Online Course Design Workshop

Participant Manual

2018

About this Manual

This manual and accompanying resources are free to use by members of the ISW community. OnCDW is a supplement to ISW, but it is not supported or certified by the ISW network.

Author:	Andrew Marchand, 2018
Citation:	Marchand, A. (2018). *Online Instructional Skills Workshop*. Participant Manual. Thu Dau Mot and Tra Vinh, Vietnam: TDMU and TVU.
Illustrations:	Human illustrations adapted by author using graphics designed by Gan Khoon Lay (Creative Commons Attribution 3.0) (Lay, 2018)
Cover:	Front cover design adapted by author using template by New7ducks at Freepik.com. (https://www.freepik.com/free-vector/creative-annual-report-cover_1140111.htm)

About Instructional Skills Workshop

This workshop is modelled after the Instructional Skills Workshop, first developed in Canada in 1978 by Douglas Kerr and Diane Morrison. Since its creation, ISW and its accompanying resources have been supported by an international network of facilitators, who have introduced ISW to more than 30 countries. For more information, please visit http://iswnetwork.ca.

About Online Course Design Workshop

In this workshop, participants learn how to structure online lessons and course websites to maximize learner usability and success. The workshop focuses on such topics as course website structure, course and lesson outcomes, online learning activities, online assessment, supporting online learners, using learning management systems, and so on. Participants must design an online course with example lessons that include outcomes, tasks and assessments, and revise their course and lessons after receiving feedback from their peers.

- **Workshop design:** 3 or 4 non-consecutive days
- **Prerequisites:** ISW (advised), Course Design Workshop (advised)

Related Workshops

In addition to ISW, this workshop integrates with and relates to other workshops that might be offered by your school, including Course Design Workshop (CDW) and Online Instructional Skill Workshop (OnISW). To be the best online instructor and designer you can be, you might consider also taking these or other training opportunities. For a description of other training, see the Appendix.

Required Preparation

To get the most from this workshop, it is advised you bring a syllabus and/or plan for a course you've already taught or will teach, including several lessons and/or lectures that can be adapted for online instruction.

Facilitating Online Course Design Workshop

If you have completed ISW Network's Facilitator Development Workshop and wish to facilitate this workshop as additional curricula to ISW, please feel free to contact Andrew Marchand for digital copies of resources and training (if required). It is strongly advised that

in addition to completing FDW, you also have experience with using Learning Management Systems and teaching online.

In this Manual

Exercises

Tables

Figures

Starting the Reflective Process

In order to get the most from this workshop, you will be encouraged to set goals related to what you want to learn about online and blended design. In the first session, your goals may be quite specific (e.g., "I want to learn how to use Moodle tools") or they might be rather general (e.g., "I want to understand how to be a good blended instructor").

As the workshop continues, you will be asked to discuss what your goals are so all participants can help you to meet them. Goal setting can be done informally while thinking or speaking with others. However, many individuals find it useful to write down their goals.

Goals for the Workshop

You'll be asked on the first and last days of the workshop to briefly describe your learning goal(s). You can write them here:

Exercise 1: My Goals for the Workshop (Self-evaluation)

Example topics: Differentiating types of online instruction, motivating online learners, supplementing face-to-face classes with online tools, flipping classrooms, designing fully online lessons, assessing online learners, blending courses, finding online resources, using Learning Management Systems, teaching with synchronous video, etc.
•   •   •   •   •   •   •

My Online Designer's Toolbox

In addition to recording your goals, you'll also be encouraged to record the tools and techniques you find most useful as an online instructor and designer. Each technique or strategy is a tool you can use to be more professional and efficient, and as you learn to use more tools effectively, online instruction will become easier for you. In time, you'll have a toolbox filled with different techniques you can use to best support the varying needs of your online learners.

As you encounter new strategies in the workshop, you should return to this page to write down the ones that you want to practice and incorporate into your own classes. At the end of the workshop, this list of tools should help you remember what you've learned and what you hope to implement in your own practice as a teacher.

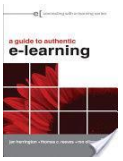
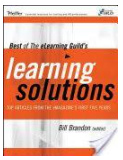
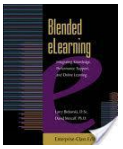
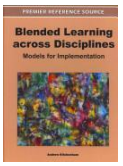
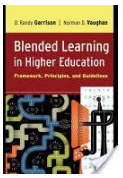
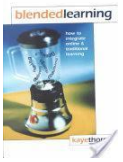
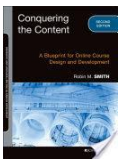
Exercise 2: My Favourite Online Instruction Tools and Strategies (Note-taking)

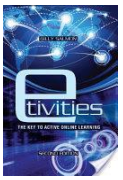
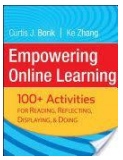
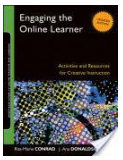
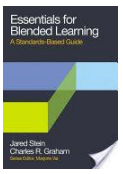
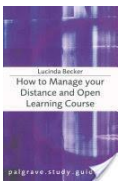
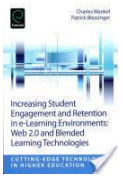
Important Online Design Terms and Theories
• •
• •
Favorite Sources of Free Online Curricula and Resources
• •
• •
Favorite LMS Elements and Tools
• •
• •
Favorite LMS Design Strategies
• •

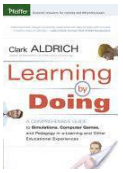
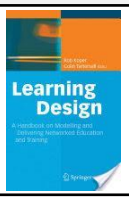
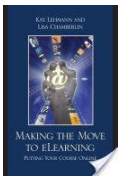
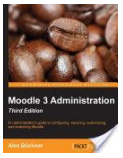
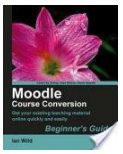
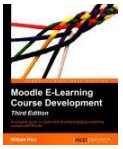
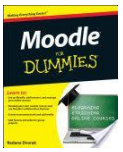
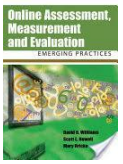
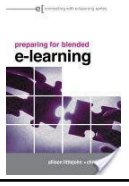
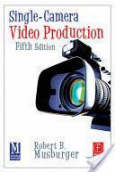
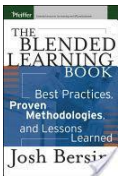
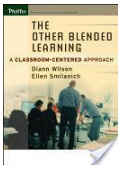
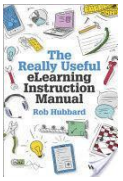
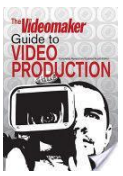
•	•
Favorite Online Activities (R2D2)	
•	•
•	•
Favorite Online Assessment Strategies	
•	•
•	•

Further Readings on Online Course Design

Exercise 3: Further Readings on Online Course Design (Research & Reading)

