

THE SLIDE RULES

When and how to use slideware for teaching

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Better, more conscious use of slideware is one of the easiest improvements we can make to our teaching – and it is a change which is fulfilling in itself. The following rules are based on the existing research in slide use. The verdict of the literature is relatively unanimous, so making a list of rules for slide use in the classroom is practically sound. The rules are not cumulative and can be applied individually as it suits you.

Rule number one: Use pen and paper for planning

The biggest problem with a program like PowerPoint is the default settings. These make it easy to get started, but they also quickly lock the user into one pattern of use. We all know this pattern, and it is not compatible with contemporary theories of learning.



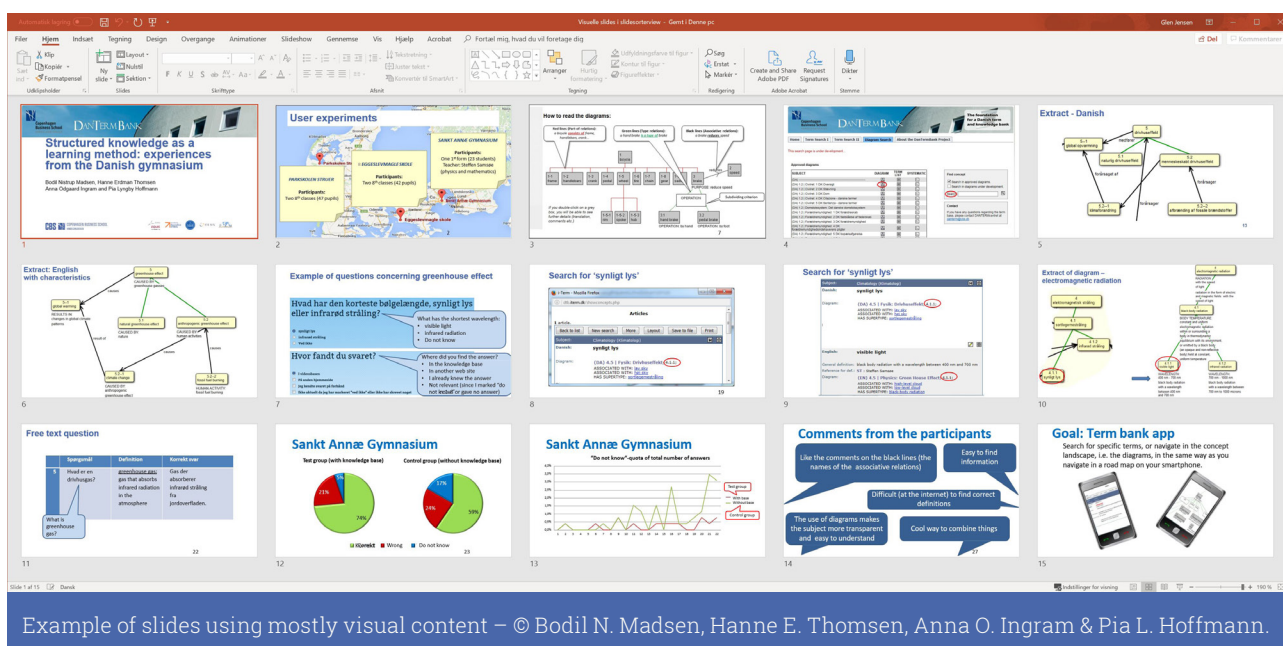
In order to break this default pattern, the first rule of slide use is to not open the program until you have planned your class/lecture and decided what needs visual support. Pen and paper work better for this planning phase in which you want to quickly brainstorm various ideas for your class/lecture and – at some point – which slides that could support your chosen activities/arguments.

Crucially this approach allows us to dispense with slides altogether if it turns out that they are not relevant to the learning activities or the argument we are planning.

Rule number two: Use visual content

The literature tells us that simultaneous visual and auditory input strengthens *understanding* and *retention*. However, we do not want people reading while listening since this will quickly cause information overload and force students to choose between the two channels. The solution is to use *images, charts, drawings, timelines* and other strictly visual content to substantiate and explain what we are talking about.

When we use these kinds of visuals, we also make it easier for ourselves as teachers to speak *with* rather than to our students engaging together in explaining, exploring and interpreting the visual content. In other words, it helps us teach in a way which prompts our students' interaction with the material, their teacher and each other. And this *is* compatible with current pedagogical theory.



Example of slides using mostly visual content – © Bodil N. Madsen, Hanne E. Thomsen, Anna O. Ingram & Pia L. Hoffmann.

