Facilitator Guide:

Synchronous and Asynchronous Tools

Table of Contents

[About the Guide 3](#_Toc392060840)

[Module Overview 4](#_Toc392060841)

[Lesson Plan 5](#_Toc392060842)

[Learning Outcomes 5](#_Toc392060843)

[Topics and Subtopics 5](#_Toc392060844)

[Teaching and Learning Activities (Online Delivery) 6](#_Toc392060845)

[Teaching and Learning Activities (Face-to-Face Delivery) 8](#_Toc392060846)

[Additional Resources and References 11](#_Toc392060847)

[Appendix A: Module Slides and Notes (Face-to-Face) 12](#_Toc392060848)

# 

About the Guide

This guide is meant for facilitators who will be leading the Synchronous and Asynchronous Tools module in online, face-to-face, or blended learning environments.

The guide includes suggested teaching and learning activities for both online and face-to-face delivery. The activities may be mixed or modified for a blended learning experience.

All activities and content in this module are customizable and may be modified for your purposes.

Module Overview

The goal of this module is for participants to distinguish between the appropriate uses of synchronous and asynchronous technological tools for learning activities and communication and the role of learning outcomes in informing such decisions.

Quite often when people think of online and blended learning, the first thing that comes to mind is the different tools that will be used. While it’s true that this method of education is reliant on a number of tools, placing the tools at the forefront could often lead to frustration. It is important to first develop clear outcomes and goals, and then find tools that will accommodate those objectives. The process of deciding on these tools, whether they be synchronous or asynchronous, will be outlined in this module. If you are delivering this module as part of a larger Blended and Online Teaching program, this module should be completed after the other, more pedagogically-oriented modules given that the selection of tools should be secondary to the concerns of teaching and learning.

Lesson Plan

Learning Outcomes

By the end of this module, participants should be able to:

* Evaluate a variety of educational technologies on the basis of hands-on experience, including experience with LMS, email, discussion boards, blogs, ePortfolio, wikis, social media, text chat, and web-conferencing;
* Apply one synchronous and one asynchronous tool in the design of a course or module;
* Explain choice of educational technology based on considerations of purpose of activity, learning outcomes, and learner characteristics in selection process.

Topics and Subtopics

* Defining Educational Technology Tools
  + What is Educational Technology?
  + Synchronous vs. Asynchronous Technologies
    - Purpose of each type and when to use
* Selecting Educational Technologies
  + SECTIONS Model for Selecting Technology
  + Learning Outcomes and Technology

Teaching and Learning Activities (Online Delivery)

**1.** **Content Delivery:** Participants view “Introduction”, which includes the module learning goals and outcomes (alternatively, you can post the module learning outcomes directly on the course site).

**Approximate run time:** 1 minute

**2.** **Discussion Board:** Create a discussion board called Defining Educational Technology Tools and include the following instructions:

1. Go online and find definitions of synchronous and asynchronous educational technologies.
2. Share your definitions on the discussion board and explain when you might use each type in a course that you would like to design for online or blended delivery. Think about what the most important consideration should be when choosing educational technology.

**3.** **Content Delivery:** Participants view Selecting Educational Technologies, which includes the following components:

1. Activity: Is the tool synchronous or asynchronous?
2. Reflection: There are many educational technologies to choose from, but how do you select the right tools for your course?
3. Video: Key Considerations for Selecting Educational Technologies
4. Reflection: What did you think about the factors mentioned in the video? Did you see similarities to your earlier answers? Were there factors mentioned that surprised you?
5. Slides: SECTIONS Model
6. Activity: List at least three educational technologies that are available at your institution. Choose one of these technologies and apply the SECTIONS Model to evaluate its appropriateness for your course.
7. Slides: Learning Outcomes and Technology
8. Activity: Choose a technological tool based on the learning outcome and supporting learning activity.
9. Videos: Classroom Use of Social Media (faculty and staff discuss their experiences using social media as a teaching and learning tool in their online or blended courses).

**Approximate run time:** 30 minutes

**4.** **Activity/Reflection:** Direct participants to videos, articles, and websites about synchronous and asynchronous technologies (see Additional Resources and References). Ask them to read prior to joining the synchronous session and think about how synchronous communication could be beneficial for their class.

Prepare different synchronous tools that are available at your institution (ie chat, virtual classroom) and give participants the option to join one (provide several timeslots). Debate the benefits and challenges of using synchronous tools. Ask participants to discuss how they want to use these tools for their courses and provide feedback on their ideas.

**5.** **Discussion Board:** Create a discussion board called Choosing Educational Technology and post the following instructions:

1. Share one learning outcome for a course or module you have taught or will teach in an online or blended environment. Based on what you’ve learned in this module (and on your own learning experiences) choose one synchronous tool and one asynchronous tool to design two learning activities that align with the learning outcome. Justify your choice.
2. Read other participant’s responses, provide feedback, and offer alternate tools that could be used to achieve the same learning outcome if applicable.