Books - *Ask your facilitator to see copies, if available*			
	A Guide to Authentic e-Learning (Herrington, Reeves, & Oliver, 2009)		Best of The eLearning Guild's Learning Solutions: Top Articles from the eMagazine's First Five Years (Brandon, 2008)
	Blended Elearning: Integrating Knowledge, Performance, Support, and Online Learning (Bielawski & Metcalf, 2003)		Blended Learning Across Disciplines: Models for Implementation (Kitchenham, 2011)
	Blended Learning in Higher Education: Framework, Principles, and Guidelines (Garrison & Vaughan, 2011)		Blended Learning: How to Integrate Online & Traditional Learning (Thorne, 2003)
	Conquering the Content: A Blueprint for Online Course Design and Development (Smith, 2014)		Creating Online Courses and Orientations: A Survival Guide (Bacon & Bagwell, 2005)

		E-tivities: The Key to Active Online Learning (Salmon, 2013)		Elearning: The Key Concepts (Mason & Rennie, 2006)
		Empowering Online Learning: 100+ Activities for Reading, Reflecting, Displaying, and Doing (Bonk & Zhang, 2009)		Engaging the Online Learner: Activities and Resources for Creative Instruction (Conrad & Donaldson, 2011)
		Essentials for Blended Learning: A Standards-Based Guide (Stein & Graham, 2014)		Essentials of Online Course Design: A Standards-Based Guide (Vai & Sosulski, 2015)
		How to Manage Your Distance and Open Learning Course (Becker, 2004)		Increasing Student Engagement and Retention in E-Learning Environments: Web 2.0 and Blended Learning Technologies (Wankel & Blessinger, 2013)

Books - *Ask your facilitator to see copies, if available*			
	Learning by Doing: A Comprehensive Guide to Simulations, Computer Games, and Pedagogy in e-Learning and Other Educational Experiences (Aldrich, 2008)		Learning Design: A Handbook on Modelling and Delivering Networked Education and Training (Koper & Tattersall, 2005)
	Learning Network Services for Professional Development (Koper, 2009)		Making the Move to eLearning: Putting Your Course Online (Lehmann & Chamberlin, 2009)
	Mobile Learning: A Handbook for Educators and Trainers (Traxler & Kukulska-Hulme, 2007)		Moodle 3 Administration (Büchner, 2016)
	Moodle Course Conversion: Beginner's Guide (Wild, 2008)		Moodle E-Learning Course Development: a Complete Guide to Create and Develop Engaging e-Learning Courses with Moodle (Rice, 2015)
	Moodle For Dummies (Dvorak, 2011)		Online Assessment, Measurement, and Evaluation: Emerging Practices (Williams, Hricko, & Howell, 2006)
	Preparing for Blended E-learning (Littlejohn & Pegler, 2007)		Single-camera Video Production (Musburger, 2010)
	The Blended Learning Book: Best Practices, Proven Methodologies, and Lessons Learned (Bersin, 2004)		The Online Learning Idea Book: 95 Proven Ways to Enhance Technology-Based and Blended Learning (Shank, 2011)
	The Other Blended Learning: A Classroom-Centered Approach (Wilson & Smilanich, 2005)		The Really Useful eLearning Instruction Manual: Your toolkit for putting elearning into practice (Hubbard, 2013)
	The Videomaker Guide to Video Production (Videomaker, 2013)		User-Centered Design of Online Learning Communities (Lambropoulos, 2006)

About Online Course Design Workshop

The Online Course Design Workshop (OnCDW) is an adaptation of the Instructional Skills Workshop (ISW). ISW is a highly effective training workshop that balances instructional theory and practice so that even the most experienced teachers can develop and grow through the course of the workshop. ISW is an internationally recognized workshop that is offered at universities and colleges across Canada, the United States, and numerous other countries worldwide. The ISW network (http://www.iswnetwork.ca) supports facilitators of Instructional Skills Workshop and Facilitator Development Workshop (FDW). This workshop is not supported or certified by the network, although your facilitators have completed FDW to help them facilitate OnCDW.

The difference between this workshop and ISW is that ISW concentrates on classroom instruction while OnCDW concentrates on online and blended LMS design. Although OnCDW integrates ISW theory like the BOPPPS and CARD lesson planning models, it focuses much more on designing online and blended lessons that meet the needs of your learners. So by the end of the workshop, you'll have the opportunity to create and peer receive feedback on:

- **Day 2:** A draft course site that includes an introductory section that makes the site's organization clear and accessible to your learners;
- **Day 3:** Two draft online lessons that include a bridge, outcomes, participatory tasks, post-assessment and summary; and
- **Day 4:** If in a four-day OnCDW, a blended-learning lesson plan that includes learning-by-doing tasks.

OnCDW's Format

OnCDW follows one of two formats, depending on the focus of the workshop:

- A 3-day, *~21-hour format* that focuses on online design; or
- A 4-day, ~28-hour format that focuses on online and blended design.

OnCDW is usually run with six or 12 participants and one or two facilitators per workshop, where participants review various strategies for online course and lesson design while developing a draft course website using a Learning Management System (LMS) like Moodle.

Within the workshop, participants are asked to experiment with a six-step lesson model taught in ISW that uses the acronym BOPPPS. It is a highly participatory approach to improving online design skills where participants get to practice their learning design skills and receive feedback from their peers. The heart of the OnCDW is the feedback you'll receive from other participants as you develop your online course and lessons. All participants practice giving and receiving constructive feedback both verbally and in writing.

In addition to getting feedback on your online learning design, content-oriented theme sessions are offered throughout the workshop to provide participants with information and ideas about how to design and instruct in online and blended environments. These theme sessions might include such topics as finding online content, planning online activities, conducting online assessment, using your school's LMS (e.g. Moodle), designing for teacher,

social, and cognitive presence, and so on. If your workshop also focuses on blended learning, other theme sessions might include facilitating in-class activities, planning learning-by-doing assignments, using case-studies, and so on.

An important aspect of the workshop is team-building. This means that OnISW relies on an intensive and supportive learning environment where all participants must work collaboratively in a group. *It is very important, therefore, that each participant attend the workshop in its entirety and complete learning tasks required for full participation.* In rare occasions where participants miss more than 10% of the workshop, facilitators reserve the right to withhold workshop certification. You should therefore communicate with your facilitators if you will be late or miss any part of the workshop.

OnCDW's Goals

There are many general goals for participants of OnCDW. As a participant of OnCDW, you will:

- **Creating online lessons:** Use the POTRR lesson planning model to develop clear and pedagogically-strong online lessons;
- **Design authentic online assessments:** Create online tasks and assessments that align with outcomes that follow Bloom's Taxonomy;
- **Using online and educational technologies:** Work closely with peers to practice online design tools and techniques, including using an LMS and manipulating digital files and media;
- **Critiquing LMS design:** Evaluate online course websites and lessons for their pedagogical strengths and weaknesses; and
- **Building community:** Share instruction ideas and strategies and give and receive constructive feedback with colleagues.

