"Powerpoint® Engagement" Techniques to Foster Deep Learning

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These 10 engagement strategies can be systematically infused throughout virtually any classroom PowerPoint® presentation. The effort is in the preparation, not in the execution.

Introduction

"PowerPoint® engagement" definitely qualifies as an entry in our master oxymoron list. When you Google "PowerPoint engagement," you are directed to (1) one Web page called PowerPoint Disengagement (2008), where employee engagement expert David Zinger introduces the video "Death by PowerPoint," and (2) Websites on PowerPoint® engagement templates with rings related to marriage. That's not exactly what I had in mind. Those two words usually are not uttered in the same breath, multiple breaths, or no breath at all. Further, *deep learning* isn't even a blip on the PowerPoint® radar screen.

How are *PowerPoint®* and *engagement* connected? I don't have a clue. But, interestingly, integrating engagement techniques we normally use in our teaching into PowerPoint® is quite straightforward and relatively easy. What isn't so easy is altering one's mindset that compartmentalizes *PowerPoint®* and *engagement* as two antithetical, contradictory categories of teaching tools. There is hardly a single obstacle to including engagement in PowerPoint®. In fact, in the process of executing PowerPoint® presentations, there are several techniques that jump out and say: "Put me in PowerPoint® where I belong. Pleeease. I'll be your best friend."

Learner-Centered Teaching

The popularity and effectiveness of learner-centered teaching methods have grown significantly over the past decade with buckets of excellent resources (Barkley, Cross, & Major, 2005; Berk & Trieber, 2009; Cornelius-White, 2007;

Mazur, 1997; Millis, 2010a, 2010b; Staley, 2002; Weimer, 2002). Considering what you know about engagement strategies, how would you answer this question: What engagement strategy *can't you use* in the course of a PowerPoint® presentation? Believe it or not, you can
- stop anytime,
- direct any activities,
- break into small groups, large groups, or multiclass groups,
- provide examples,
- present visual images,
- introduce student demonstrations with or without media, and
- request students to take notes on material you're adding to slide content.

Virtually any active, interactive, collaborative, and cooperative exercises, including improvisation, can be systematically integrated into the presentation or can spring up spontaneously as it unfolds during the PowerPoint®. Multimedia can also be embedded or streamed in at any point. This wide array of options may serve to simply grab or maintain attention throughout the presentation or, more importantly, to foster deep learning.

Use of PowerPoint®

I know what you're thinking right now: "Are you joking? That's not the purpose of PowerPoint®. PowerPoint® is just a presentation platform from which you lecture." That's easy for you to say with impeccable grammatical structure. There is no reason why that platform for your presentation can not be packed with engagement activities. There are a variety of tools in your teaching arsenal, which can be efficiently and effectively integrated into one platform.

The purpose of this article is to describe a bunch of strategies with which you may already be familiar and, perhaps, use regularly, but not always in the context of a formal PowerPoint® presentation. Here are my top 10 engagement techniques that fit neatly within any version of PowerPoint®. Some of these may also be used with Prezi® or other presentation software as well, if you prefer. The target group in the examples is students; however, the techniques are generic to any audience. Although, potentially, they are intended to grab and maintain attention and facilitate learning, your specific application will determine the outcome(s) attained. As you proceed through my 10, another 10 may automatically pop out of your left hemisphere, or maybe the right.

Top 10 Engagement Techniques

1. Fill-in-the-Blank Trick

This trick has been used for centuries. Cave professors used it in their stone tablets, which became the forerunner of today's PC tablets and iPads. If students have a handout copy of the slides, pick a few REALLY IMPORTANT slides and leave blanks for key words in a sentence or phrase to be filled-in as you go over the content. Those words will be supplied and highlighted on the slides. This technique is based on the concept of closure to complete the point of the sentence or phrase.