## Teaching and Learning Activities (Face-to-Face Delivery)

Approximate Duration: 3 hours with 15 min break

Recommended Materials:Flipchart or whiteboard, markers or whiteboard markers, laptop with projector and speakers

**1.** **Pre-session Activities:**

Prior to the session, we recommend that you ask participants to do the following:

1. Go online to find definitions of synchronous and asynchronous educational technologies.
2. Visit websites relating to SECTIONS analysis method of choosing technology (recommended links: <http://www.tonybates.ca/2011/06/13/models-for-selecting-and-using-technology-1-the-challenge/>  
   <http://wiki.ubc.ca/images/1/19/SECTIONS_Framework.pdf>
3. Prepare one or two learning outcomes for a course or module you would like to teach online and bring it to the session.

**2.** **Introduction to Module & Agenda (5 mins):**

Introduce yourself and explain your role at the school. You may edit slide to insert name, position, contact info. Lead participants through goal and learning outcomes of module. Provide an overview of how session will be divided.

**3. Activity: What are Synchronous and Asynchronous Tools? (10 – 15 mins)**

Ask participants to form pairs, discuss their definitions found in the pre-session activity, and reflect on when they might use a synchronous tool and an asynchronous tool in a course they are teaching.

Ask for volunteers to share their responses and lead a group discussion on what might be the most important consideration in choosing an educational technology.

**4.** **Content Delivery: Educational Technologies (25 mins)**

Show the video “Finding the Best Uses of New Instructional Technologies” (<http://www.youtube.com/watch?v=mEoVuubeDoM>)

Based on the video, discuss how participants currently choose and use classroom technologies. Do they prefer synchronous or asynchronous technologies? Which one suits their purposes better?

**Note:** The video has not been closed-captioned.

**5.** **Activity: Educational Technologies (10 – 15 mins)**

As a group, brainstorm a list of synchronous and asynchronous tools available. Refer to institutional tools available, as well as any additional tools you or the participants are aware of to fill in any gaps from the brainstorming exercise. (You may supplement the list from one of these documents: Teachers’ guides for use of educational technologies <http://www.educatorstechnology.com/p/teacher-guides.html> and online teaching tools for teachers <http://www.educatorstechnology.com/p/teacher-tools.html>).

**6.** **Content Delivery: Selecting Educational Technologies (7 mins)**

Show Selecting Educational Technologies, a video about key factors to consider when selecting educational technologies for courses. Recommended video: <https://mediaserver.carleton.ca/media/selecting-educational-technologies>

**7.** **Group Discussion:** **Selecting Educational Technologies (5 – 10 mins)**

What are some of the most important considerations in choosing technology for the classroom?

**8.** **Content Delivery: SECTIONS (20 mins)**

Give participants an overview of Bates and Pooles’ SECTIONS Framework for choosing educational technology. In advance, print up a copy of the following document and have participants take a few moments to look it over and discuss the examples provided in the document: <http://wiki.ubc.ca/images/1/19/SECTIONS_Framework.pdf>

**9.** **Activity: Applying SECTIONS (30 – 40 mins)**

Supply a tool that is readily available at your institution. Ask participants to individually apply the SECTIONS Framework using the forms from the document. After giving sufficient time, ask them to compare their findings with a partner. You may walk around the room answering questions and guiding participants accordingly.

Ask for volunteers to share their results with the larger group and try to tie it in with the later discussions about synchronous and asynchronous tools.

**10.** **Content Delivery: Learning Outcomes and Technology (10 mins)**

Discuss the constructive alignment model and how it can also help to select educational technologies for courses.

**11.** **Content Delivery: Popular Technology Tools (10 – 15 mins)**

Show one or both\* of the following videos (depending on time and participant’s interests) to demonstrate how instructors are using synchronous and asynchronous technologies as learning tools:

Social Media in Teaching and Learning: <https://mediaserver.carleton.ca/media/social-media-in-teaching-and-learning-2>

Online Classrooms and Synchronous Communication: <https://mediaserver.carleton.ca/media/online-classrooms-and-synchronous-communication>

Prior to playing the video, instruct participants to think about whether or not the learning tool would work for their course and support their course learning outcomes as they watch the video.

\* If you choose to show one video only, the other video should be recommended as an additional resource for after session viewing.

**12.** **Activity: Design a Learning Activity (20 mins)**

As a final activity, ask each participant to work with one learning outcome for a course or module they have taught or will teach (prompt them to retrieve the learning outcomes they developed as part of pre-session activity C).

Based on what they have learned thus far, and on their own learning experiences, they should choose (and justify their choice of) a synchronous or an asynchronous tool for designing a learning activity for the learning outcome.

