

## FEATURES SECTION

# Effective teaching: The art of engagement Part 2

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*Invited paper*

## Introduction

This article is the second of a two-part series on creating an effective teaching presentation. Today, any orthodontist has the capability to assemble a lecture or presentation for a group of dentists. What if you were invited to give a 1 hour presentation about orthodontics to a local dental society, study club or other specialty group? How would you structure the presentation? Will you teach or lecture? Teaching and lecturing are not synonymous terms. Anyone can stand in front of an audience and lecture. However, the audience may not learn anything, if the presentation is not structured and delivered properly. Since most orthodontists have little training in the fundamentals of teaching, their presentations are often ineffective, and simply become a ‘show and tell’ lecture. However, there are specific teaching principals that can make any presentation a valuable learning experience for the audience. Part 1 of this article identified, illustrated and discussed the first five guidelines for creating an effective teaching presentation. First and foremost, you must know your audience and select a topic that will keep them engaged. Then you must determine the scope of your presentation – breadth versus depth. Thirdly, determine the amount of material you can effectively cover in your allotted time. Fourthly, you must engage the audience from the start with a powerful and meaningful introduction. Fifthly, you should speak with a conversational tone in order to keep the audience engaged. Part 2 of this article will identify, illustrate and discuss the final five guidelines that should help any orthodontist develop a more meaningful presentation and become a more effective teacher.

## Guideline 6: Creating the Flow

All of the preliminary steps have been completed in designing your presentation. Now it is time to assemble the body of the presentation. The presentation must flow as you develop your topic and move through the various images that you will use to illustrate your points and teach your subject. If you do not have a flow to your presentation, the audience could become disengaged. There are six steps to remember in establishing a flow to your presentation.

If the presentation doesn't flow, the audience will disengage.

The first step is to:

- Give the audience direction. Let them know where you and they are going with your presentation. Direction is the outline or skeleton of the presentation. It is the structure that you return to from time to time as you embark on different facets of the presentation. Each time you return to the base-line structure, the audience knows where you are, and it allows them to stay engaged or become re-engaged.

Let the audience know where you and they are going.

The second step in creating flow to your presentation is to:

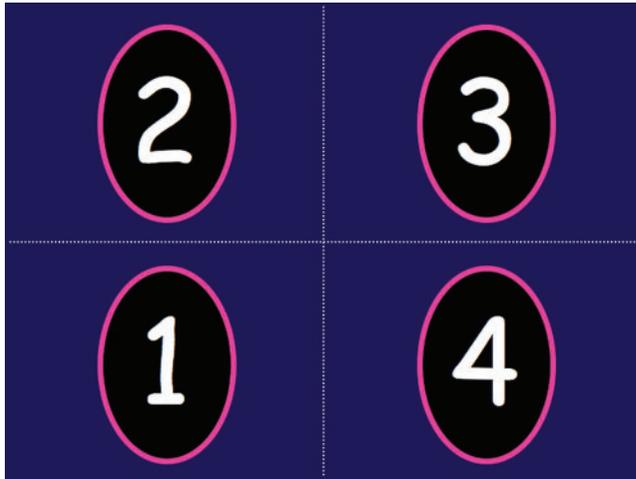
- Have distinct junctions that lead the audience along. Personally, we like to use numbers, e.g. 1, 2, 3, etc., as we proceed through the structure of a presentation. When you return to the next number, it gives the audience a chance to catch their breath, it gives you a chance to summarize what you have stated so far, and

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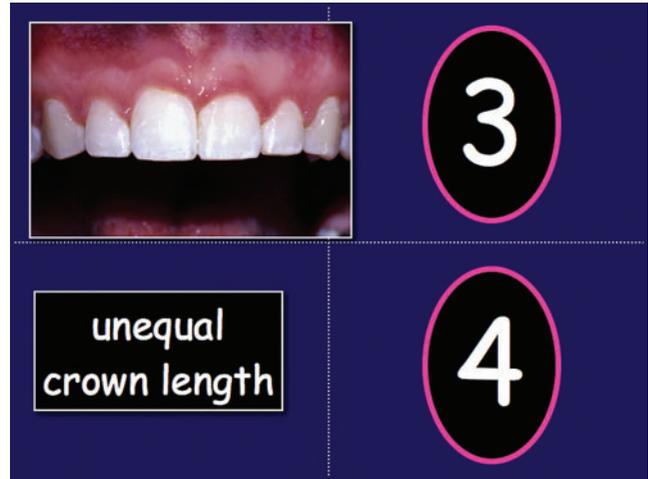
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(a)



(b)



(c)

to tie-in how the next section relates to the overall theme of your presentation. In this way, the presentation flows from section to section so the audience will stay engaged.