If this OnCDW includes a fourth day that focuses on blended learning, you will also:

- **Supplementing and blending F2F instruction:** Plan face-to-face lessons that integrate with and build on online lessons; and
- **Flipping instruction for learning-by-doing:** Practice using learning-by-doing strategies to flip your face-to-face classroom by designing lessons that make learners practice and apply instructional content they learn online.

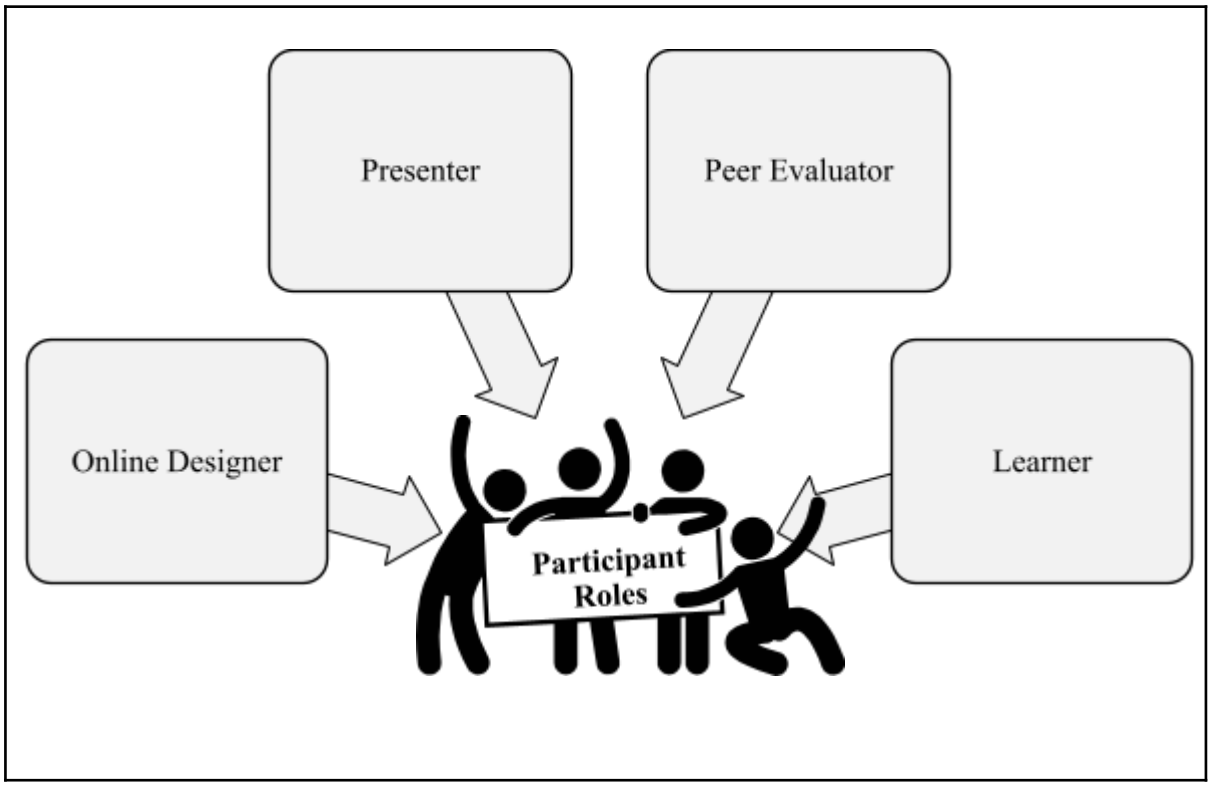
Participant Roles and Activities

In OnCDW, each participant takes on the roles of both designer and peer evaluator. Each participant will be given time to present their online design products each day, for example a draft online lesson, course introduction, or blended lesson plan. When someone else in the group is presenting their work, the other participants act as supportive peer evaluators.

Immediately following each presentation, audience members give the presenter feedback on their learning design choices. This peer feedback takes two forms: written feedback and verbal feedback. During the workshop, participants are asked to engage actively as peer evaluators, and to give and receive feedback that is honest, constructive, and focused on learning design choices that can be changed and improved.

Besides giving you several opportunities to practice using online technologies and techniques, OnCDW is an excellent opportunity to view others' learning design styles and strategies. When you design your online and/or blended lessons, it is an excellent time to experiment and receive feedback on different lesson planning and instructional strategies that you may not normally use. It is also a time to practice reflecting on your learning design skills to determine how you can improve in the future as an online or blended instructor.

Figure 1: Participant Roles During the Workshop



Participant Assignments

This workshop requires you to create authentic and practical online lessons and a draft course site that you can use right away or when teaching in the future. This means that in addition to attending the workshop, you'll also need to spend time at home designing the following:

Table 1: Workshop Assignments for OnCDW

Due on Day 2	
1st Draft of Site	A draft of your entire course site that modifies a provided course template to include "above-the-fold' introductory elements
POTRR Lesson	An instructionally aligned lessons that includes a clear purpose statement, outcomes that follow Bloom's Taxonomy, methodical and detailed task descriptions that target active learning, a review of key concepts and skills, as well as appropriate resources and LMS tools to support learners as they complete lesson tasks and lesson-level assessments
Due on Day 3	
2nd Draft of Site	A second draft of your entire course site which integrates feedback on your previous draft and includes further elements like pre-, mid- and post-course feedback surveys, course-level assessments, and a course summary section
2nd POTRR Lesson	A second instructionally aligned lessons following the criteria outlined above
Due on Day 4	***(Day 4 optional; participants choose ONE from below)***
A Flipped Lesson	An instructionally aligned face-to-face lesson that focuses on in-class learning-by-doing, including a pre-lesson in the LMS to teach threshold curricula and a post-lesson to follow-up on in-class activities and assessments
A Blended Lesson	An instructionally aligned face-to-face lesson plan using BOPPPS or CARD that links directly to and extends an online lesson designed on a previous day.

Although creating these items may sound daunting for a three- or four-day workshop, your OnCDW *facilitators will provide templates, examples and support* when you are tasked with completing them. Creating these products is a mandatory part of the workshop, as you'll be expected to present them to your colleagues each day to receive feedback and make improvements. These products were incorporated into OnCDW to help you demonstrate to learners, administrators and colleagues that your online course and assessments:

- **Are Instructionally Aligned:** Your course and its lessons and assessments align with program-level competencies and other courses in your program;
- **Are Pedagogically Strong:** You are carefully and deliberately choosing teaching methods and learning activities that support deep learning, for example through learning by doing tasks that result in products that are authentic to the workforce and/or meaningful to learners;
- **Focus on the End User:** You focus on the needs of learners by gathering and using their feedback about their motivations for learning, life goals, learning preferences, and reactions to your course design, assessments and instructional approaches; and
- **Meet International Standards:** Your course design, assessments and instruction clearly follow the standards of international organizations like CDIO and AUN-QA.

