

ATTENTION

CIRTL: Improving Teaching with Psychology

ATTENTION IN THE CLASSROOM

- Attention in the classroom is often measured as mind wandering
 - Where more mind wandering relates to less attention to class material and worse performance in class
 - Mind wandering increases over time in class
 - Memory for lecture material decreases as mind wandering increases



MIND WANDERING AND EDUCATION: FROM THE CLASSROOM TO ONLINE LEARNING.

Measurement of Mind Wandering

- **Observational Approach**
 - Physical signs of inattention
 - e.g., eye gazes away from lecture
 - Hard to determine what constitutes mind wandering
- **Note Taking**
 - Typically declines as the class progresses (relates to mind wandering)
 - But, decline may not happen if the class is very interesting
- **Direct probes/quizzes**
 - Subjective reports of mind wandering
 - e.g., students report when they notice mind wandering
 - Students are often not aware that their mind is wandering
 - More objective measures
 - e.g., probes for mind wandering, random quizzes

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Mind Wandering

- Occurrence
 - ~30-40% of the time in lecture
 - Attention is best at the beginning of lecture and steadily declines with time
 - Max attention occurs within the first 10-15 minutes of class
 - And then declines steadily throughout lecture
 - Type of class activity
 - Lecture < Discussion < Problem Solving
 - More often when students are:
 - Bored, tired, stressed, or performing unpleasant activities
 - Less often when students are:
 - Happy, good at the current activity, liking the current activity, or think the current activity is important

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How to reduce mind wandering

- Shorten lecture times
 - Can easily be done in online classes (~10 minute video lectures)
- Intersperse lectures with other tasks to refocus attention
 - Discussions, problem solving activities, group activities, etc.
- Intermix quizzes throughout lectures
 - Students will pay closer attention if they know there will be a quiz
 - One study (Szpunar) found that interspersing quizzes throughout online lectures reduced mind wandering from 40% to 20%
 - These quizzes also improved grades and reduced test anxiety

IDEAS?