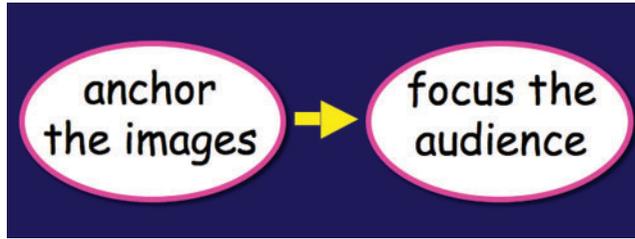
Have distinct junctions to lead the audience along.

The third step for creating flow between the images that appear in each subsection of your presentation is to:

- Use a technique called ‘anchoring’ the images. If you are using a standard 7×10 format to create your PowerPoint presentation, you have the ability to use all parts of the screen to create flow for the audience. We like to divide the screen into four quadrants (Figure 1a). These quadrants can be used for specific purposes during your presentation. As you pass between images, some of the quadrants should not change. This will anchor the audience’s attention on

**Figure 1** (a) In order to create a flow to your presentation, the PowerPoint screen can be divided into four quadrants, numbered 1–4 in clockwise order. (b) The lower left quadrant can be used to identify the title of the subsection you are discussing. (c) The upper left and lower right quadrants can be used to show successive clinical images to illustrate your points. (d) The upper right quadrant can be used to show a list of sub-topics that further define your topic. By only changing the image in one or two of the quadrants on successive images during your presentation, you have created a flow that will help to maintain the audience’s attention. Their eyes will quickly notice the image that changes, but they will still be anchored to the remaining parts of the original image. This helps to keep the audience engaged

the specific topic or clinical situation that you are describing and allow you to focus the audience’s attention on the image on the screen that you are changing. The lower left quadrant of the screen can be used to identify the general topic that is being covered in that particular segment of your presentation (Figure 1b). The upper right quadrant can be used to develop a list of steps that you may be trying to teach to the audience during your presentation. The list of steps can remain on the screen as the upper left and lower right quadrants sequentially show the clinical photographs, diagrams, radiographs, dental casts or whatever image is necessary to teach the audience the points that you are illustrating during your presentation (Figure 1c). When you only change some of the images on the screen, you control the audience’s eyes and direct them immediately to the image that has changed. This creates a smooth flow



**Figure 2** When you anchor the images, you focus the audience

from image to image and keeps the audience engaged. Remember, by anchoring the images, you focus the audience (Figure 2).

The fourth step in creating a flow to your presentation is to:

- Build on the anchor images. The use of presentation software such as PowerPoint and Keynote (Apple Corporation) allows you to add labels, arrows, measurements, etc. to the anchor images.
- Again in this way you are directing the audience's eyes to follow your description as you guide them from image to image.
- By sequentially and gradually adding labels to the anchor images you can avoid using a laser pointer, which can be distracting and disengage the audience.

A fifth step in creating the flow of a presentation is to:

- Regularly vary the format of the images on the screen. When you are presenting a series of steps during the teaching of a particular point, anchoring the images is helpful.
- However, only using the four-quadrant format can become monotonous and disengage your audience. So, every so often you should alter the format of the images on the screen. For example, have only one image on the screen, or a title, or two images side-by-side rather than arranged in quadrants.
- This strategy will help to add some variety to the flow of your presentation and keep the audience from becoming disengaged.

The sixth step to remember when creating a flow to your presentation is to:

- Vary the images that you use to illustrate your points and teach your concepts. By varying the images, we mean to use different types of images to create variety. For example, as an orthodontist, you could use

Varying the images enhances the illustration of your message.