Two questions usually crop up at this point. First question: *No text at all?* To be clear, text is fine as long as it's either instantly readable (short statements/assertions) or you give your students the required time to read it. Thus, headers such as “Danish students are better than their reputation” are fine and well – assuming that the visual content underneath supports, explains or illuminates that statement. Questions and quotes and other actual text are also perfectly fine as a starting point for learning activities – assuming that you give your students time to read through it. What we must avoid is putting our student in a dilemma between listening and reading.

Second question: *How can I remember what to say without my synoptic slides?* Hopefully you will find that it is rather easier to speak extemporaneously once you have some visual content to talk about. But more importantly, using visual content forces you to think about what you want your students to do with it; i.e. which learning activities you want to initiate. And so, perhaps you will find that you won't have to talk as much. Also, there is nothing wrong with having a sheet of paper with your cue words on it or using your slideware's note function.

A third question also suggests itself: *What if what I want to talk about doesn't lend itself to visualization?* Then you will often use key terminology as visual input. And this can often be arranged in a more visually meaningful way than just as a bulleted list. Maybe there's an antithetical relationship between terms. Or they belong in partly overlapping clusters. Or they fit in a matrix structure. Either way you can use your slideware to make figures that signify these relationships (or just draw on the board – see Rule 3). Thinking visually about terminology thus helps you and your students make more sense of the material and hopefully leads to greater engagement and understanding.

FUNCTIONS OF AND CONTENT FOR SLIDES

	Photo	Drawing	Graph/ Chart	Figure/ Model	Map/ Timeline	SRS/ Clickers*	'Quote'
Awake	✓	✓	✓	✓	✓	✓	
Explain	(✓)	✓	✓	✓	✓	✓	
Prove	✓	(✓)	✓		✓		✓
Create presence	✓	(✓)					
Involve	(✓)	(✓)	(✓)	(✓)	(✓)	✓	(✓)

*) CBS offers a license to a digital solution. Contact Teaching & Learning for more information.

Example of visual ordering of terminology – © Mads Højlyng

Rule number three: Use other visual media too

Slides have eclipsed former visual media in the classroom such as whiteboards and flip overs. However, these older media have their strengths and should not be dismissed off hand. They work especially well for *terminology* and *figures and models*. Their main advantage is that they allow for more co-creation in the classroom and that the content stays in view and can be referred or added to throughout the session (thus, one obvious use for them is to write the agenda for the lesson/lecture on).



However, whiteboards and flip overs are also media which most of us haven't learned to use properly. A course or some self-study will work wonders with minimal investment of time.

WHITEBOARD

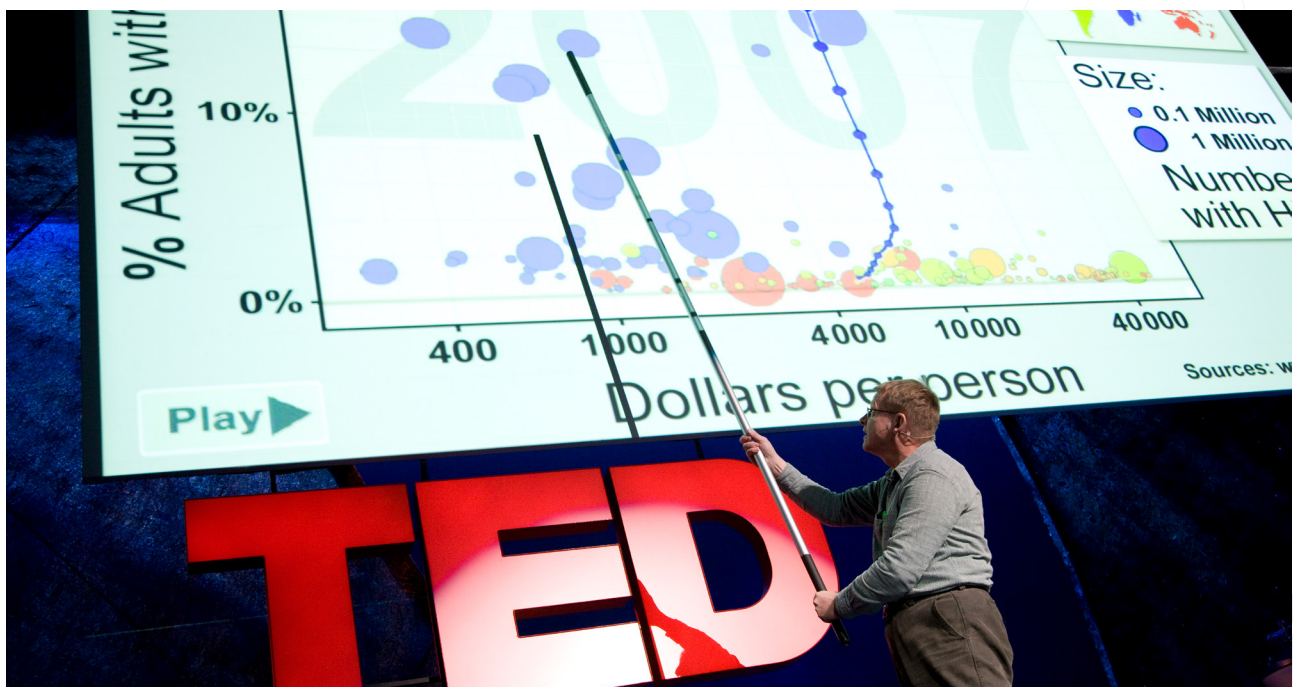
Teaching & Learning offer a course once a year in white board telling which helps you develop your drawing and writing skills. You can learn more about the course [here](#).