After completing OnCDW and designing these products, you'll know how to document and communicate your online design decisions to others. You'll also have designed or redesigned

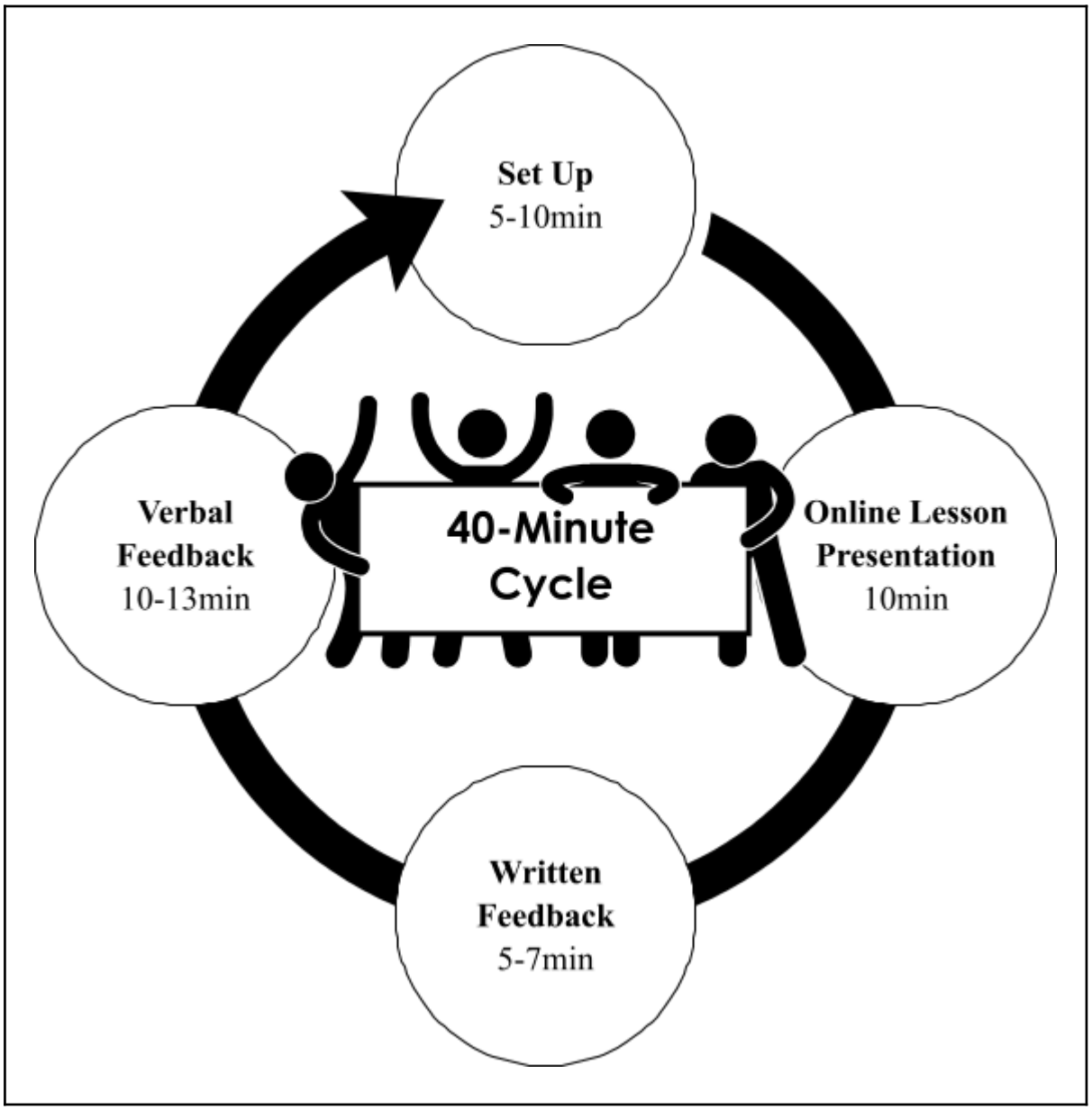
different online products that you can perfect and use right away. Given these reasons, hopefully you can see that completing these assignments is an effective use of your time.

The OnCDW Presentation Cycle

As a participant, you will design two online lessons that you will present for 10 minutes during OnCDW. If this is the extended workshop that incorporates blended instruction, you will also design and present a lesson plan that incorporates a learning-by-doing assignment.

Your 10-minute presentation will include time for setting up and receiving feedback from peers, giving you a total of 30-40 minutes for each of your feedback cycles, depending on the number of participants. Your peers will also receive 30-40 minutes for their presentations, so the OnCDW cycle will repeat several times beginning on the second day of the workshop.

Figure 2: The OnISW Presentation Cycle



The 10-Minute Presentation

During the two or three short learning object presentations, you'll want to make sure you incorporate different instructional elements that you'll learn more about in the following sections of this manual and in the workshop. For instance, you'll likely want to use the POTRR model to structure your LMS lessons and adapt one of you institution's course website templates until it makes sense for your course.

There are several topics you can discuss during the 10-minute presentations, which are further described in the following table.

Table 2: Example Elements of an Effective 10-minute Presentation

Presentation Topic	Goals
Outcomes and context	Describe the outcomes of the LMS lesson and how it fits into your broader course's design
Demonstration	Show each section of your course and lesson in the LMS in enough detail so the audience understands them, including your lesson content, task directions, LMS tools, etc.
Design rationale	Discuss your rationale or reasons for your design choices
Analysis	Discuss the strengths and weaknesses of your lesson design as you see them
Needed feedback	Discuss the problems or questions you have and would like help with

To save design time, it is perfectly acceptable, even preferable, to use existing lessons that you have already taught as the basis for your LMS lessons. Ideally, the LMS lesson you create in this workshop can be used in your existing courses to help you move these lectures into the online environment, thereby making time for **learning by doing** activities during class time (see the section on **flipping instruction** later in the manual for more discussion of learning by doing).

It will be up to you to complete these LMS lessons in your own time between workshop days, but if you are struggling, make sure that you:

- *Ask your facilitators what types of extra support are available*, for instance, one-on-one support, study groups, etc.;
- *Ask your facilitators what tools or resources are available to extend your learning*, for instance, extra readings, software, etc.; and
- *Ask your facilitators for digital templates* if they aren't already provided to improve the quality of your work and save you time.

In this workshop, it's expected that you already have a face-to-face course and/or syllabus that can be adapted for online or blended delivery. If you don't have a course already designed or if you are unhappy with the original design of your course, please speak with your facilitators and they can help you improve it on an individual basis during workshop breaks.

