

Teaching with the Whiteboard

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Photo: Blake McCarthy

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A traditional whiteboard is a simple tool that offers multiple opportunities to enhance learning. Students learn best when the study material is presented in multiple modalities (e.g. Mayer, 2003), and the whiteboard can add textual, numerical or graphic representation to the content that is presented orally. The main uses can thus seem very basic and yet they are very effective at promoting deep learning:

- to note down key points
- to brainstorm ideas
- to demonstrate complex content (e.g. mathematical equations)
- to visualise interrelations between separate elements
- to interact with the content presented by someone else (e.g. highlight, question, correct)

Whiteboard vs PowerPoint

In a more technologically-advanced setup, and especially where teaching is offered fully online, PowerPoint presentations tend to take the place of a whiteboard. But can they serve as a full substitute? The studies that looked into the presentation of study materials with PowerPoint or a Whiteboard show that students have a clear preference for the continued use of whiteboards. Common themes in favour of “writing on the board” included (1) more active engagement, (2) more appropriate pace, and (3) presentation of less extraneous material (Armour C, Schneid SD, Brandl K., 2016).

TIP: Supplementing the use of PowerPoint with whiteboard notes has been shown to activate students even further (Meo, 2013).

Virtual whiteboard

There are different virtual whiteboard solutions that can be used for teaching in online learning environments - some are integrated into your main teaching platform while the others are dedicated external tools. Below you will find tips on how to effectively use virtual whiteboards of several types - the balance between the ease of use and the offered functionality will determine which one (if any at all) you choose to use in your teaching. In addition to the core whiteboard uses mentioned above, many virtual whiteboards offer such added functionality as:

- Manipulation of objects
- Annotation
- Collaboration

Technical tips

We all know that learning new tools takes time, and a virtual whiteboard is no exception. Allocate some time to trial the use of one or two of these whiteboard solutions to determine whether they meet your needs.

- See T&L Guides for information on the whiteboard integrations for [Zoom](#) and [MS Teams](#).
- As well as a basic Whiteboard integration that can be used in MS Teams sessions straight away, Office 365 offers a Whiteboard app with wider functionality. [This video](#) will explain the added functionality of the Whiteboard app and how to use it in Teams.
- It is also possible to use external whiteboard solutions, such as [Mural.com](#) - for an example of this whiteboard solution's use at CBS, watch this [video with Thomas Frandsen](#).
- Finally, it is also possible to connect an additional device that can serve as a drawing pad with a digital pen, e.g., an iPad or a Wacom. These are available for loan from Teaching & Learning (get in touch with [Mads Szylit Larsen](#) for more details).

NB If using a whiteboard for collaboration, remember to allocate specific parts of the board to individual users / groups. Simultaneous postings on the same spot can accidentally delete or cover the writing of the others.

References

Armour C, Schneid SD, Brandl K. (2016) Writing on the board as students' preferred teaching modality in a physiology course. *Adv Physiol Educ* 40: 229–233; doi:10.1152/advan.00130.2015.

Mayer, RE. (2003). The promise of multimedia learning: using the same instructional design methods across different media. *Learning and Instruction*, 13(2): 125-139.

[Meo, SA et al. \(2013\). Comparison of the Impact of PowerPoint and Chalkboard in Undergraduate Medical Teaching: An Evidence Based Study. Journal of the College of Physicians and Surgeons Pakistan. 23 \(1\): 47-50.](#)