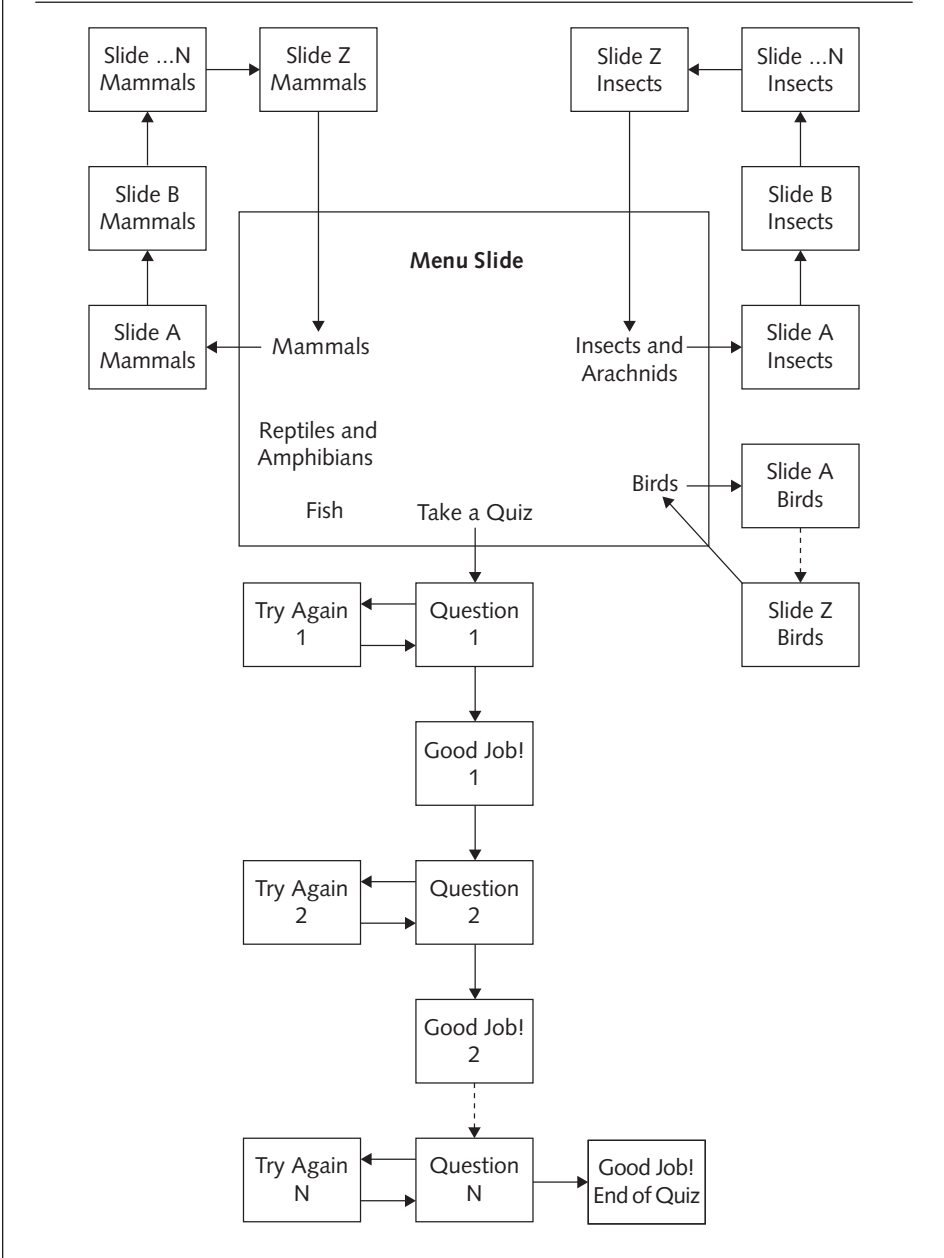
The menu slide offers several routes: you can start with mammals, and go from slide A on mammals to the slide Z on mammals, which will lead you back to the main menu. Likewise, slide A on insects will lead you to slides B, C, and so on, and then also bring you back to the menu. Actually, you can make a link from any slide to the menu, as we explain in Chapter 7. For lack of space, the chart does not show the same principle for reptiles and amphibians or fish.

