Chapter XXXI
Good Old PowerPoint and its Unrevealed Potential

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ABSTRACT

Though extremely popular with school teachers, PowerPoint is almost never used as an interactive tool of teaching and learning. The following chapter describes how to create interactive and fun projects in PowerPoint: reviews, interactive maps and games. The chapter is of a practical rather than of research or theoretical character. It targets in-service teachers of schools and colleges. The described techniques require only basic computer skills. A case study on the effectiveness of the techniques is described at the end of the chapter. Multiple internet resources on PowerPoint use in education are offered.

INTERACTIVITY IS KEY

Now that there are multiple software and hardware especially designed or customized for education, PowerPoint seems like yesterday’s news. In fact, what is new about it? Almost all (if not all) teachers have been using PowerPoint with some degree of success and effectiveness. PowerPoint has become a very-well accepted and established tool of teaching, almost ubiquitous and taken for granted. Answering the question “Do you use computer technology in teaching?” most teachers normally say: “Sure, I do PowerPoint presentations”. If a school has a single computer, make no mistake: it will have some version of MS PowerPoint installed. Teachers’ home computers also have PowerPoint, as long as they have MS Office. The author has taught PowerPoint to pre-service and in-service teachers for quite a number of years. The way many teachers are using PowerPoint is exactly how PowerPoint should not be used. Normally, PowerPoint is used as a linear, one-way presentation created by the teacher to inform the students on a selected subject without any interactivity. Besides, teachers and most presenters of other walks of life think that placing a text on a slide enhances their presentation. Garr Reynolds in his excellent book “Presentation Zen: Simple
Good Old PowerPoint and its Unrevealed Potential

Ideas on Presentation Design and Delivery” notes that no person can listen and read at the same time (Reynolds, 2007). Much less school students!

Most literature on PowerPoint clearly suggests that using PowerPoint in the wrong way (by simply copying and pasting text on slides and projecting them to the audience) is actually more harmful than using no PowerPoint at all (Atkinson, 2005; Finkelstein and Samsonov, 2008; Altman, 2007; Weissman, 2006; and many others). Many teachers, according to our observations, use PowerPoint simply because their administration requires that they “use technology in the classroom”. Uninspiring, boring and unnecessary presentations, unfortunately, are what most school students see in the use of PowerPoint. Teaching in-service and future teachers new techniques in PowerPoint changes their attitude, quite negative at times, to this great software and provides them with new ideas on their teaching at large.

The applications and projects described later 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. To follow is the description of how to create interactive projects: reviews, images and games.

Used in class on a regular basis, most PowerPoint presentations contain parts of text, some short or contracted sentences and some graphics, bullets and digits to support the content. As a rule, presenters use some slide design templates, mostly from MS Office, or as downloaded from the internet. Some sound, animation and images reveal a seasoned PowerPoint user. However, the presentation itself does not interact with the audience. The audience remains passive recipients of the information presented with a help of PowerPoint. No one in the audience is expected to change the sequence of the slide show, which goes in a linear way from the first to the last slide as designed and presented by its creator.

According to the survey conducted by Indiana University in 2007 with over 81,000 high school students, 75% of American high school students “are bored in class” and consider dropping out. The researchers who conducted the survey believe that the reason for such attitude is that “students are not being involved in interactive ways in the teaching and learning” (High School Students Bored, risk dropping out: Survey, 2007).

Though being one of the most popular programs used in the schools, PowerPoint is rarely recognized as a means of interactivity. However, the interactive potential of PowerPoint is powerful and easy to apply.

The idea of nonlinearity and interactivity in PowerPoint is not new (Cavanaugh, T. & Cavanaugh, C. , 2000). The technique of creating quizzes in PowerPoint has been described by a number of authors (Marcovitz, D. 2003, 2004; Bajaj, 2004; Finkelstein, 2005). Marcovitz (2003, 2004) and Finkelstein (2005) offer an interesting and powerful method of creating interactive projects in PowerPoint using scripting in Visual Basics for Applications (VBA). This method is extremely powerful and offers a lot of options; however, it is not always realistic to expect a school teacher to learn scripting. Given the most basic computer skills even among the most devoted computer-using teachers, the mere idea of “scripting” may sound like a deterrent.

The following text suggests a simple and effective technique of creating interactivity by hyperlinking several slides. Normally, such technique involves clicking a hyperlinked word or another object on a slide. For example, a slide offers a question with a set of responses in a form of a multiple choice. Each word is linked to a slide. The wrong choices are hyperlinked to the slide(s) with a negative feedback (something like “Sorry, try again”), and the right choices are linked to the slide(s) with a positive feedback (“something like “Yes, that’s correct”.

The technique proposed later also allows clickable mapping of images with multiple “hotspots” of different sizes. Both methodologies are designed for teachers and students who have
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