Peer Feedback

Since you will present several time using the cycle above, OnCDW will give you different opportunities to receive feedback on your assessment products. It will also allow you to see and learn from others, giving you many opportunities to give constructive peer feedback.

This feedback should provide you with enough meaningful information to determine how effective your assessment products are and to what extent you have met your goals. To be constructive and useful, your feedback to others should help them make changes that will improve their assessment skills and increase their effectiveness. The same is true for feedback that others give you.

Improving the Feedback You Give

When you give feedback in OnCDW, you should try hard to make it as meaningful and helpful to your peers as possible. For example, good feedback should be:

- **Descriptive rather than evaluative:** Describe your own reactions and observations. This includes what you saw and heard, and how it affected you. Avoid using language that conveys judgments.
- **Specific rather than general:** Give direct, "here and now" feedback to help the receiver focus on immediate behavior. General, non-specific feedback can be confusing, and lacks impact.
- **Solicited rather than imposed:** Feedback is most useful when it answers a question that the receiver has asked that the observer can answer.
- **Directed toward behavior that can be changed:** Frustration can result from receiving feedback about something that the receiver cannot readily change.
- **Well-timed:** Feedback is most useful when it is given as soon as possible after the behavior.
- **Emphasizes strengths:** Receivers will be more open to suggestions for improvement when they understand their strengths and how they can be built on.
- **Given in a caring manner:** Defensiveness and anxiety are reduced when the receiver feels that the giver is being respectful of her or his feelings.
- **Given in amounts the receiver can hear:** Too much information at once can be overwhelming and unhelpful or destructive if the receiver isn't prepared to hear it.

Improving the Feedback You Receive

When receiving feedback, it is important to be open, to listen actively, and to respond honestly. For instance, you can follow these guidelines to gain the most from your feedback session:

- **Ask for specific information, examples or reasoning:** If you don't fully understand or agree with the someone's feedback, as for an example or more clarity.
- **Paraphrase what you hear:** You can see if you understand someone's feedback by paraphrasing and repeating what they said.
- **Be initially accepting of all feedback:** Even if you ultimately don't agree with and won't use the feedback, be affirming and show gratitude when it's given.

- **Respond honestly and respectfully:** Especially when negative feedback is given, try not to quickly defend yourself or deny the feedback's validity and instead respond respectfully; and
- **Record and review other's feedback:** After completing the feedback cycle, keep and review your peers' completed feedback forms and take a picture of the feedback chart after the verbal feedback circle is complete.

After you finish each of your assessment presentations, you should be able to reflect on and answer several different questions with your facilitator as a means of self-evaluation. While your peers are writing their written feedback after your 10-minute presentations, you can discuss the following questions with your facilitator:

- **Achieved goals:** Did your LMS lesson accomplish its purpose? How far did your LMS lesson divert from your original plan?
- **Successful design elements:** What in your LMS lesson worked well?
- **Unsuccessful design elements:** What in your LMS could have improved?

When receiving verbal feedback from your peers during the 13-minute feedback circle, you should also ask yourself:

- **Most important feedback:** What feedback surprised you or made you think the most?
- **Unanswered questions:** Do you have further questions for your peers?
- **Application of feedback:** Do you need to do anything or make changes as a follow-up to the feedback?

Module 1: Getting Started with Online Design

Module 1 Outcomes

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

- Compare and contrast face-to-face and online instruction;
- Describe the strengths and weaknesses of online instruction that should be considered when designing an online course;
- Differentiate different types of online integration, including supplemented face-to-face courses, flipped courses, blended courses, and fully online courses;
- Differentiate different methods of teaching online, including asynchronous, synchronous and mixed instruction;
- Describe different LMS tools you can use when designing a course website for supplemented, flipped, blended or fully online instruction; and
- Explain different strategies you can use to supplement your face-to-face courses with an LMS to improve teaching and learning.

Even if you're an experienced face-to-face teacher, learning to be a competent online or blended instructor may not come as fast or easy as you'd like. This is because there are many new technologies, tools, strategies, and theories you need to learn to adapt how you design courses and lessons and how you interact with your learners when teaching online.

This workshop is an introductory workshop, so it will help you learn and practice many of the technologies and strategies that are fundamental to designing effective online courses and lessons for various purposes. After the workshop is completed, you should be able to design an effective online course to use when teaching a traditional face-to-face course, a flipped course, a blended course, or a fully online course. But it will be up to you to continue practicing and developing your skills until the online courses and lessons you design in the future are as pedagogically strong and engaging as they can be.

In this introductory module, you'll learn some of the fundamental concepts and technologies you need to consider when designing an online course for the first time. After finishing the module, you should be more able to understand and use various terms and tools as we go deeper with them in later modules.

Adjusting to Online Instruction

Moving a course into the online environment can introduce many new challenges to teaching and learning that may dissuade you from using online technologies. For instance, these challenges might include:

- **Different levels of support:** Online learning can create difficulties for your learners to communicate and understand curricula due to the lack of immediate, face-to-face communication and support.

- **Different motivational factors:** Many online learners can also struggle more with motivation than in a face-to-face class due to reduced (or no) fixed schedules, physical class times, or face-to-face reminders or encouragement from instructors.
- **Different types of learning relationships:** Online learning can make it harder to develop relationships due to reduced social and physical interaction between teachers and learners, and learners and learners. Without adequate consideration given to how learners meaningful connect with others during online design, many learners can ultimately feel disconnected from instructors and each other, and therefore less engaged in the learning process.
- **Different types of interactivity:** Online learning can also make it difficult to teach some skills and values that require human interaction or physical manipulation. If you can imagine teaching an online nursing course that requires learners to demonstrate authentic compassion for patients or teaching an online auto mechanics course that requires learners to demonstrate they can fix a car engine, you will struggle to make learning authentic or meaningful if learners aren't able to directly access and interact with patients or engines.