If you think writing on a whiteboard takes too long, consider arriving before class starts to draw your beautiful figures and models while your students find their seats. Also consider whether a slower pace is necessarily bad for learning. Whatever you do, don't rush your drawing and writing. If it looks a mess, your students won't take it seriously. If it looks good (i.e. clear), they make take a photo of it at the end of class.

Rule number four: Use your slides actively

The benefits of thinking more consciously about your slides and using more visual content can only be fully reaped if you present the slides in an equally conscious way in the classroom. This means pointing out, explaining, asking questions, maybe skipping back and forth between slides as new questions come up (to this end it is a good idea to always bring a printed overview of your slide deck).

It also means directing the student's gaze to whichever part of the slide you're talking about. To this end – contrary to popular belief – it can be fine to look at the slide yourself while talking about it. A proper laser pointer technique also comes in handy (upper arm tight to your torso; let the dot dwell). Even better is physically engaging with the slide – if you can reach the canvas.



Hans Rosling at TED2009, Session 5: Understand, Feb. 5, 2009, Long Beach, CA credit: TED / Asa Mathat

Just as importantly, active slide use means muting the slide when the present classroom activity or part of your lecture does not rely on visual input. This way you clearly signify what the students should and should not pay attention to. And when the slide comes on again, everyone knows something new is happening and attention is reignited.

HOT KEYS FOR POWERPOINT

When in presentation mode (F5), PowerPoint has a number of pre-programmed 'hot keys' which give you greater power over the presentation of the slides. Here are three important ones:

- To turn the screen black, press B (W turns it white). Press any key to return to normal view.
- To skip to a slide (further back or along), press the number of the slide and then 'enter'.
- To turn the cursor into a laser pointer dot, press Ctrl and the left mouse button simultaneously.

Rule number five: Use other programs to create handouts

Students have come to expect slide decks to be distributed electronically. Preferably before class. This is the death of teaching. Slides should support the learning activities taking place in the classroom and contribute to the spoken words of the lecturer. If they are to fulfill these functions they cannot also function as handouts for students.

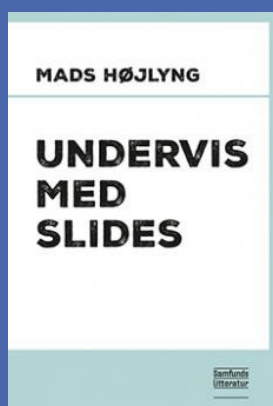
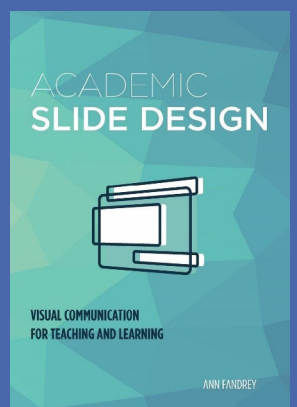
If you *do* want to distribute handouts, consider using a word processing program to create them. This kind of software is designed to make documents meant for reading on a screen, and you can include more detailed information than you would on a slide while at the same time presenting a more coherent argument. And you can of course still include your visual content.

However, one should still consider whether to distribute handouts *before* class. If we accept that a classroom is an oral/aural space, it becomes clear that too much focus on 'getting through' preplanned visual or written material might endanger the possibilities for interaction, adjustments and downright epiphanies that are the hallmarks of good teaching. A rule of thumb is that if you don't want your students to actively use the handout *during* class, you shouldn't upload it till *after* class.

ACADEMIC SLIDE DESIGN - VISUAL COMMUNICATION FOR TEACHING AND LEARNING.

A textbook by Ann Fandrey

The only book length study on the subject in English. Recommended further reading for those interested in (or challenged by) the graphic design aspects of slides – e.g. color schemes, white space and typography. Especially recommended for its chapter on intellectual property rights, good digital citizenry and further dissemination of slides. The CBS Library has a copy.



