

## Best PowerPoint practices for student learning – By Dr. Jim Roush

### Some learning facts:

- 1) Students have separate processing channels for visual and verbal material.
- 2) Students have limited capacity to pay attention to more than a few pieces of info in each “channel” at one time; visual or verbal.
- 3) Students best learn presented material when a) they pay attention, b) organize it themselves into a structure, and c) integrate with prior knowledge.

### Keys:

- 1) Narration with pictures is better than narration alone.
- 2) Limit text; students learn better when words are spoken rather than reading text.
- 3) Limit redundancy; learning is stronger from narration and graphics than from narration, graphs AND text.
- 4) Limit extraneous visual material.
- 5) We lose attention after 10 minutes in presentations and classes; design changes in your talks (ask questions, give a short quiz, tell a story).
- 6) Use the “So What?” principle; If you can’t answer the question “So What?” about lecture content, then it’s not important enough for inclusion. And remember “So What?” is from a student need-to-know perspective, not from a “This is Cool” perspective.

### In practice, maximize:

- 1) Bulleted lists (help students organize ideas)
- 2) Graphs (increase understanding of content)
- 3) Verbal explanations of pictures and graphs are better than text on the slide
- 4) Relevant pictures; make them full slide or at least very big.
- 5) Give powerpoint slides to students before class (allows focus on narration and integration with prior knowledge)
- 6) Use sample cues for emphasis; text size, bolding, italics, highlighted boxes
- 7) Create simple high-contrast slides; a lot has been said about dark or black text on white backgrounds, but it depends on the room. In a light room, show dark text on white backgrounds. In a darkened room show light text on dark backgrounds.

### In practice, minimize:

- 1) Clip art or other extraneous material
- 2) Animation or other movement
- 3) Music and other distractions
- 4) Templates with many colors

A great website with more tips and links to recommendations on effective presentations is here: <https://www.garreynolds.com/tips>

And, lest we forget, the Teaching Resources page of the K-State Teaching and Learning Center is a good resource: [https://www.k-state.edu/tlc/teaching\\_resources/Faculty\\_Resources.html](https://www.k-state.edu/tlc/teaching_resources/Faculty_Resources.html)