Participants share responses. As each participant shares her/his response, others provide feedback and offer one alternate tool that could be used to achieve the same learning outcome. Each participant will ideally leave the session with two online activities for students in their course. One activity will be synchronous. The other will be asynchronous.

**Note:** Part of this activity can be done as homework if there is not enough time left in the session.

**20.** **Wrap-up and Questions (10 mins):**

Briefly summarize the main points and ask if participants have any final questions.

Additional Resources and References

Groom, M. (2013). History of Synchronous Technology in Distance Education (Prezi presentation). Retrieved from http://prezi.com/cqnppnik3kma/synchronous-distant-education/.

Higley, M. (2013). Benefits of Synchronous and Asynchronous eLearning. Retrieved from http://elearningindustry.com/benefits-of-synchronous-and-asynchronous-e-learning.

Hrastinski, S. (2008). Asynchronous and Synchronous EL-earning. EDUCAUSE Quarterly, 31 (4). Retrieved from http://www.educause.edu/ero/article/asynchronous-and-synchronous-e-learning.

Johns Hopkins University School of Education, Center for Technology in Education. (2010). Synchronous vs. Asynchronous Distance Learning Activities. Retrieved from http://olms.cte.jhu.edu/olms/data/resource/7643/Synchronous%20vs%20Asynchronous%20Learning%20Activities.pdf.

Karbach, M. (2014) 10 Great Screen Capture Web Tools for Students and Teachers. Retrieved from http://www.educatorstechnology.com/2014/01/10-great-screen-capture-web-tools-for.html.

Karbach, M. (n.d.) Teacher Guides. Retrieved from http://www.educatorstechnology.com/p/teacher-guides.html.

Karbach, M. (n.d.) Teacher Tools. Retrieved from http://www.educatorstechnology.com/p/teacher-tools.html.

Pearson Higher Education. (2012, December 6). Finding the best uses of new instructional technologies. Retrieved April 9, 2014, from http://www.youtube.com/watch?v=mEoVuubeDoM.

Slatinsky, D. (2013). Synchronous Vs. Asynchronous: How to Pick Your Training Delivery Method. Learning Solutions Magazine. Retrieved from http://www.learningsolutionsmag.com/articles/1197/synchronous-or-asynchronous-how-to-pick-your-training-delivery-method.

University of Toronto. (n.d.) An Overview of Synchronous and Asynchronous Communication Styles. Retrieved from http://ctl.utsc.utoronto.ca/technology/communication\_styles.

Wilson, S. (2009). SECTIONS Analysis of Online Education. Retrieved from http://www.scribd.com/doc/17467100/SECTIONS-Analysis- of-Online-Education.

Appendix A: Module Slides and Notes (Face-to-Face)

Slide 1



Slide 2



**Introduce yourself and explain your role at the school. You may edit slide to insert name, position, contact info, etc.**

**If this is the first of a series of modules, spend a little bit of time giving overview of the program. You may wish to insert a slide or two with that information.**

Slide 3



The goal of this module is for you to distinguish between the appropriate uses of synchronous and asynchronous technological tools for learning activities and communication, and to recognize the role of learning outcomes in informing such decisions.

**Introduce the intended learning outcomes for the module.**

Slide 4



**Provide an overview of how the session will be divided (if a different order makes more sense for your context, please feel free to reorder the slides and include additional materials).**

Slide 5



Slide 6



**Participants should have gone online prior to this session to look up definitions of synchronous and asynchronous educational technologies. Ask participants to form pairs and ask them to discuss the definitions they found online and reflect on when they might use each type of tool in their own course.**

Slide 7



**Show the video Finding the Best Uses of New Instructional Technologies (12:16 mins)** http://www.youtube.com/watch?v=mEoVuubeDoM**. Encourage participants to take notes during the presentation of the video.**

**Based on what was seen in the video, discuss how participants currently choose and use classroom technologies. Do they prefer synchronous or asynchronous technologies? Which one suits their purposes better?**

Slide 8



**As a group, brainstorm a list of synchronous and asynchronous tools available. Refer to institutional tools available, as well as any additional tools you or the participants are aware of to fill in any gaps from the brainstorming exercise.**

Slide 9



Slide 10



**Insert video of faculty and staff at post-secondary institutions talking about key factors to consider when selecting educational technologies for courses. See Facilitator Guide for link to recommended video.**

**Link: (**[**https://mediaserver.carleton.ca/media/selecting-educational-technologies**](https://mediaserver.carleton.ca/media/selecting-educational-technologies)**)**

Slide 11



**After viewing the video, ask participants what they feel are the most important considerations in choosing technology.**

Slide 12



**The information on this slide is based on the following: Bates, A. W., & Poole, G. (2003). A framework for selecting and using technology. In *Effective teaching with technology in higher education* (pp. 75-105). San Francisco: Jossey Bass. This article outlines the basic decision making process used in choosing what type of technology should be used and when in a course.**