BUT

A distracting presentation disengages the audience.

intra-oral photographs, intra-oral radiographs, facial photographs, cephalometric radiographs, dental casts, diagrams, references to scientific articles, etc.

- By varying the images, you will create a more colorful and varied illustration of your message.

## Guideline 7: Dos and Don'ts of PowerPoint

Now that you have determined the flow of your presentation, it is important to direct your attention to what you will present. PowerPoint is a software program that can enhance your teaching effectiveness. However, if your PowerPoint presentation is distracting, it could disengage your audience. There is no specific formula for creating an effective presentation using PowerPoint, because there are many different possibilities depending upon your style and what will be appropriate for your audience. However, to ensure that your audience stays engaged, consider the following steps or details as you begin preparing your presentation.

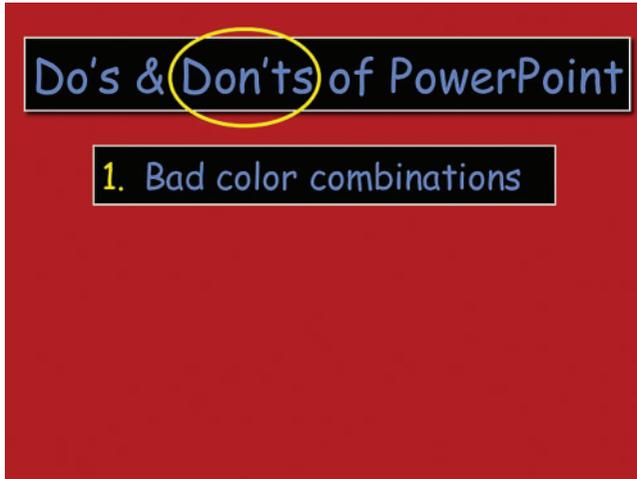
One of the first steps in creating your presentation is choosing color combinations. The colors you choose will either make your presentation pleasing or distracting for your audience. First of all, the background and font colors should contrast. Either a dark background with a light font, or a light background with a dark font provides the greatest contrast. This is important because your audience should not have to strain to see the text on the screen, but don't stop there (Figure 3a,b).

Contrasting colors are important, but only if the colors are pleasing to the eyes of the audience. Pleasing colors are those that compliment one another. For example, a dark blue background with a white or yellow font has good contrast and pleasing colors. However, a dark blue background with light blue font, does not offer enough contrast because the background and font are both shades of blue. In addition, red is rarely a good color choice (Figure 3a). It is neither light nor dark, so few colors contrast with red. It is also not an effective color because very few colors can be paired with red and still be pleasing. When choosing your color combinations, remember that contrasting colors plus pleasing colors will make effective combinations that will not disengage your audience (Figure 3b).

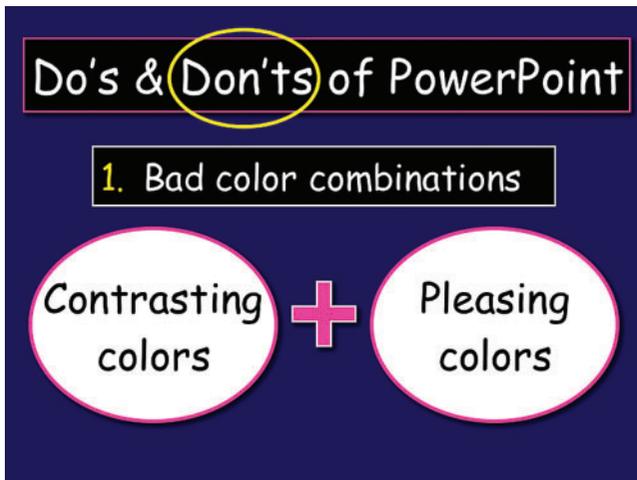
Color combinations should be pleasing to the audience.

Red: rarely a good color choice.

