



The Synchronous-Asynchronous Spectrum in Online Teaching

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May 21, 2020



INTERNATIONAL BUSINESS PEDAGOGY WEBINAR



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

Face-to-Face



Asynchronous Online



Synchronous Online

The Synchronous-Asynchronous Spectrum in Online Teaching: An Overview

Asynchronous

Synchronous

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

- . 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.

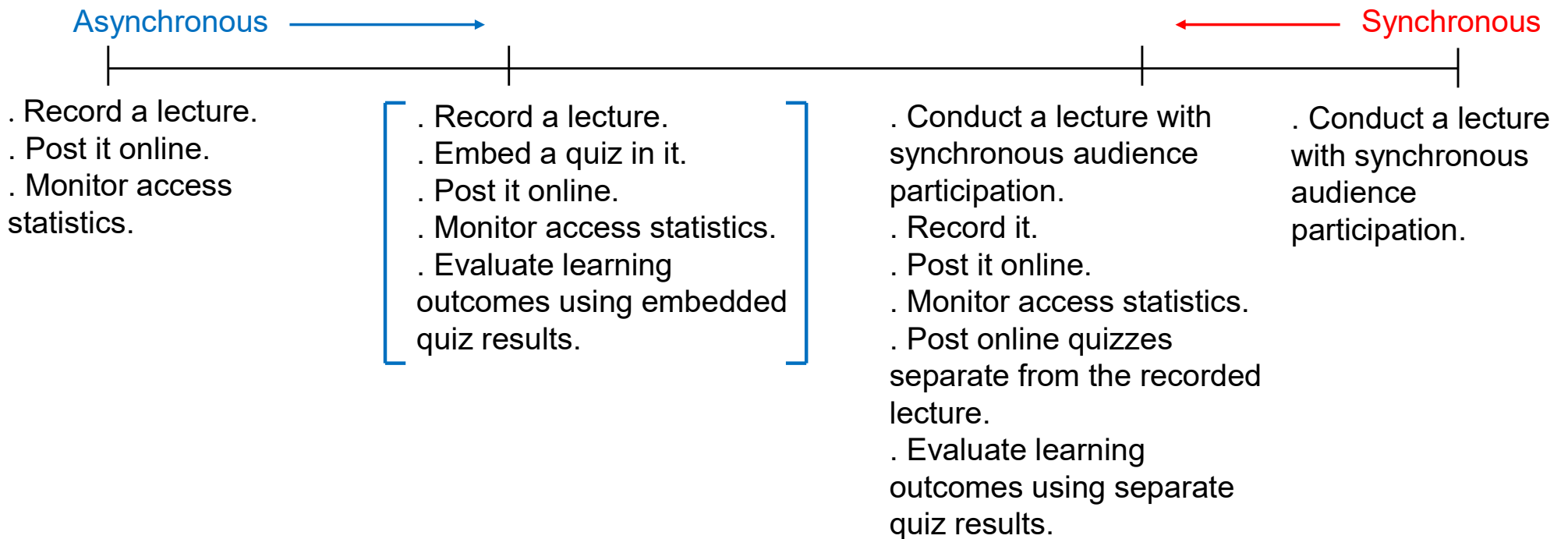
Potential Benefits of Finding a Balance on the Synchronous-Asynchronous Spectrum

- 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.