Remember: While students are writing the words, most can't also listen to what you're saying. Flash the "blank" word, give them a moment to write it, then make your point. This practice grabs attention for the moment and engages students to write and listen. Consider doing this infrequently during the presentation because many students may find those blanks annoying. You know your students and their limits.

2. Questions to Be Answered by Hand-Raises, Flashcards, or Clickers

During your presentation, you can ask isolated serious, innocuous, or humorous questions to reel your students' minds back into the topic (Berk, 2003). A show of hands engages everyone.

Examples:
"How many of you are parents? How many of you had parents?
"How many of you have a dog? How many of you have ever seen a dog?

Notice that the second question provides the "sure-fire" humor, plus it requires everyone to respond.

A more formal series of questions, which can probe or extend students' understanding of the content or serve as a planned or spontaneous quiz, opinion survey, or some

other stimulus, can be prepared in advance on the slides, one question per slide. Students can respond with hand-raises, flashcards, or clickers for real-time feedback. With the last-named, their answers can be displayed in graphic form almost immediately on the same slide.

If you don't have access to clickers or another electronic response system (see Bruff, 2009), this technique can still be used effectively as a self-check for everyone. Once the students answer a question, you can reveal the correct answer, as a visible quiz (Staley, 2002). If there is no correct answer, as in the case of opinion questions, the hand-raise or flashcard answers may yield the socially desirable answer.

The question stimuli presented to the students may be part of your PowerPoint® or a planned peer-instruction activity (Mazur, 1997). The preceding response options do not differ significantly in student learning, especially clickers versus flashcards (Lasry, 2008). The point is that all of the question and response formats engage students; it's the activity, such as peer instruction, with or without the students' feedback, that increases learning. Clickers are a technology teaching tool that can improve engagement, archive student response data, promote peer instruction, and generate activities based on the answer display. Like other technology tools (Solvie & Kloek, 2007), clickers should be incorporated into PowerPoint® with a specific purpose or outcome in mind.

3. Survey with a Rating Scale or Checklist

One approach to introduce a topic or segue from one topic to the next is to give your students a short scale or checklist to complete. It should be a nonthreatening list of perhaps 10 activities, practices, or behaviors that connect their world to the content coming up next. This is NOT a content quiz. It measures opinion, attitude, or personal practices. It provides a preview of the type of content to be covered and forces the students to start thinking about it and how to apply it. The tool is an effective hook to pique interest and quickly connect students to the content.

Once they complete the scale, they have an emotional connection to the material because it's now about them. The scale items generate interest, motivation, and concentration on the content that you haven't even covered. Either post the scale or the name of scale on the screen or distribute copies so the students can complete it easily and quickly. Two or three minutes are usually adequate. Just watch their eyeballs. If most of them are looking at you or other students, proceed. Always have the students total their scores and ask how many scored in three categories: high (8–10), middle (5–7), and low (1–4).

Example: Suppose you are doing a presentation on "defense mechanisms." You could construct a list of 10 common defense mechanisms that most people use to cope

with threatening situations. Then ask: "How frequently have you used this behavior in the past week?" OR "Check the behaviors you have exhibited in school this past week." The students now have a vested interest in the topic and are hooked, at least temporarily.

4. Students Read or Interpret Content

As we all know by now, we should not be reading text or lists verbatim off of the slides and, in general, neither should the students. However, occasionally, stop talking and, after a moment of silence, transition to the next slide and allow the students to read each line or bullet as you reveal it incrementally with animation. Give them a few moments to process the information. Now they're engaged. Ask them a question or challenge them to interpret, add, amplify, discredit, etc. the content they read. That's when the learning begins.

5. Exercise, Problem, or Peer-Instruction Activity

Instead of telling your students the instructions for a problem, exercise, or game for large group or small group format, post those instructions on the screen and don't say a word. It's silence time again. Just watch what happens.

Peer-instruction activities, mentioned previously in conjunction with various student-response techniques, fit into this category as an approach that can engage students and challenge them to commit to a point of view that they can defend. The learner-centered references cited at the beginning of this article provide tons of other interactive exercises.