If you choose a “take the quiz” route, a slide showing Question 1 will offer a multiple-choice question. Any wrong choice will lead you (or the student) to the “Try Again” slide, which returns the user to Question 1. The right choice is linked to a “Good Job” slide, which forwards the user to the next question, and so on, until the end of the quiz.

Thus, instead of a linear PowerPoint presentation, you have a nonlinear, more sophisticated presentation. This organization provides students with a better understanding of the idea of classification and categories. Navigation through such



**Figure 1.7**  
**A nonlinear presentation.**



a PowerPoint show is easier and more in line with the logical structure of classification. A linear PowerPoint presentation can be compared with playing a VHS tape, whereas a nonlinear PowerPoint project is more like playing a DVD that allows a more effective navigation.

To learn how to create a nonlinear PowerPoint presentation see Chapter 7.

### **Teaching with Games**

Such activities as quizzes or short reviews with “true-false” choices can be performed in class in the form of games. You can have competing teams! If you decide to develop your technique of writing quizzes in PowerPoint, you can even give graded tests with points. Multiple-choice quizzes can be further developed into games similar to the TV show *Jeopardy*. For more fun, add music, applause, and other audio effects in your feedback. Clickable maps provide a good opportunity to learn geography, biology, geometry, and other subjects in a fun and exciting way. You will find detailed instructions on how to create such projects in Chapter 8 of this book.

### **Assessing Retention and Understanding**

You can use quizzes and clickable maps for reviews to enhance retention and understanding. The technique for developing these activities is not at all difficult. Ungraded reviews are very easy to create, and you can customize the questions and answers for specific groups or even individual students.

If you’re an advanced user, you will find instructions in this book on developing more sophisticated graded tests with calculated final scores as tools of assessment. But don’t be afraid! These instructions do not require any knowledge of computer languages; anyone who follows these instructions can create an effective graded test! See Chapter 9.

### **Encouraging Problem-Based Learning**

Quizzes and clickable maps and pictures are big steps in the direction of project- and problem-based activities. However, you can go much further. Creating a fun and interactive PowerPoint project for your students is wonderful, but getting them to create their own projects is even better. People learn by doing, and when students develop their own projects in PowerPoint on a specific topic, make no mistake, they will learn this topic in detail!

How many times have you seen student projects on display in the school's cafeteria or gym, with pictures carved and pasted on cardboard with some hand-written notes underneath? Why not teach your students how to develop the same projects in PowerPoint, with pictures, sound, and interactivity? You can be sure that your students will be more excited and willing to work, and you will not believe the amazing projects they can come up with!

Chapters 14, 15, and 16 of this book discuss how to teach PowerPoint to students. After they have seen the interactive projects that you have created, they will be eager to create their own.

## **FROM PRE-K THROUGH PH.D.**

Because of its tremendous potential to combine sound, image, and animation, PowerPoint can be used effectively with students in virtually all grade levels. The specific way you use this program will, of course, depend on the students' age and other factors.

### **Fun in the Early Years**

So when can you start using PowerPoint with your students? The earlier, the better. Once prekindergarten and kindergarten students learn how to control the mouse, they can view PowerPoint presentations and participate in interactive projects: matching colors, identifying shapes, determining patterns. They don't even have to know how to read to get feedback: a smiley face or a picture of a candy plus a sound file saying something like "Good job!" constitutes great positive reinforcement. You can even narrate the instructions, such as "Click the triangle."

PowerPoint provides you with a flexible tool to enhance your teaching methodology with both smaller and larger projects. In many cases special educational software may not be suitable or available, but you can rely on PowerPoint-based activities to make your teaching more effective. It's hard to overestimate the advantage of developing computer skills with pre-K students.

At the rate that computers are becoming available for education, students will soon be using computer technology as a learning tool from kindergarten through high school. As the number of laptop computer campuses (universities that provide every student with a laptop computer) increases, chances are that when

today's kindergarten students reach college they will have a laptop as a basic necessity and a regular tool, as ubiquitous as the ballpoint pen. Chapter 10 provides some project ideas for pre-K to first-grade children.

### **Beginning to Think in the Lower Grades**

One very experienced and acclaimed teacher said: “Poor teachers teach subjects, good teachers teach life.” According to vast research, problem-solving skills should be developed as early as primary school. Problem- and project-based education should start from the first grade. Computer technology in general and PowerPoint in particular play key roles in problem-based activities and in developing projects that cross curricular boundaries. As they approach the end of elementary school, students can already use basic PowerPoint tools and make it a regular medium for their projects and assignments.

