Synchronous vs. Asynchronous Learning: Strategies for Remote Environments

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Overview

- Distance Learning
- Synchronous vs Asynchronous vs Hybrid Learning
- Which Learning method should I adopt?
- Synchronous Distance Learning: The Pros
- Synchronous Distance Learning: The Cons
- Asynchronous Distance Learning: The Pros
- Asynchronous Distance Learning: The Cons
- Hybrid Distance Learning: Best of Both Worlds?
- Synchronous Distance Learning Strategies
- Asynchronous Distance Learning Strategies
- Takeaways

Distance Learning

- Learning that occurs in separate physical spaces
- Distance learning can take three forms: asynchronous, synchronous, or hybrid

Synchronous vs. Asynchronous vs. Hybrid Learning

- Synchronous: learning occurs at the same time
    - Takes place in real time with groups of learners
    - Can be done online via live webinars, instant messaging, and virtual classrooms
    - Collaborative and feedback-friendly
- Asynchronous: learning occurs at separate times
    - Learners complete courses in their own time regardless of location
    - Can be completed through online courses, email, blogs, pre-recorded videos or webinars, online discussion boards
    - A more learner-centric approach
- Hybrid: a combination of synchronous and asynchronous learning

Which learning method should I adopt?

- Short answer: It depends!
- There are pros and cons to both synchronous and asynchronous forms of distance learning
- The distance learning method you adopt should reflect the contextual nature of your class such as course topics, student profiles, etc.
- A hybrid course (combining both synchronous and asynchronous modes of learning) offers flexibility and combines the best aspects of both modes

Synchronous Distance Learning: The Pros

- Immediate personal engagement between students and instructors
- More responsive exchanges between students and instructors
- May lessen miscommunications or misunderstandings
- May lead to greater feelings of community
- May lessen feelings of isolation
- Feedback is immediate
- Learner questions can be answered instantly

Synchronous Distance Learning: The Pros (cont.)

- Survey of 1189 students at a Chinese university found the following themes regarding advantages of synchronous distance learning
  - Interaction
    - Students able to ask questions and receive feedback from instructor right away
    - Discussion and sharing ideas/resources with other students synchronously
  - Classroom Environment
    - Instructor supervised them to learn
    - They were able to search for additional resources on Internet when listening to lecture
    - No "bad seats"; no need to rush to class in order to take a good spot
  - Course Quality
    - Able to read slides and hear lecture clearly
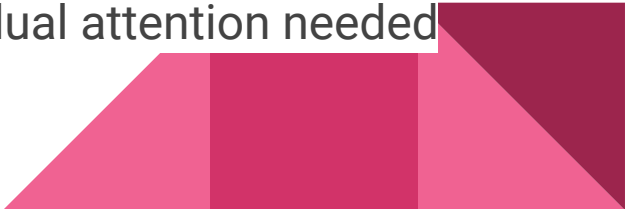   - Opportunity to access various learning resources

Synchronous Distance Learning: The Pros (cont.)

- Mixed methods experiment with 105 students with high-incidence disabilities found the following:
    - Social presence theory predicts that the immediacy of synchronous interactions should improve social presence, thereby increasing student engagement and performance
    - Students with disabilities expressed a preference for synchronous discussions
    - Greater comprehension was self-reported in the synchronous condition

Synchronous Distance Learning: The Cons

- Scheduling challenges due to students in different time zones
- Students challenged by working/balancing family responsibilities during lockdown/stay-at-home orders
- Old hardware and devices
- Unreliable/weak Wifi networks
- Students living and studying in shared/uncomfortable spaces
- Learners adhere to a specific training schedule and cannot access content where and when they like
- Some learners may feel they are not receiving individual attention needed
- Quality of sessions depends on instructor

Synchronous Distance Learning: The Cons (cont.)

- Survey of 1189 students at a Chinese university found the following themes regarding disadvantages of synchronous distance learning
  - Learning progress
    - Instructors talked too fast
    - Students unable to follow pace of learning
  - Distraction
    - Background noise from student microphones
    - Students not participating actively in class
    - Students discussing unrelated topics
  - Technology Issues
    - Slow internet speed
    - Exhaustion due to long time concentrating on electronic devices (aka "Zoom-zaustion")

Asynchronous Distance Learning: The Pros

- Temporal flexibility
- Learning experiences are more accessible to different students (inclusivity)
- Online archive of past materials develops for review and cross-checking
- Increased cognitive engagement
- More time for deliberation, reflection, and exploration of course material
- Cost effective: no travel, venue, or instructor costs
- Scales training to potentially thousands of learners at once

Asynchronous Distance Learning: The Pros (cont.)

