Technology has changed the way we live and offered us opportunities to enhance our teaching methods. Yet the human brain has not evolved at the same rate. Are we using the best approaches to engage the student and help with the learning process?

Whether you’re new to the classroom or experienced in teaching, this session is designed to help you create and modify visual presentations. We’ll identify and correct the most common mistakes instructors make when creating and using Power Point. Participants will create a Power Point presentation and design handouts that engage students and add to the learning objectives of their chosen subject.

**Learning Outcomes**
At the end of this presentation, participants should be able to:

- Identify the parts of the brain involved in learning a manual skill
- Explain how stress and emotions affect learning
- Recognize the role of technology in teaching
- Design lesson plans that fit your subject matter and student population
- Create presentations and activities that engage students

**Presented by:**
Kathy Paholsky, PhD, NCTMB
Owner, Optimum Health Center, LLC.

Massage Therapy Program Coordinator
Schoolcraft College, Radcliff
Garden City, MI 48135
kpaholsk@schoolcraft.edu

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Power Point Presentations
The use and abuse of slide shows in modern times.

Power Point History
Designed for the Mac in 1987 as a computer generated slide presentation. Sold to Microsoft. Windows-based version used in business, entertainment and education. Also abused in business, entertainment and education.

Presentation Software
Desktop for MAC and PC  Microsoft PPT, Keynote
Cloud-based  Prezi, Moodle

Application
Designed to tell a story, to illustrate the core message.
It is considered a graphics program, not word processing.
Slides are visual aids to help speaker connect to audience.
The Role of Technology in Teaching
If you’re up-to-date, you’re out-of-date.

Benefits of Technology
Allow students to take more responsibility for their own learning.
Easier access to current and detailed information.
Creativity in designing and using learning objects for both instructor and student.

Challenges of Technology
Easier and faster access to poor quality information.
Requires instructor to be more current and knowledgeable.

Are you using it effectively?
Fit the application: training, research, learning, obtaining material, testing
Bring people together or add to social isolation
Benefits the student’s skills, knowledge, time management
Engages the student
Better than a textbook?

What is your skill level in using and applying technology?
How is technology used/abused in your classroom?

If teaching involves three primary components: objectives, assessments and activities, how can technology be used to support and enhance?
(replace the term technology with ‘visual…auditory….tactile….kinesthetic’ presentations)
Adult Learners
Checklist for educators

✓ Understand the ‘why’.
  Solid foundation, basics, ready to learn

✓ Expand on different learning styles
  Use more than 1 style
  Repeat
  Identify the distractions

✓ Experience what they’re learning
  Are they practicing, playing
  Which directions do the discussions go?
  How real is the material?

✓ Encourage
  Excited - buy-in – struggling or pushing
  Self-assessments – can they tell how they’re doing
  How are they feeling about the material? about themselves?

✓ Butt out

We Learn Through
• Information processing
• Creating representations
• Inquiry based vs. instructor led
**How the Brain Learns**

*The connections in the brain that make learning possible.*

Mental decline

- most of it is *not* due to the steady death of nerve cells
- most of it is *due* to the thinning of dendrites.

Encourage the growth of dendrites by combining activities in new or unexpected ways, without overwhelming the student. Blend physical with emotional.

Cerebral cortex: physical

Limbic system: emotions

Make connections

How important is routine and structure in learning?

**Stress, Emotions and Learning**

*Learning involves more than the brain – include the mind and the spirit!*

The difference between worry, anxiety and stress – from *The Worry Solution* by Martin Rossman, M.D.

**Worry:** a type of thinking in which we turn…problems over… in our mind.

**Anxiety:** an uncomfortable feeling of apprehension or dread.

**Stress:** the physical response to danger that prepares the body for survival.

List some of the difficulties your students encounter that add to their worries, anxieties and stresses regarding their learning.

Identify ways that technology and changes in teaching methods might help.
Learning and Teaching
There is a disconnect between how we teach and how we learn.

The Cognitive Load Theory deals with the amount of information we can hold at any one time, and what we can do with that information.

If we imagine our brain as a small office that contains a desk and some filing cabinets, then different types of memory might be seen as:

- short term memory – information readily available for use (think ‘what’s available on the top of the desk’)
- working memory – information that has our attention (think ‘what has your attention on the top of the desk’)
- long term memory – information stored for use (think ‘what’s in your filing cabinets’)

When words are typed on a piece of paper or in a book, we are required to pay attention to a defined area. Our concentration might be on a single word or group of words. We first process the words and then expand to ideas.

When there are pictures or photos, we tend to work from the idea down to the details.

When words are written on a large surface such as a whiteboard or poster, or displayed on a screen, our attention is spread and tends to be more diffuse. That’s why highway billboards which have limited visual access do better with bigger pictures and less words. What can we see in 5-10 seconds?