UNDERVIS MED SLIDES

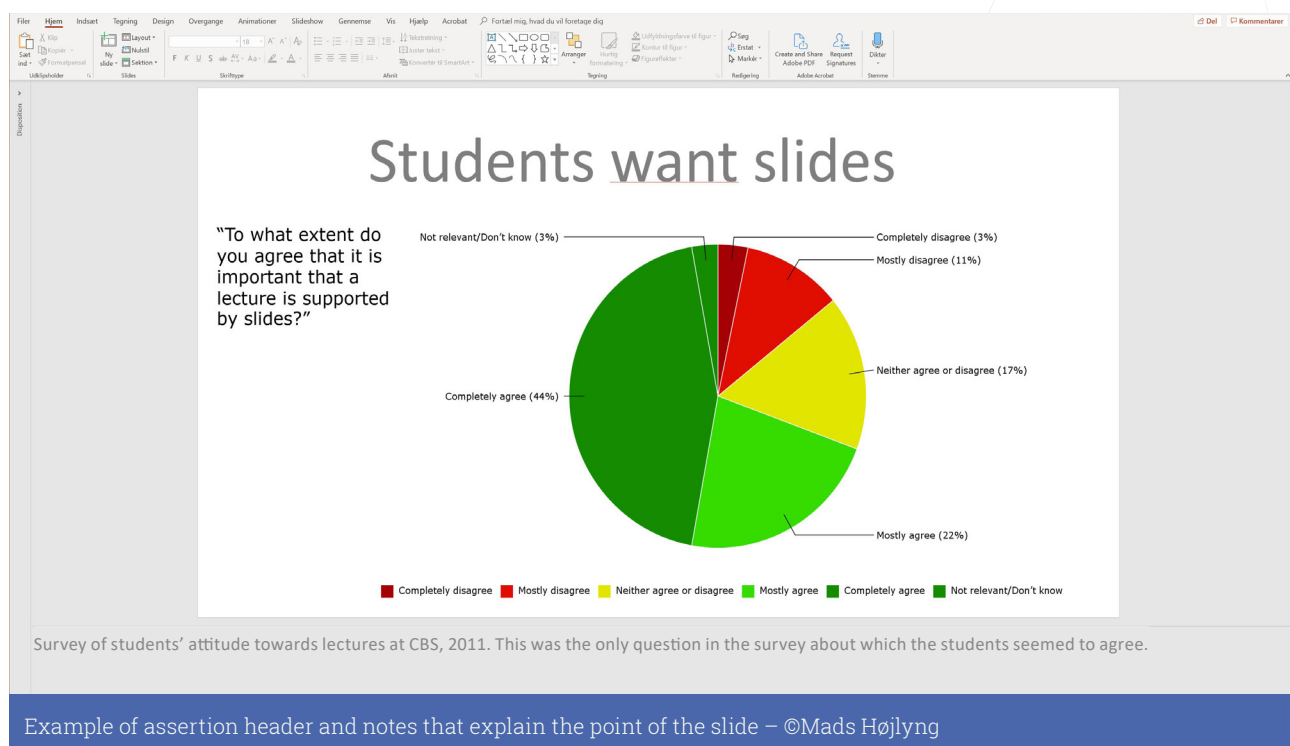
A textbook in Danish by Mads Højlyng

In this concise textbook you will find the theory behind teaching with slides as well as tools for thinking about content, design and presentation of slides in teaching contexts. Available from Samfundslitteratur in Danish only.

How to implement the rules in your preparations

The most common response to these pieces of advice is 'Yeah, but who has time for all that?'. To this it can be said that once learned the rules will allow you to make fewer but better slides. And hopefully you will quickly build an archive of good slides that can be used in various contexts. It is recommended that you put all slides with visual content in one big file from which you can then easily copy whichever ones are needed for a specific class or lecture. Such a file could also be shared on a common drive or even be an online document in e.g. Google Slides.

Sharing slides among colleagues is a must. This is a task for course coordinators who should facilitate slide sharing. Indeed, visual slides are easy to appropriate since they have to be interpreted orally anyway. Still, good headers and comments/key words in the comments field is a great service to your future self as well as colleagues.



And again, taking a course or doing some self-study in your preferred slideware works wonders. Once you know the basic functionalities, the task of designing slides that don't abide by the default template becomes much less daunting.

Finally, play with it! Teaching is a creative industry. Don't use the rules to knock yourself down. Use them to open up possibilities. Experiment. Steal other's brilliant ideas. Ask your students for suggestions. Do whatever it takes to appropriate these 'rules' in your teaching and you will find that teaching becomes more flowing and fun while your students hopefully become more enlightened.

SPOKEN POWERPOINT

A format where you only see the slide while hearing the voice of the lecturer. The student listens to the lecture alone and is free to pause and skip back and forth. These conditions create different opportunities. Teaching & Learning offers a workshop on how to use Spoken PowerPoint, screen recording, talkinghead etc in your teaching.

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