- Survey of 1189 students at a Chinese university found the following themes regarding advantages of asynchronous distance learning
  - Self-control learning
    - Students learning anytime anywhere at home
    - Students arranging learning depending on their own schedule
    - Students watching course videos repeatedly
    - Students feeling more flexible and efficient
  - Self-directed learning
    - Students more concentrated on learning when studying by themselves
    - Deeper learning
    - Pausing lectures and searching resources to solve confusion
    - Access to rich learning materials and resources motivated their learning

Asynchronous Distance Learning: The Cons

- Students may feel less personally connected to their peers
- Students may feel distant from instructor/s
- Course material may be misunderstood or misconstrued without accompanying real-time interaction (e.g. Q&A, conversation)
- Learners need to be self-disciplined and motivated to complete their courses

Asynchronous Distance Learning: The Cons (cont.)

- Survey of 1189 students at a Chinese university found the following themes regarding disadvantages of asynchronous distance learning
  - Social isolation
    - Less classroom communication and discussion
    - Do no know learning progress of others
    - Feeling distance from others that demotivates learning
  - Interaction
    - Not able to ask instructor questions right away
    - Not fully understanding learning content through self-learning
  - Course Load
    - Too many assignments
    - Overwhelming learning content
  - Technology issues
    - Software familiarity, "Zoom-zaustion", slow internet

Asynchronous Distance Learning: The Cons (cont.)

- Dangers of transitioning **entire** curriculum to asynchronous platform
  - Some learners prefer traditional didactic curricula
  - Even when learners prefer asynchronous learning, they may not actually utilize the asynchronous resources in the manner educators intended

Hybrid Distance Learning: Best of Both Worlds?

- Survey of 164 students at Southern Cross University (Australia)
  - Significant relationship found between academic success and number of hours students participated in and interacted with the online learning system
  - Different combinations of attending synchronous virtual classes and watching recorded classes were not found to necessarily result in increased academic success
  - Inclusion of varied activities (aka hybrid learning) are recommended to provide students with multiple opportunities to participate and interact synchronously and/or asynchronously
- Instructors can incorporate strategies from both synchronous and asynchronous distance learning environments into their courses to harness the benefits of both methods
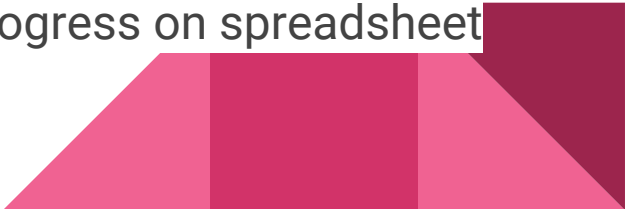
Hybrid Distance Learning (cont.)

- Determining the balance of learning methods based on context of course
- Many students in different time zones? Emphasize **asynchronous content**
- Students with disabilities? Emphasize **synchronous content**
- Students with technical challenges/slow internet? Emphasize **asynchronous content**
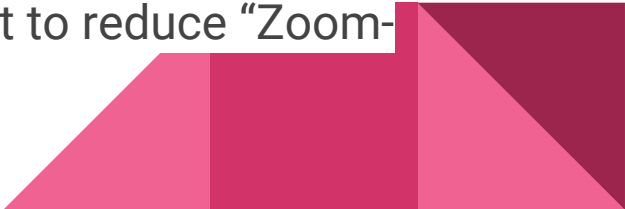- Seminar course or course with lots of group discussions? Emphasize **synchronous content**

Synchronous Distance Learning: Strategies

- Why? Keep students engaged!
- 1-3 hr/week of live interactive sessions that count toward grade
- Have students contact you if they can't attend and provide useful alternative
- Use homework/review questions to make discussion questions for this time
- Can include short lectures between interactive parts
- Poll students
- Zoom breakout groups - assigned ahead of time, maintain same groups each week to build community
- Students work on Google Sheet or Doc or indicate progress on spreadsheet
- Icebreakers for groups

Asynchronous Distance Learning: Strategies

- Why? Communicating most information asynchronously reduces "Zoom-zaustion" and technology/time zone inequities
- Record videos on Zoom, Youtube, or slides with audio
- Follow with short CCLE quiz for students to self-assess
- Share online study strategies
- Provide task checklists
- Survey students every 1-2 weeks
- Use free resources online (e.g. TED-Ed, Khan Academy, OER)
- Assign points for forum posts and/or responding to others
- Assign study groups and ask them to submit main points

Takeaways

- Distance learning can take three forms: asynchronous, synchronous, or hybrid
- There are pros and cons to both synchronous and asynchronous forms of distance learning
- A hybrid course (combining both synchronous and asynchronous modes of learning) offers flexibility and combines the best aspects of both modes
- Instructors are encouraged to emphasize the method of content that lends itself best to the contextual factors of their course
- Synchronous learning strategies are important to keep students engaged, while asynchronous learning strategies are important to reduce "Zoom-zaustion" and time zone/tech inequities

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