Example: Describe the problem students need to solve and the logistical parameters to solve it (e.g., time, number of people, resources, format) on the slide. This activity can occur any time during the presentation.

6. Class Provides Answers on a Tablet

When you need to gather the collective wisdom to a problem from the whole class or small-group leaders after a think-pair-share or other exercise or walk the students through a step-by-step process, use a PC tablet or iPad to record their responses, which can be immediately projected on the screen. This type of input generated from problem-solving and similar activities can produce a reflective and stimulating discussion. You can type and post the results on the screen as they emerge.

7. Open Q & A (Black slide)

At any time during the presentation, you can stop for a Q & A. It may be planned with a set of questions on a slide or be spontaneous in the course of the presentation.

If the questions are listed, reveal one question at a time so students will focus only on that question. Disclose each question as the discussion progresses. If you stop for one major question, allow students time to read the question, then press the "b" key once and a black slide appears. Now you want the students' attention on you and the question that you posed, not on a bright slide on the screen. When you're ready to resume the PowerPoint®, just press "b" again and it will return to the slide where you stopped. Now you can proceed with another question or the rest of your presentation.

8. Skit, Parody, or Demonstration (Black slide)

If students are supposed to participate in any activity in front of the class, you want the rest of the class to direct their focus on them. That means black screen-time again. If it is planned during the presentation, a black slide can be inserted when you arrive at that point. Also, if music is used to introduce or accompany the demo, the clip should be embedded in the black slide. That black slide says: "Focus all eyeballs on the students in the demo." Alternatively, if there is a spontaneous skit that emerges in the course of the PowerPoint®, use the "b" key to create the blackout.

9. Music or Video Clip Reaction

When a music or video clip is embedded in a slide (Berk, 2008, 2009) or a link on the slide streams in a video (Eddy & Bracken, 2008; Miller, 2009), you need to plan how you want to handle the students' responses. If the clip is intended to stimulate a discussion with or without questions, consider where you want the students' attention—on you, on each other, on the questions on a slide, or some other place. Carefully design the music or video stimulus with a specific learning outcome in mind. Use your slides on the screen to facilitate the activity you create, not detract from it. The activity should fit in seamlessly as part of your PowerPoint®. It's all in the preparation.

10. Still Image, Diagram, or Graphic Display Stimulus

Any visual image in your presentation can be used to incite your students to riot. Calculate the timing of your images to achieve specific outcomes. Animated images, in particular, that depict processes and complex concepts can facilitate deep learning and retention of that material.

Even the recorded display of students' reactions to planned questions from clickers, described in number 2, can provide a new stimulus. One major advantage of the electronic response system is the immediate response you and the whole class receives, for better or worse. The visual feedback on their feelings about the material being

covered from opinion questions or their understanding from quiz questions can be used to direct other classroom activities. Use the graphic display as another engagement stimulus to correct, expand, or create something new to which all students can relate.

Conclusions

The preceding 10 engagement strategies can be systematically infused throughout virtually any classroom PowerPoint® presentation. The effort is in the preparation, not in the execution. Instead of shutting down the PowerPoint® to do an engagement activity, click the slide that contains the instructions for the activity or click the "b" key to interrupt the presentation to answer questions. The entire presentation with activities can progress without a hitch for the entire class period, whether it lasts 50 minutes or three hours.

If you use any of these techniques, your PowerPoint® planning must consider what goes on the actual slide that prompts the engagement activity. The primary criterion is: *On what do you want your students' eyeballs to focus?* The answer boils down to the screen, other students, or you. More specifically, students should rivet their attention on instructions or a word, phrase, question, checklist, exercise, activity, demonstration, print image, video, each other, or you. If they're not watching the screen, insert a black slide or click "b" on your keyboard. Follow the old adage: *"Less is more,"* or *"Less is best,"* or *"More is best."* Sorry, I forgot the adage.

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