#### SHOULD TECHNOLOGY BE ACCESSIBLE IN CLASS?

EVIDENCE SUGGESTS: TECHNOLOGY CAN HAVE POSITIVE IMPACTS IN CLASS

"Students will surf the internet instead of engaging with class."

**FACULTY** 



"I can quickly make legible, organized, and easily-editable notes."

**STUDENTS** 



## PROS

- Students can capture more material as most can type faster than they write.
- Students can collaborate more easily in and out of the classroom.
- Students can use notetakeing software to improve their retention by adapting them to learning needs.



- Verbatim typing can hinder students' information processing & retention.
- Not ideal for fast-paced and/or diagram-heavy lectures.
- Access to laptops can be distracting when attention is divided between class-related and non-class-related tasks.



- Most recent meta-analysis of research by Urry, et al (2021) shows neither laptop or handwritten notes are better for information retention.
- Effectiveness of technology in the classroom depends on the class (level, discipline) and instructor (speed, slides, class structure, etc.).





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#### SHOULD RECORDED LECTURES BE ACCESSIBLE ONLINE?

EVIDENCE SUGGESTS: ONLINE ACCESSIBILITY CAN HAVE POSITIVE IMPACTS IN CLASS

"Students might not attend class if they can access it online."

"If I need to miss class, I can easily review the material online."

**STUDENTS** 



**FACULTY** 



- Students can review, clarify, and deepen learning when used in addition to attendance.
- On-demand access to class.
- Increases inclusivity for students with attention disorders, learning disabilities, language barriers, barriers to attendance, etc.



- Students may be less likely to attend class with remote access to class happenings.
- Recordings can be open to technical difficulties.
- Less instructor-student interactions.
- Increase in procrastination and surface learning.



- When providing recorded lectures, attendance and instructor-student interactions are still crucial for student success.
- Instructors should address how to best use recordings, such as a revision aid or closed captioning options (Nordman et al, 2020).





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## SHOULD NOTES/SLIDES BE ACCESSIBLE TO STUDENTS?

EVIDENCE SUGGESTS: POSTING NOTES/SLIDES CAN HAVE POSITIVE IMPACTS IN CLASS

"Students might be less attentive in class if they don't take notes."

**FACULTY** 



"I can pay more attention to what's being said and review the notes later."

**STUDENTS** 



- Provides more time to think about and process class material.
- Provides a template to take better notes and take time to listen.
- Increases inclusivity for students with attention disorders, learning disabilities, language barriers, barriers to attendance, etc.



- Might lead to less attention and less information retention.
- Students given slides may do worse on exams (unmotivated to deep-dive into other readings or material).
- May lead to less and/or lower quality notetaking depending on class structure.



- Slides and notes can vary in clarity, complexity, and length so a blanket prescription is difficult to test.
- Some research indicates that limiting access to notes has no detrimental effects on learning and may prompt more attention and better notetaking (Grant et al, 2021).





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### SHOULD ASSESSMENTS BE UNTIMED/OPEN BOOK?

EVIDENCE SUGGESTS: ONLINE ACCESSIBILITY CAN HAVE POSITIVE IMPACTS IN CLASS

"Students won't memorize content if they can look up the answer."

**FACULTY** 



"My tests are an additional means of learning, not just for a grade."

**STUDENTS** 



- Some research shows untimed/open book tests are more valid and reliable measures of learning.
- Emphasizes meaningful questions.
- Increases inclusivity for students with attention disorders, learning disabilities, language barriers, barriers to attendance, etc.



- Students may perform better on closed-book tests than open-book tests.
- Students do not study as much or in the same way for open book tests as they do for closed book tests.
- The potential for academic integrity issues increases.



- Research shows that test format produces few differences in learning outcomes (Durning et al, 2016).
- Advantages of untimed/open book tests include higher order learning, equity, and reduced anxiety. Honor codes and instructions can reduce academic integrity issues.





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# REFERENCES

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