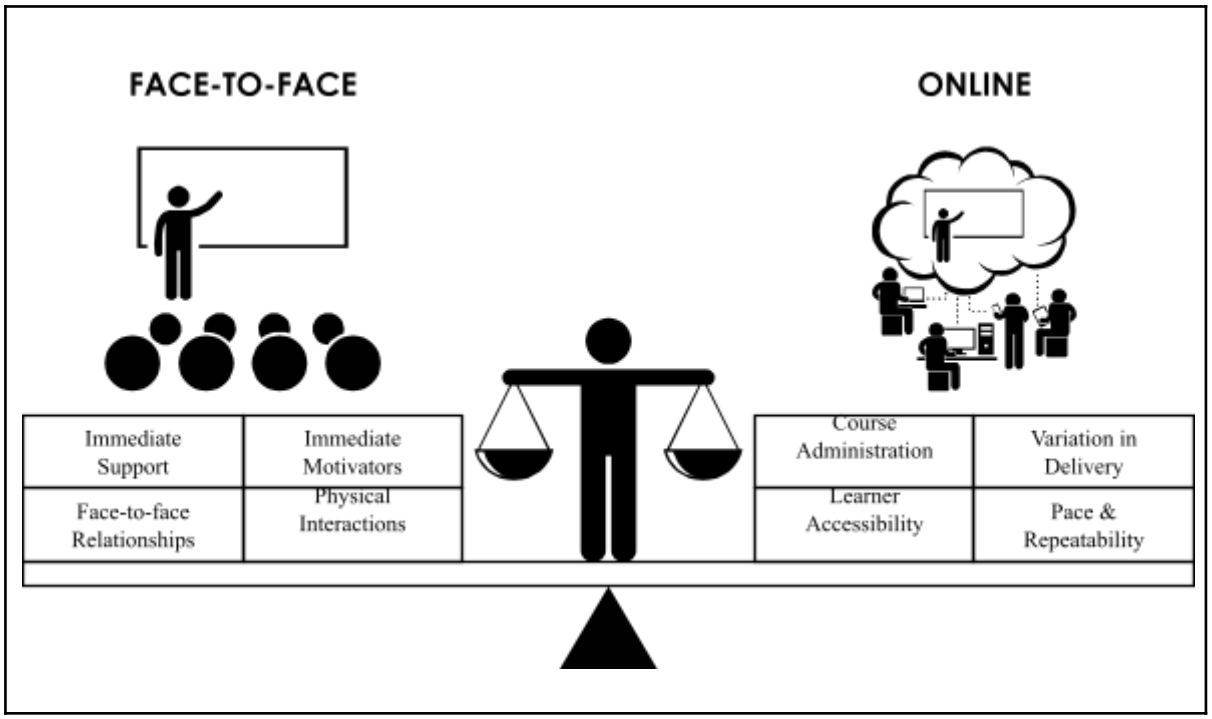
To ensure that online and blended teaching is as effective as possible, good online designers and instructors regularly use different strategies to lessen or mitigate these types of challenges. But even for the best online designers and instructors, these difficulties will always exist.

So does this mean that online education is invariably weaker or less effective than face-to-face education? A good online designer would say, "No, it really depends on your goals and the online tools you have available to reach them." Although it has its challenges, when the curricula is appropriate and when it is designed well, online learning can be as effective as face-to-face learning. In fact, for some teachers and learners, online learning has several strengths that can make it more effective. For example, some benefits of online learning include:

- **Course administration:** For teachers, Learning Management Systems (LMS) like Moodle can make some aspects of teaching and learner administration easier. For example, receiving and grading assignments, conducting quizzes and tests, tracking participation, and communicating with learners can be much simpler using LMS tools.
- **Accessibility:** For learners, LMSs can also make learning more accessible. For example, learners can access the course where and when they want to complete course work, watch lectures, or communicate with others in the class.
- **Variation in delivery:** Online learning can help instructors vary how and when they deliver curricula to their learners. For instance, they can teach more content and encourage more practice and application of curriculum by having learners complete lessons prior to or after coming to a face-to-face class. Instructors can also vary how they teach in class—for instance, by facilitating more learning-by-doing activities—if they remove the need to lecture curriculum during class time by moving lecture curricula online.
- **Pace and repeatability:** LMSs can also allow learners to learn at an individualized pace. For example, they can repeat recorded lectures, practice quizzes and interactive

objects, reread and re-respond to the work of their classmates, and so on. In this way, instructors can better and more easily accommodate learners who struggle and extend learning opportunities for learners who work more quickly.

Figure 3: Comparing Face-to-face and Online Instruction



Your goal as an online designer and instructor is to therefore make design decisions and use instructional strategies that minimize the challenges of online learning while taking advantage of its strengths. Of course, just as with face-to-face courses, your online courses will never be ideal or perfect, but with careful consideration of your learners' needs, your courses' competencies, and your strengths as a teacher, you should be able to design online courses that are both pedagogically strong and engaging for your learners.

Defining Types of Online Learning

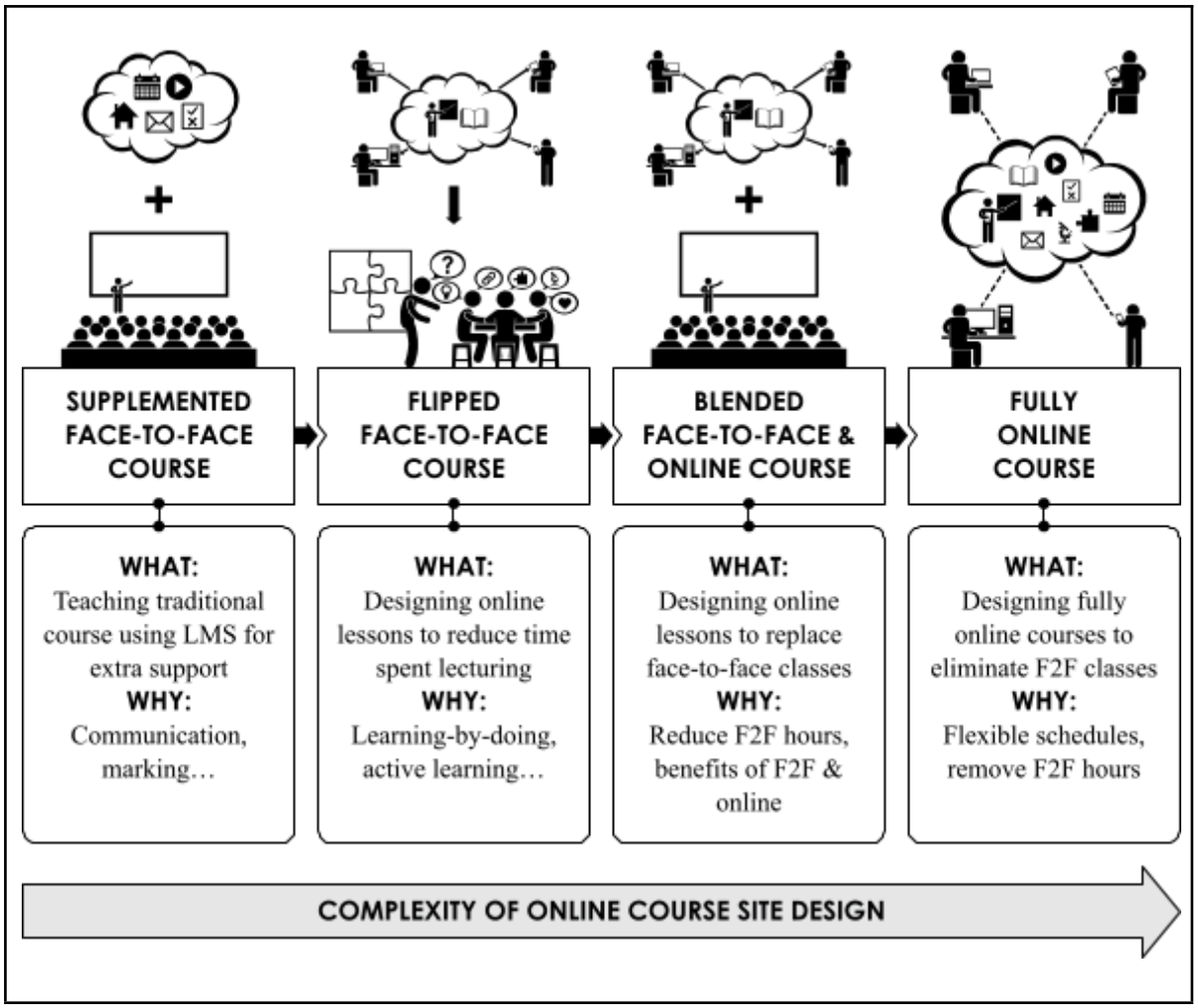
There is often confusion about the different ways LMS course sites can be used or integrated into a face-to-face course. This confusion is due to many different terms that are used to describe online learning, each of which has slightly different interpretations about the role and function of online instruction and course websites. The following list and figure describe four different ways you can integrate online learning when teach a course, including:

