The Synchronous-Asynchronous Spectrum in Online Teaching

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The Synchronous-Asynchronous Spectrum in Online Teaching

By attending this webinar participants will gain further understanding on topics including:

• Pedagogy of preparing asynchronously delivered lectures.

• Software and hardware tools that can be used to prepare effective tutorial videos.

• Assessment and assurance of learning considerations in the online delivery of courses.
The Synchronous-Asynchronous Spectrum in Online Teaching

• The Synchronous-Asynchronous Spectrum in Online Teaching: An Overview
• Drawbacks of the Ends of the Spectrum
• Potential Benefits of Finding a Balance on the Synchronous-Asynchronous Spectrum
• Reaching a Balance Between the Synchronous End and the Asynchronous End of the Spectrum of Online Teaching Approaches: An Example
• Pedagogical and Assessment Considerations
• Tools
• Resources
• Takeaways
A Quick Poll

Have you used the flipped classroom model in your teaching?

• Yes
• No
A Quick Poll

The flipped classroom model has room for improvement.

• Strongly Disagree
• Disagree
• Have Not Formed an Opinion
• Agree
• Strongly Agree
The Synchronous-Asynchronous Spectrum in Online Teaching: An Overview
The Synchronous-Asynchronous Spectrum in Online Teaching: An Overview

Asynchronous
- Record a lecture.
- Post it online.
- Monitor access statistics.

Synchronous
- Conduct a lecture with synchronous audience participation.
Drawbacks of the Ends of the Spectrum

• It may be difficult to monitor if the students participate in a synchronously delivered online lecture with full attention during its duration.

• It may be difficult to monitor if the students view asynchronously delivered lectures with full attention during their duration.
Drawbacks of the Ends of the Spectrum

• **Asynchronously** delivered lectures may lack interactivity that typically allows the instructor in a classroom setting to repeat a concept if it is not grasped by students at the first pass.

• Pace of a **synchronous** lecture can be affected negatively by externalities such as a breakdown of technology or natural shortcomings of online tools that cannot fully substitute for the ease of face-to-face interaction.
Potential Benefits of Finding a Balance on the Synchronous-Asynchronous Spectrum

• The proposed approach uses online tutorial videos with embedded quizzes combined with separately delivered synchronous online lectures.
• It can find a balance on the synchronous-asynchronous spectrum in online teaching by resembling the traditional face-to-face setting in which instructors can monitor student learning through direct observation and embedded interactive communication.
Potential Benefits of Finding a Balance on the Synchronous-Asynchronous Spectrum

• Embedded quizzes in online tutorial videos facilitate adding assurance of learning capabilities and interactivity to online learning.

• Through thoughtful and purposeful design and curation, instructors can express their pedagogical philosophy with complete control in the content and flow of an asynchronously delivered tutorial video.

• Asynchronously delivered tutorial videos can have the capability to validate that students complete them with full engagement.
Reaching a **Balance** Between the Synchronous End and the Asynchronous End of the Spectrum of Online Teaching Approaches

- **Asynchronous**
  - Record a lecture.
  - Post it online.
  - Monitor access statistics.
  - Record a lecture.
  - Embed a quiz in it.
  - Post it online.
  - Monitor access statistics.
  - Evaluate learning outcomes using embedded quiz results.

- **Synchronous**
  - Conduct a lecture with synchronous audience participation.
  - Record it.
  - Post it online.
  - Monitor access statistics.
  - Post online quizzes separate from the recorded lecture.
  - Evaluate learning outcomes using separate quiz results.
  - Conduct a lecture with synchronous audience participation.
Reaching a **Balance** Between the Synchronous End and the Asynchronous End of the Spectrum of Online Teaching Approaches

Asynchronous

- Record a lecture.
- Post it online.
- Monitor access statistics.

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<td>Evaluate learning outcomes using embedded quiz results.</td>
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Combine this method with the synchronous method to complement it.

Synchronous

- Conduct a lecture with synchronous audience participation.
- Record it.
- Post it online.
- Monitor access statistics.
- Post online quizzes separate from the recorded lecture.
- Evaluate learning outcomes using separate quiz results.
Reaching a **Balance** Between the Synchronous End and the Asynchronous End of the Spectrum of Online Teaching Approaches: An Example

- Use Panopto to record a tutorial video.
- Embed a quiz in it using Panopto.
- Add a link to it in Blackboard.
- Students complete the tutorial and the quiz.
- Their quiz grades are automatically recorded in Blackboard gradebook.
### Pedagogical and Assessment Considerations: Flow

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<tr>
<td>Lesson 1.1: International Parity Conditions: An Overview (Quiz 1.1)</td>
<td>. Involves work on Problem Solving Assignment 1: International Parity Conditions . Requires prior completion of Lessons 1.1 - 1.3</td>
<td>Lesson 1.4: Relative Purchasing Power Parity (Quiz 1.4)</td>
<td>. Involves work on Case 1: International Parity Conditions . Requires prior completion of Lessons 1.1 - 1.5</td>
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<td>Lesson 1.2: Interest Rate Parity (Quiz 1.2)</td>
<td>Lesson 1.5: International Fisher Relation (Quiz 1.5)</td>
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Pedagogical and Assessment Considerations: Learning Goal Mapping

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**Synchronous Class**
# Pedagogical and Assessment Considerations: Assurance of Learning

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Collaboration Tools:
- Blackboard Collaborate Ultra, Zoom.
- Online Quiz Tools:
  - Blackboard.
- Learning Management System: Blackboard, etc.

Authoring Tools:
- Panopto, Adobe Captivate, etc.
- Learning Management System: Blackboard, etc.

Synchronous

Learning Management System: Blackboard, etc.

Authoring Tools: Panopto, Adobe Captivate, etc.

Asynchronous

Collaboration Tools: Blackboard Collaborate Ultra, Zoom.

Learning Management System: Blackboard, etc.
Tools

Hardware Tools
• 2-in-1 Laptop Computer
• Microsoft Surface Studio
• Graphic Drawing Tablet + Computer

Software Tools
• Video Authoring: Panopto, Adobe Captivate
• Online Lecturing: Blackboard Collaborate Ultra, Zoom
• Learning Management: Blackboard
Resources

**Video Authoring**
- Panopto (https://www.panopto.com/)

**Online Lecturing**
- Blackboard Collaborate Ultra (https://help.blackboard.com/Collaborate/Ultra)
- Zoom (https://zoom.us/)

**Learning Management**
- Blackboard (https://help.blackboard.com/Learn)
Resources

Other

• The SCORM (Sharable Content Object Reference Model) (https://adlnet.gov/projects/scorm/)
• Experience Application Programming Interface (xAPI) (https://adlnet.gov/projects/xapi/)
• Advanced Distributed Learning Initiative (https://adlnet.gov/)
• Edu App Center (https://www.eduappcenter.com/)
Takeaways

- Curation
- Sequencing
- Combination
- Ergonomics
- Interactivity
- Assessment
Regarding the Poll Questions

Classroom

Lecture

Homework

Traditional Classroom

Homework

Flipped Classroom

Lecture

Next-Level Flipped Classroom

Homework

Outside the Classroom

Homework

Lecture

Homework/Quiz