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# PowerPoint: What is the Point


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PowerPoint presentation software has been aggressively marketed to business and academic audiences with the promise that it will enable users to "work smarter" and make more "professional" presentations. Many teachers, from elementary school through college, have enthusiastically embraced PowerPoint as an instructional tool, claiming, for example, that it "enhances instruction and motivates students to learn" (Harrison, 1998, p.9). Critics, however, contend that the software's rigid format "usually weaken[s] verbal and spatial reasoning, and almost always corrupt[s] statistical analysis" (Tufte, 2003, p.3). Teachers thus face a dilemma. Powerful cultural and institutional forces promote the use of PowerPoint, but the software itself may actually undermine and distort student learning. The question is: how can a teacher use PowerPoint thoughtfully and effectively?

## The Literature on PowerPoint

The literature on PowerPoint and teaching falls into three categories. Articles in the first category offer ideas for creating and delivering more effective presentations. These pointers are almost always technical or aesthetic and avoid larger questions about PowerPoint as a teaching tool. Articles in the second category range from general accolades to specific teaching ideas. Literature in both categories is generally uncritical and takes PowerPoint presentations as given, rather than investigating when, how, and why they could be appropriately used. Even articles in publications devoted to teaching

do too little to place PowerPoint in the context of learning. For example, Buchholz and Ullman's "12 Commandments for PowerPoint" (2004) are really only tips that have to do with technical issues, the creation of slides, and presentation style. With the exception of the suggestion that presenters "use interactive exercises to address other learning styles," the "12 Commandments" imply that teaching is a one-way transfer of data rather than an interactive process. For all of its bells and whistles, PowerPoint in itself is static and does not necessarily promote the dynamics of effective teaching and learning.

The third category of writings attempts serious engagement with the use of PowerPoint in teaching. While noting both the plusses and minuses of PowerPoint, these articles frequently criticize its rigid structure that both cuts off dialogue and oversimplifies complex ideas. General complaints include presenting in the dark, which diminishes teacher and student interaction; lack of flexibility (Sequential presentation of slides can inhibit productive digressions and extended discussions.); and lack of creativity (A focus on the presentation of information can exclude attention to problem-solving.). Mason and Hlynka (1998), for example, argued that "PowerPoint's design and expected use adds to classrooms what there is too much of: teacher-centered, pre-planned, lockstep delivery of information, primarily through words" (p.43). PowerPoint focuses the classroom on the material, not on the learners; it distracts or mutes the complex interaction among teacher, learners, and ideas. MIT Professor Sherry Turkle asserted that PowerPoint is part of a general trend that "keep[s] us from complexity" and that "we should be quite skeptical about [it] as a pedagogical tool" (in Keller, 2003, p. 8).

## Connecting Technology to Learning

PowerPoint is not inherently capable of engaging students, despite enthusiastic claims by its promoters,. By investing too much faith that the software itself will "transform a routine lesson into a lively, even memorable session" (Alster, 2002), teachers abdicate their own responsibilities. Such unfounded faith is best represented by those presenters who project PowerPoint slides on a screen and then simply read the contents of each slide, one after another, until the presentation is finished. Implicit in such behavior is the assumption

that teaching is simply the delivery of content and that PowerPoint delivers content in a format that naturally attracts students' attention. But, as Garmston (2000) argued, "the audience interaction with the content—if learning is the goal—is always more important than the content itself" (p.76).

Basically teaching with electronic technology is no different than teaching with chalk and a blackboard. Chickering and Ehrmann's observation (1996) that "for any given instructional strategy, some technologies are better than others" points the discussion of appropriate uses of PowerPoint in the right direction. The decision to use any form of technology in teaching should be made only in the latter stages of course design, when course goals, structure, and assignments have already been devised. Technology should not be an add-on or an imposition but rather a means for achieving the goals of the course. Consequently, as Garmston (2000) cautioned, PowerPoint "must be used flexibly and sparingly to provide audience interaction with its content" (p. 77) just like writing on a blackboard, printed handouts, videos or films, or any other teaching tool.

If PowerPoint cannot by itself turn a dull class into a lively one, it may still have effective uses in teaching. Tufte (2003) is correct to assert that "the core ideas of teaching—explanation, reasoning, finding things out, questions, content, evidence, credible authority not patronizing authoritarianism—are contrary to the hierarchical market-pitch" (p.11) of the PowerPoint templates. But the crucial question for teachers is always: why and how am I using this activity to promote the goals of my course? Tools in themselves accomplish nothing, unless they are employed for the appropriate tasks and wielded with skill and precision.

The key to using any technology effectively is to keep in mind what the course is really about.

## How to Use PowerPoint Effectively

Used in support of clearly articulated pedagogical goals, PowerPoint can enhance student learning in several ways. First, it can substitute for more cumbersome technologies like the overhead projector or a slide projector. A CD ROM loaded with images is a lot simpler and

more portable than a collection of slide trays—even if the picture resolution is considerably diminished. Similarly, complex mathematical and scientific drawings or formulas can be clearly and simply presented. PowerPoint can also vividly show processes: animated slides, for example can illustrate a chemical reaction, or reveal how a poet edited and changed a poem. Still the effective presentation of information does not ensure that learning has actually taken place.

PowerPoint slides can provide starting points for interactive processes that promote learning, but they are only a small part of that process. For example, prompts for writing or discussion, instructions for in-class activities, lists of talking points, or student comments can be clearly displayed to an entire class in large and easily legible type. In addition PowerPoint can enhance a discussion or lecture by providing supplemental materials for a variety of learning styles, including photographs, illustrations and graphs in color, and charts that reveal relationships.

Many teachers believe that students using PowerPoint presentations is a productive learning activity (Alster, 2002; Mason & Hylnka, 1998); yet detractors believe that its rigid format stifles not only students' creativity, but also their ability to understand and convey information (Tufte, 2003; Keller, 2003). Consequently, teachers need to make as clear as possible what the use of a tool like PowerPoint is supposed to accomplish, both in terms of skills and learning.

Outside of the classroom PowerPoint can be used to provide review and supplementary materials to students: for example, notes with references to important passages discussed in class can be posted to a website and downloaded by students after class. For the disorganized teacher or student, PowerPoint can support preliminary organization of data. However, it does not support the processes of analysis and interpretation of data equally well, especially the complicated and extensive interrelationships among them.

## Conclusion

Despite outside pressures, using PowerPoint—either in the classroom or outside of the classroom—needs to be a sound pedagogical decision. It can support, but never substitute for,

carefully thought-out learning activities. Teachers need to be clear about what their use of PowerPoint is designed to achieve, for themselves, their students, and their courses. The primary goal should always be the promotion of deep, long- lasting learning by fostering students' interaction with the material, the teacher, and each other.

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