- **Supplemented face-to-face instruction:** The most common use an LMS course site is to supplement an existing face-to-face course to improve communication, marking, and access to curriculum. For instance, if you teach a course where 100% of class hours are in a classroom, you may also use an LMS to share files, send announcements, support learner homework activities, accept assignments, give quizzes and surveys, post grades, etc. You don't need to design full online lessons,

although you can still use POTRR to provide structure and increased support to your face-to-face classes.

- **Flipped instruction:** If you want to teach higher level skills, you can design courses that require learners to practice and apply curricula using highly participatory and challenging activities. This is known as **learning-by-doing**, and there are many instructional models you can use to help design learning-by-doing tasks, including case-, problem-, inquiry- and project-based learning. These activities, however, can take a lot of class time that is needed to teach basic curricula. Discussed more below, flipped instruction is used to move time spent transferring content (i.e. lecturing) into the online environment, making more time during class for learning-by-doing.
- **Blended instruction:** Sometimes, administrators, teachers and/or learners want to reduce face-to-face class hours for a course. In this case, blended instruction can be used to move a certain percentage of classes online. You could, for instance, teach a practicum course that starts with face-to-face classes, teaches online while learners are in practicum, then concludes with face-to-face classes. You could also meet as a face-to-face class every other week with online lessons in between. Blended courses can look different because they can include different percentages of online and face-to-face time as well as different ways to mix or sequence online and face-to-face lessons.
- **Fully online instruction:** Fully online courses are the most demanding for designers and teachers as there are no face-to-face classes to give learners immediate support, set expectations, answer questions, develop relationships, encourage and motivate stragglers, etc. Online course sites therefore need to be very well planned and thorough to reduce these types of issues.

Figure 4: Levels of Integrating Online Learning in a Course



Terms like "flipped" and "blended" are sometimes used interchangeably, so if you hear someone use these terms and you're unsure what they mean, it's important to clarify as they might be referring to supplemented, flipped or blended instruction depending on how their course is designed and delivered. Sometimes, you may even encounter a course that's both blended (i.e. has online lessons that remove face-to-face class time) and flipped (i.e. has online lessons that replace face-to-face lecture time with learning-by-doing activities).

Each of these example levels of online integration requires you to carefully design your LMS course site, but you will likely need to be much more thorough with your course site's design as you get closer to teaching a fully online course. Supplemented courses, for example, don't need detailed online lessons or fully online activities and assessments, while blended courses require a portion of your online lessons to be thorough, well designed and fully supported with online tools.

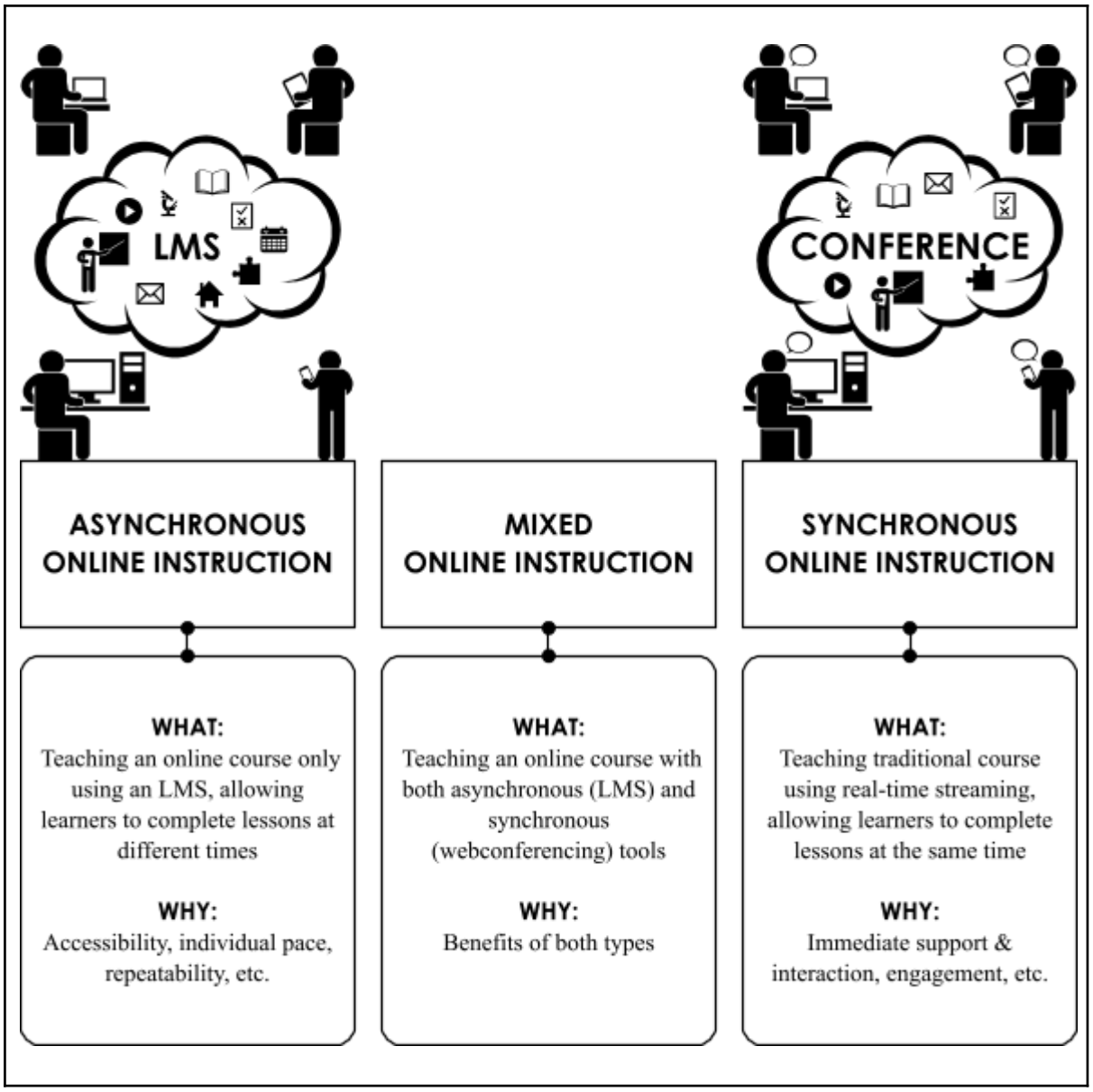
To make matters more confusing, there are also different methods of teaching online, including asynchronous online instruction, synchronous online instruction, and mixed online instruction. Asynchronous online instruction, the most common type, refers to online learning where teachers and learners can access the course site to complete learning activities at different times. For instance, you may have weekly lessons that learners needs to complete, but they can complete them anytime and at their own pace within the week. Asynchronous