The second step in creating your PowerPoint presentation is to determine how you will include text. The most important point to remember, when placing text



(a)

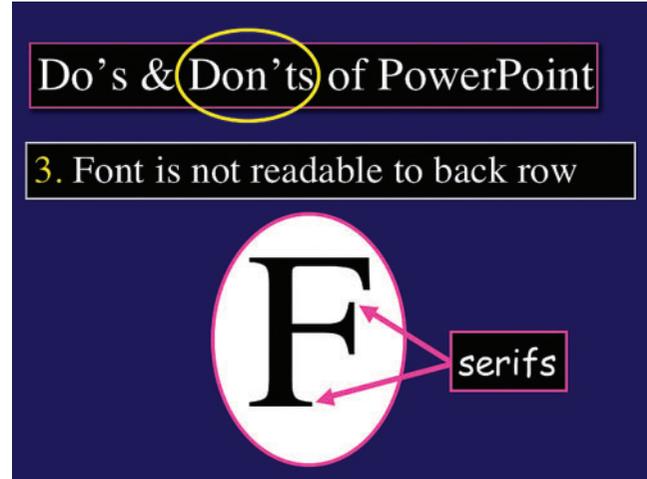


(b)

**Figure 3** (a,b) It is important to use PowerPoint effectively. Choosing the correct colors and fonts will help to keep your audience engaged. Contrasting colors should be used for background and font. Red is generally not a good background color. When selecting a font, avoid fonts that have serifs. These are difficult to read from the back of the room

on a slide, is that whatever you include must be readable to the last row of your audience. Keeping this in mind, you should choose text that is simple and free of serifs. Serifs are the parts of letters that gradually taper, rather than having clean angles. Although used in many fonts, serifs in letters make words more difficult to read (Figure 4). It is also important to refrain from using decorative, cursive or bolded fonts. These are not easy for the audience to read over the duration of your presentation. Do not use these fonts for accent either. Your audience will notice a change in font during your

The text must be readable to the last row of your audience.



**Figure 4** Remember to select contrasting and pleasing colors to enhance the effectiveness of your images

presentation and it may disengage them from what you are saying.

A common mistake made by many presenters is including too many lines of text on a slide:

- Too many lines of text disengages the audience from your message.
- As the audience tries to read the lines on the screen, they are not listening to your message.
- This often happens when presenters include entire paragraphs or long lists that use complete sentences. So when creating your presentation, consider using concise bulleted lists, with each bullet entering the slide on a mouse click.
- By using this method, you will direct your audience to read only what you are teaching at the time, but keep in mind that having an organized, bulleted list is only effective if you limit the number of lines that you include on the slide.
- Remember, your presentation must be readable to the back row. Generally, if you include more than six lines of text on a slide, your font is probably too small or the message is too crowded to be legible. Both of these mistakes are distracting and could disengage your audience.

Too many lines of text will disengage the audience.

Here is a good method of determining if your color selection, font and number of lines on a slide are appropriate. When your presentation is prepared, stand up and walk across the room. Scroll through your presentation and view it from a distance on your computer screen. If you can still read your slides easily without straining, chances are you have created an

effective PowerPoint presentation that will be legible to the back row and engage your entire audience.

A fourth tip to remember, when preparing your presentation, is to use consistent, simple animations and stay away from quick or wild transitions. You have worked diligently to create an engaging, organized presentation with a good flow. When you choose animations and transitions that are wild or inappropriate for your presentation, you will distract the audience from your message. Your objective is to keep the audience fully engaged and learning throughout your presentation, not to impress them with fancy or unusual animations or transitions. We find that box (in or out), wipe (right or left) and uncover (up or down) transitions and animations are the least distracting and most effective.

Use simple and consistent animations.

Here is one final point to remember. When presentations were delivered with slides, presenters had to create and assemble the slides ahead of time. Now that presentations are created using software such as PowerPoint, changes can be made up until the last moment before a presentation. This is a mistake. Too often, amateur presenters use valuable time tweaking the images and making last minute changes, instead of practicing and refining their delivery. Consider giving yourself a time limit and stop making any changes a day or two before the presentation. This will give you time to practice and memorize your images and transitions, which will make your delivery more effective and engaging.

## Guideline 8: Avoid Disengaging Your Audience

Even if your presentation is well planned and follows the principles that we have described in this article, it is still possible to disengage the audience during your one-hour presentation. Although there are several possible reasons for disengaging the audience, we will list five common mistakes that we have observed.