When we look at the written word on paper, we tend to create images or pictures to go along with the words. Using a presentation method such as Power Point where text is displayed requires us to focus our attention to the words on the screen, transfer them to images – while listening to someone speaking words which may or may not match what we’re reading.

Where is your attention? What can you remember?

repeat, repeat, repeat, repeat…… in at least two different sensory methods.
Creating Visual Displays for Your Students

Employ the best solution(s) for visuals to help achieve the learning objectives.

Identify benefits and drawbacks of each of the following methods of display:

- flash cards
- flip charts
- handouts
- social networking sites
- webcast
- video
- props
- skits, performances
- portable devices (phone, tablet computers)
- stationary devices (desktops)
- slides

How are they similar/different in the ways our eyes travel through the material?

Which work better with

symbols... words... phrases...
sentences... paragraphs... pages...
images... photos... illustrations...
Using Auditory Aids
Learning through the ears

Which of these enhance our ability to learn? Create an activity for each.

- sounds
- music
- speech
- distraction noises
- talking

Using Tactile & Kinesthetic Activities
Learning through the body

Tactile learns through touch, especially sensitive individuals

- hands-on
- combine physical activities with emotional content

Kinesthetic learns through movement

- gross-motor skills: dancing, athletics
Using Power Point to Teach
Recognize how and when it can benefit

Problems with Power Point Presentations

- Boring
- Displaying a document instead of a story
- Distracting design and/or colors
- Overuse of animation
- Too long
- Too many bullet points
- Too many words instead of images

Changed from visual display to a ‘Slide-u-ment’, a document in slide form.

Benefits of Power Point Presentations

- Accessible – provide a copy to students
- Can tell a story or summarize a topic
- Customize to your lesson
- Easy to use, easy to make changes
- Fits all sizes and types of audiences
- Grab and hold attention
- Helps organize presentation and keeps you on track
- Integrate other visual and audio sources
- Interactive and engaging
- Saves you from memorizing

Slides are visual aids to help speaker connect to audience. Since the attention of the viewer is on the slides, the speaker is free to roam about the room.
Building Your Power Point Presentation
*From creation to delivery*

**Designing the Story**
Identify the core message
Move from a verbal expression to a visual expression.
Get away from the computer – start with a storyboard.

**Determining the Flow**
Use sticky notes to outline the story

**Creating the Slides**
Words? Images? Which delivers the message?
Use a template – limit the colors and styles to follow the theme.
Avoid dark backgrounds if audience is more than 25 feet away.

- **Text**
  - Choose a clean, easy to read font.
  - Size 22 to 30 points.
  - Don’t crowd words or phrases.

- **Graphics**
  - Use illustrations, pictures
  - Think ideas, diagrams, data, visuals

- **Expand**
  - Add video and audio to make the message clearer. (*Avoid cute*)

**Recheck**
Do your slides deliver your message?
Do they connect you to your audience?
Are you still needed?
Create Presentations and Activities that Engage Students

Edgar Dale’s Cone of Learning

People generally remember... (learning activities)
10% of what they read
20% of what they hear
30% of what they see
50% of what they see and hear
70% of what they say and write
90% of what they do.

People are able to... (learning outcomes)
Define
List
Describe
Explain
Demonstrate
Apply
Practice
Analyze
Define
Create
Evaluate

- Read
- Hear
- View Images
- Watch Videos
- Attend Exhibits/Sites
- Watch a Demonstration
- Participate in Hands-On-Workshops
- Design Collaborative Lessons
- Simulate, Model, or Experience a Lesson
- Design/Perform a Presentation - "Do the Real Thing"
Creating a Handout
Reinforce your message with a readable document

Identify the purpose of a handout?
- Cover any missed material
- Provide references
- Provide supportive data
- Reinforce the message
- Summarize the presentation

Don’t print out the slides!
- Can they be read in that small of a font?
- Is the text or background distracting?
- Will they make sense a week – a month – a year from now?

Make it user-friendly
- Leave room to take notes
- Limit the number of different fonts and colors used
- Make the topics easy to identity
- Make them interactive
- Number the pages

for more information and ideas, check out Bob Pike Group: www.bobpikegroup.com
What Did You Learn Today?
Where are your references for each of the following outcomes?

- Identify the parts of the brain involved in learning a manual skill
- Explain how stress and emotions affect learning
- Recognize the role of technology in teaching
- Design lesson plans that fit your subject matter and student population
- Create presentations and activities that engage students
Reference Books

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Change your Brain, Change Your Life, Daniel Amen M.D.


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Research-Based Strategies to Ignite Student Learning  Judy Willis, Association for
   Supervision & Curriculum Development, 2006

Slide:ology  Nancy Duarte, O’Reilly Media, Canada 2012

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WEBSITES:

Gazillions

Thank You!