**Print out http://wiki.ubc.ca/images/1/19/SECTIONS\_Framework.pdf for each participant and provide everyone with a copy before beginning to discuss SECTIONS (alternatively, you can display the web page on the projector and go over as a group, but it is recommended that each participant has their own copy).**

**Review the definition of SECTIONS and how participants can use it for their own courses. It will only be necessary to go over the examples provided in the document for now, later in the session you will ask participants to apply the framework based on one example provided to them.**

**Participants can answer the points on their own at a later date when they are deciding on tools for their own class and come back with any feedback.**

Now that you’ve taken some time to think about our own choices of educational technologies and heard some of the key factors that influence other people’s decisions, let’s go over a structured framework you can use to help you make these kinds of decisions.

**S - Students:** When you make decisions about bringing technology into your courses, try to ask yourself three questions. (1) Who are the students in this class? (2) What do I know about the students in this class? And (3) How appropriate is the technology for this group of students?

**E - Ease of Use and Reliability:** Make sure that you and the students in the class will be able to use the technology without major difficulties. If you are using a new technology that still has a lot of bugs to iron out or one that’s really hard to use, these kinds of problems will shift the focus in the class to the technology, so they’ll detract from the actual learning.

**C - Costs:** How much will the technology cost in overall terms and per user? Are there licensing fees you have to take into account? How much are these fees at the institutional level? Do students have to pay to get access to the technology? If so, you’ll want to find out if your institution has policies around students incurring costs.

**T - Teaching and learning:** What are the most important forms of learning that are needed for the class? What technology will best support these specific needs? For example, if you teach a class where learning how to promote new ideas or products via the World Wide Web is an important learning outcome, Twitter might be an ideal technology to bring in.

**I - Interactivity:** Think about the kinds of interactions that are most likely to support your learning outcomes. Does the technology you’re considering allow for the kind and degree of interactivity students need in this course?

**O - Organizational Issues:** Ask yourself these three questions: (1) What requirements for or barriers to technology use are there at your institution? How can you meet the requirements or remove the barriers? Are any organizational changes required before you can use the technology you have in mind?

**N - Novelty:** If the technology is new, how proven is it? Are you likely to encounter problems that will get in the way of students’ learning?

**S - Speed:** How quickly can you implement the technology you’re thinking about into your course? How quickly will you be able to make changes if they’re required as the course progresses?

Slide 13



**Supply a tool that is readily available at your institution. Ask participants to individually apply the SECTIONS framework using the forms from the document. After giving sufficient time (15-20 mins), ask them to compare their findings with a partner. You may walk around the room, answering questions and guiding participants accordingly. After sharing with their partners, ask for volunteers to share their results and try to tie it in with the later discussions about synchronous and asynchronous tools.**

Slide 14



The constructive alignment model can also help you to select educational technologies for your courses. Constructive alignment is an approach to course design that begins with the end result in mind. It is about making sure that all the different elements of your course or module (your learning outcomes, assessments, and teaching and learning activities) are intentionally aligned with each other.

Any educational technology you choose to use must support a teaching and learning activity or assessment that aligns with your learning outcomes.

Slide 15



Now that we’ve reviewed several synchronous and asynchronous tools, let’s have a look at how some instructors are using these tools in their classrooms.

**Show one or both\* of the following videos (depending on time and participant’s interests) to demonstrate how instructors are using synchronous and asynchronous technologies as learning tools (see the Facilitator Guide for links to videos):**

**Social Media in Teaching and Learning: (**[**https://mediaserver.carleton.ca/media/social-media-in-teaching-and-learning-2**](https://mediaserver.carleton.ca/media/social-media-in-teaching-and-learning-2)**)**

**Online Classrooms and Synchronous Communication: (**[**https://mediaserver.carleton.ca/media/online-classrooms-and-synchronous-communication**](https://mediaserver.carleton.ca/media/online-classrooms-and-synchronous-communication)**)**

**Prior to playing the video, instruct participants to think about whether or not the learning tool would work for their course and support their course learning outcomes as they watch the video.**

**\* If you choose to show one video only, the other video should be recommended as an additional resource for after session viewing.**

Slide 16



**As a final activity, each participant takes time to work with one learning outcome for a course or module they have taught or will teach. Based on what they have learned thus far, and on their own learning experiences, they choose (and justify their choice of) a synchronous and/or an asynchronous tool for designing a learning activity for the learning outcome.**

**If there is not enough time, this activity can be done as homework.**

Slide 17



**Provide a brief summary of what was covered during the session.**

Slide 18



**A brief thank you and ask for any questions or comments based on what was learned.**

Slide 19



Slide 20



Slide 21