**The first mistake** that a presenter should avoid is standing in the dark during a presentation. In some venues it may be impossible to have your face illuminated during your presentation, but those situations are generally rare.

Although the audience will usually have their attention on the screen, they will occasionally look at you to see your facial expressions, which will help to keep them engaged and facilitate your ability to teach. If you are standing in the dark, and the

Don't stand in the dark during your presentation.

audience cannot see where your voice is coming from, it will tend to disengage them from you and your information. You and your message are the most important part of the presentation. The audience needs to see the expressions on your face as you deliver your presentation. Seeing your face will help to keep the audience engaged and improves the quality of your teaching. Standing in the dark is a common fault of the novice presenter who may be slightly nervous and not want to be in the spotlight. However, this tactic will reduce the impact of your message.

**The second mistake** that is common among novice presenters and definitely disengages the audience is looking at the screen instead of the audience. When you are presenting, you need to look at the audience and not the screen. Today, with PowerPoint, your computer can be directly in front of you or at least between you and the audience, so your attention can be focused on the audience, even though you use the computer to help guide you through the presentation.

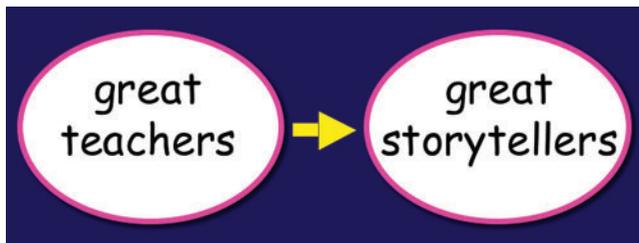
Look at the audience and not the screen.

If you look at the projection screen, the audience will become disengaged and your teaching message will become de-emphasized. Another advantage of looking at the audience is that you will be able to read in their eyes whether or not they understand your message. If the audience is missing your message, you will see it in their questioning or vacant look, and you can remedy this by re-emphasizing specific points in order to keep them engaged.

**A third mistake** that disengages an audience is leaving an image on the screen too long. As we had described in Part 1 of this series, based upon our calculations, most images will be on the screen for an average of about 20 seconds, with some less and some slightly more. However, if an image is left on the screen too long or for too little time, both can cause the audience to become disengaged. As a general guide, if an image is left on the screen for longer than 1 minute, your audience will probably lose interest and become disengaged. However, if images only remain on the screen for 1-2 seconds, the audience cannot process the information rapidly enough, and the audience also could become disengaged.

Don't leave an image on the screen too long or too little.

**A fourth mistake** that will disengage an audience is to show unnecessary images while describing a treatment sequence. This is another common mistake of the novice presenter. Many young presenters will show too many superfluous images that do not have any meaningful information. A good rule to remember is not to include



**Figure 5** Telling a story is an excellent way to re-engage your audience. After all, great teachers are usually great storytellers

any images that do not have a direct relationship with your message. If you have nothing meaningful to say about the image, do not include it. A typical comment used by a presenter who has superfluous images is, 'Here's a buccal view' or 'Here's an occlusal view', with no other meaningful information regarding that view or image. This tactic will disengage an audience quickly. Again, if there is no valuable teaching information to be gained from an image, eliminate that image from your presentation.

Only include images that are directly related to your message.

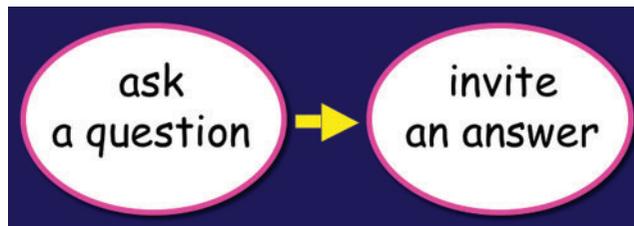
Finally, a fifth mistake that disengages an audience is to read your presentation. Reading of a manuscript may be appropriate for a foreign orthodontist who does not speak English proficiently, but for a person who does speak English, reading a presentation will quickly disengage the audience. First of all, a presenter cannot focus on the audience and see their reaction to the presentation, if his or her eyes are reading a manuscript. Secondly, some spontaneity and voice inflection is important in any presentation. This is difficult to do when reading a prepared script.