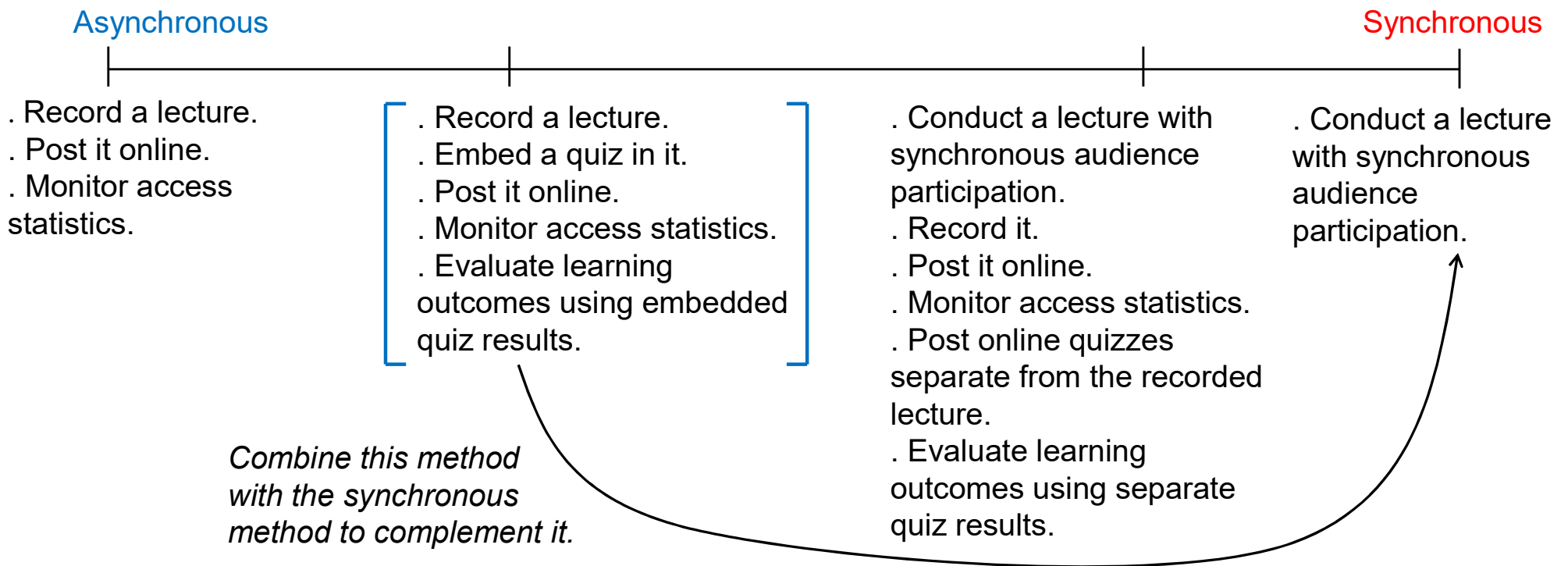
Potential Benefits of Finding a Balance on the Synchronous-Asynchronous Spectrum

- 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



Reaching a **Balance** Between the Synchronous End and the Asynchronous End of the Spectrum of Online Teaching Approaches



Reaching a **Balance** Between the Synchronous End and the Asynchronous End of the Spectrum of Online Teaching Approaches: An Example

Asynchronous

Synchronous

- . 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

Monday	Tuesday	Wednesday	Thursday	Friday
<p>Tutorial Video</p> <p>Lesson 1.1 International Parity Conditions: An Overview (Quiz 1.1)</p> <p>Tutorial Video</p> <p>Lesson 1.2. Interest Rate Parity (Quiz 1.2)</p> <p>Tutorial Video</p> <p>Lesson 1.3. Forward Rates as Predictors of Future Spot Rates (Quiz 1.3)</p>	<p>Synchronous Class</p> <p>. Involves work on Problem Solving Assignment 1: International Parity Conditions</p> <p>. Requires prior completion of Lessons 1.1 - 1.3</p>	<p>Tutorial Video</p> <p>Lesson 1.4. Relative Purchasing Power Parity (Quiz 1.4)</p> <p>Tutorial Video</p> <p>Lesson 1.5. International Fisher Relation (Quiz 1.5)</p> <p>Synchronous Class Recording</p>	<p>Synchronous Class</p> <p>. Involves work on Case 1: International Parity Conditions</p> <p>. Requires prior completion of Lessons 1.1 - 1.5</p>	<p>Tutorial Video</p> <p>Synchronous Class Recording</p>

Pedagogical and Assessment Considerations: Learning Goal Mapping

Monday	Tuesday	Wednesday	Thursday	Friday
<p>Tutorial Video</p> <ul style="list-style-type: none">. Remember. Understand. Apply	<p>Synchronous Class</p> <ul style="list-style-type: none">. Analyze. Evaluate. Create	<p>Tutorial Video</p> <ul style="list-style-type: none">. Remember. Understand. Apply	<p>Synchronous Class</p> <ul style="list-style-type: none">. Analyze. Evaluate. Create	<p>Tutorial Video</p> <ul style="list-style-type: none">. Remember. Understand. Apply

Pedagogical and Assessment Considerations: Assurance of Learning

Monday	Tuesday	Wednesday	Thursday	Friday
<p>Tutorial Video</p> <p>Assess lower-order learning goals</p>	<p>Synchronous Class</p> <p>Assess higher-order learning goals</p>	<p>Tutorial Video</p> <p>Assess lower-order learning goals</p>	<p>Synchronous Class</p> <p>Assess higher-order learning goals</p>	<p>Tutorial Video</p> <p>Assess lower-order learning goals</p>

Tools

Asynchronous

Synchronous

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

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

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

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/>)
- Adobe Captivate (<https://www.adobe.com/products/captivate.html>)

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/>)
- Learning Tools Interoperability (LTI) (<https://www.imsglobal.org/activity/learning-tools-interoperability>)
- Edu App Center (<https://www.eduappcenter.com/>)

Takeaways

- . Curation
- . Sequencing
- . Combination
- . Ergonomics
- . Interactivity
- . Assessment

Regarding the Poll Questions

Classroom

Outside the Classroom