You can enhance almost any topic that you teach with a PowerPoint project or presentation. Math problems and quizzes are easy to design. Science topics are ideal, because you can so easily add images and animation that portray processes, as shown in the water cycle project in Chapter 2. You can bring history and geography alive with paintings of earlier times and clickable maps. A PowerPoint presentation is a great way to display grammatical concepts on a big screen. Even art and music are appropriate subjects for a slide show.

Of course, we don't suggest that students read books in PowerPoint! However, you can use PowerPoint for remedial work and for students with special needs. In many cases, it will be more effective than anything else! It is you who must decide when it is appropriate. The beauty of PowerPoint is that you can reuse your projects as many times as you want!

For ideas on PowerPoint projects for grades 2 to 5, see Chapter 11.

### **Expanding the Mind in Middle and High School**

Problem-based learning, and projects that cross curricula to involve more than one subject, are a modern school's priority. Again, computers are a great tool for this, with PowerPoint being the easiest and most effective software.

Imagine a water project for middle school students involving the following:

- The physical and chemical properties of water
- The importance of water for the human organism and society

- Water pollution
- The historical significance of water for early civilizations
- The amount of water on the earth (a great project to explain math concepts)

You can describe and present these many aspects of water and more in a PowerPoint presentation with pictures, sound, and interactivity.

You can assign and perform group projects, individual projects, projects for school exhibitions, and charts and graphs for display.

By working on such projects, your students will develop teamwork and computer skills—skills they will need in college and beyond. Read Chapter 12 to get great ideas for PowerPoint projects for middle and high school students.

### **Expressing Knowledge in College**

PowerPoint has already become a popular tool for college presentations. Many students present their projects using PowerPoint, but, as mentioned earlier, such presentations mostly involve text, figures, and some pictures from the Clip Art gallery. Not all professors assign their students projects to develop in PowerPoint, but they all welcome such endeavors. Preparing a PowerPoint presentation for economics or sociology classes has become almost a requirement; presenting with PowerPoint in classes on pedagogy or psychology should be more common.

Both college professors and students can add some interactivity and fun to such projects. Why not capture the class's attention with a dynamic interactive activity accompanied by sound and, maybe, music? By college, students are ready to create much more complex presentations, including those with menus and nonlinear structures.

We believe that by the time students reach college, teachers should expect not only well-organized content (an introduction, development, and a conclusion) but well-developed and thought-out concepts. In addition, college is a good time for students to work on public speaking and presentation skills. Chapter 16 offers suggestions on using and teaching PowerPoint at the college level.

### **WHEN NOT TO USE POWERPOINT**

It is the teacher—not PowerPoint or any other technology—who makes the difference. PowerPoint is only a tool; it can be used in a creative and effective way,

but it is the teacher who uses this tool. Fruit is good for human health, but most people cannot live on fruit alone; everything is good in moderation. Any tool becomes blunted when used too frequently, and PowerPoint is no exception. Sometimes the computer, or PowerPoint, is not the solution. When you can teach a better lesson without PowerPoint than with it, don't use it! Here are some important tips:

- Do not use PowerPoint when you have a poor or undeveloped project just to make this project more appealing.
- Do not use PowerPoint if your presentation is very short and does not provide much information.
- Do not let a presentation interfere with your rapport with your students. Even during a presentation, there are times to turn off the projector and have a person-to-person discussion.

Again, it is you who presents. PowerPoint is only a supporting tool for your classroom presentation. Use it to create a favorable environment for your project and to enhance the information with visuals, sound, and special effects.

## **SUMMARY**

This chapter explained how PowerPoint can make your teaching style more effective. PowerPoint has special appeal if you are a constructivist: it is a versatile tool for teaching and learning and a great device for project-based learning.

We explained that PowerPoint can incorporate pictures, sounds, and animation. PowerPoint projects can be linear or nonlinear, thus offering you greater flexibility in your teaching.

We explained that PowerPoint's interactive potential allows you to teach with games, devise projects to address retention and understanding, and encourage problem-based learning.

We explained that you can effectively apply PowerPoint at all school levels. We also noted that there are times when it is better not to use PowerPoint than to use it.