### Guideline 9: How to Re-engage an Audience

Usually, it is not necessary to re-engage an audience during a 1 hour presentation. Most audiences will stay alert if your presentation follows the guidelines that have been presented in this article. However, if your presentation is delivered after a meal, at a local dental society meeting, you may have difficulty keeping the audience alert if they have a full stomach. However, there are two effective methods for re-engaging the audience if you sense that they are losing their concentration.

A powerful way to re-engage your audience is to tell a story.

The first method of re-engaging the audience is to tell a story. After all, if you are giving a clinical presentation, you will most likely be using patient records to illustrate



**Figure 6** Another method of re-engaging your audience is to ask rhetorical questions. This tactic keeps an audience's attention. Remember when you ask a question you invite an answer in the mind of the listener

your points. Remember, every patient has a story. You can describe the situation at the consultation with the patient that led you to the chosen treatment plan. You could describe an incident at the chair during the treatment of the patient. You could describe a humorous incident involving your staff and the patient during the time of the patient's treatment. As soon as you begin to describe the event and tell the story, watch the audience's eyes. They will come alive. You will focus their attention back to the patient by placing them in the story that you are describing. They cannot help, but envision you in the situation you are describing, as long as you are vivid in your description. Before you know it, your audience is re-engaged. It's like magic. Every good teacher understands the power of storytelling as a tool to get their message across to an audience. After all, great teachers are usually great storytellers (Figure 5).

A second method for re-engaging an audience is to ask questions. Now, we are not suggesting that you pick on individuals in an audience and ask them a question directly. This is invasive and generally not appreciated by an audience. However, if you ask rhetorical questions and then pause, but also provide the answer, you will get the audience's attention. When the speaker asks a question, most individuals in the audience are expecting that they should know the answer. It quickly gets their attention. By providing the answer you pass along your material in an informative and non-threatening manner. Remember, when you ask a question, you invite an answer (Figure 6). This tactic is powerful in re-engaging an audience.

Asking rhetorical questions will re-engage your audience.

### Guideline 10: Have a Strong Finish

You are nearing the end of your presentation. When you finish, you must leave the audience with the impression that they have just participated in something

worthwhile. Therefore, create a strong finish to your presentation. Do not make the common mistakes that are typically made by the novice. First of all, don't simply stop abruptly at the end of a point or thought. The audience will not be prepared, and the end will be anticlimactic. Secondly, don't reshuffle your title. If you do this, the audience will sense the end, start to shuffle around, and some may get up and leave to be the first to the exit. You risk of losing their attention and whatever you say next will not be digested by the audience. Thirdly, don't ask if there are any questions. If there are none, you will wonder if your message was actually received by the audience. If there are questions, not all attendees may want to stay for questions and you lose the impact of your finish as people begin to straggle out of the venue. Finally, don't say 'and here is my last case'. This is a crowd killer. Usually, a portion of the audience will stand up at this point and head for the door. When this happens, it is disruptive to your final message and, after all, most speakers keep their best clinical cases or examples until the end. Therefore, you want the audience's complete attention as you wrap-up your presentation.

Your finish should be meaningful, memorable, and momentous.

There are three key words that you should remember when you are planning your finish—the three M's. First of all, make your finish:

- *Memorable*—you want the audience to remember your message and your finish should reflect its importance to the audience.
- *Meaningful*—it should have clinical impact to the practicing dentists in your audience, and you should remind them of the meaning.
- *Momentous*—create an image to use in closing that will be appropriate for the moment, the time of year, the nearest holiday, the insignia of the group to whom you are speaking, etc. This will help to cement the finish of your presentation.

## Summary

This two-part article has identified, illustrated and discussed 10 guidelines for creating an engaging presentation. After all, in order to teach a group of dentists, you must have their complete attention. You must keep them engaged. The 10 guidelines outlined in this two-part series should help you to create a meaningful, educational, and, most importantly, an engaging presentation. Good luck.