online instruction usually requires a Learning Management System (LMS) platform like Moodle to be installed on a server and administered by IT support personnel.

Synchronous online instruction, on the other hand, requires teachers and learners to be online at the same time. For example, you might use webconferencing or videoconferencing tools to lecture a PPT, facilitate discussions and answer questions with learners who are sitting at their own computers and sharing their own audio and webcam feeds. If you've used Skype or Google Hangouts to talk with multiple people, chat, share files, and stream your monitor's video, you've used many of the tools that online instructors use when teaching via synchronous webconferencing. Although schools can instead pay for third-party services, synchronous online instruction requires a second type of software like BigBlueButton to be installed on a server that allows various audio and video feeds to be integrated and streamed together, as well as other functions that support teaching and learning.

Lastly, you can also teach a mixed online course and use various asynchronous and synchronous online tools as needed. For a simple example, if you have an asynchronous course designed in Moodle, you can synchronous video support for learners who need help with assignments or have questions by having virtual office hours, allowing learners to talk with you at a set time every week using Skype, Google Hangout, or another webconferencing tool. A more complex example of mixed online instruction might be a course that teaches a synchronous lesson every other week. Teaching completely synchronous course is rare, as most synchronous instruction also use an LMS to support asynchronous learning interactions like organizing lessons, sharing curricula, accepting assignments, posting grades, and so on.

Figure 5: Differentiating Asynchronous and Synchronous Online Instruction



Defining and Using LMS and Third-party Tools

Learning Management Systems (LMSs) are software platforms that are usually hosted on school servers. They are designed to allow teachers to create course websites and facilitate many of the common interactions needed for online teaching and learning.

Some of the common tools that are often used in a LMS course site include:

- **Assignments:** Allow learners to submit assignments so teachers can grade, give feedback, and return them;
- **Chats:** Allow learners to interact via real-time (synchronous) text-based discussions;
- **Files:** Allow teachers to upload and share curriculum and resources;

- **Feedback (Surveys):** Allow teachers to gather learners' anonymous or named responses for activities or surveys.
- **Forums:** Allow learners to interact via asynchronous text-based discussions and announcements;
- **Labels:** Allow teachers to organize website content and write instructions;
- **Lessons:** Allow teachers to sequence instruction via pages and review questions;
- **Links:** Allow teachers to link to online resources;
- **Pages:** Allow teachers to write individual webpages;
- **Quizzes:** Allow teachers to assess learners with various question types; and
- **Wikis:** Allow learners to co-create and edit each other's writing.

This is not a complete list of tools available in an LMS like Moodle, but these are the most important tools you should familiarize yourself with and begin to integrate into your online courses and lessons where appropriate. Depending on what plugins are installed in your institution's LMS, there can also be many (MANY!) other tools available to you to choose from when designing your course site. One of the more challenging skills to learn as an online designer is choosing the right LMS tools to achieve the right pedagogical purposes for your given learners. With time and practice, you should be able to learn different ways you can use each of these tools to support different types of learner interactions.

In addition to LMS tools, there are many (MANY!) other online tools that are always being developed and introduced that can be used to supplement the tools listed above to improve learner interaction and instruction in your course website. Some examples include:

- **Shared document editing:** This allows groups of learners to edit and work on shared documents at the same time (e.g. Google Docs). They can also be useful for teachers when giving consultation on learner's assignments. Some LMSs like Moodle can support this without needed third-party products.
- **Videoconferencing and screen casting:** As described above, this allows teachers and learners to interact in groups using synchronous video (i.e. like Skype or Google Hangouts). Some schools have their own servers and systems that support this (e.g. BigBlueButton).
- **Application sharing:** This allows teachers to access learner computers virtually to support or demonstrate how to use software, complete computer tasks, work on documents, etc.

Supplementing Face-to-face Instruction with an LMS

It's likely that your first experience with an LMS was or will be to supplement a face-to-face course. When supplementing traditional classes, you don't need to design fully online lessons, activities or assessments to the same extent as when teaching a blended or fully online course—or may even choose not to design online lessons at all. There are a number of LMS tools and strategies you might use, however, to make your face-to-face teaching more efficient and effective. For instance, you might:

- **Share files and links to resources:** You should be posting relevant files and links that you want to share with your learners. For example, you can post your course syllabus, weekly readings, online videos, handouts of your lecture PPTs, and so on.

- **Communicate more with learners:** Your LMS has lots of useful tools that can help you communicate with your learners, help them communicate with each other, and help them communicate with you. For instance, you can use classroom announcements to automatically email ever student, forums to track and support discussions, wikis to let learners collaborate and so on. In this way, learners are better able to find information about upcoming assignments, class discussions, past lectures, etc.
- **Give face-to-face lessons more structure and support:** You can use POTRR to support your face-to-face learners with explicit purpose statements, outcomes and tasks as well as extra resources to support learner activities and curriculum transfer. Learners can therefore better understand the flow of your course, including how your lessons connect and why they're important.
- **Support assignments:** LMSs can drastically improve your efficiency at accepting, marking and returning assignments. For instance, using assignment submission tools allows you to accept digital assignments, including tracking late submissions. Depending on the filetypes you accept, marking can also be done completely online. You can also return marked assignments when you've finished marking individuals or the whole class, triggering an automatic email to students. You can attach rubrics or other assessment tools to marked assignments as well, improving the clarity of your feedback and grading decisions for your learners.
- **Support testing:** LMSs can also improve your efficiency at giving and marking tests. For example, you can import tests into your LMS, set the open and close dates and times, and even have the test automatically graded after the learners submit them for some types of questions. You can allow learners to retake tests several times and accept their average or best grade. You can also accept audio and video responses if you want to give accommodations or have learners demonstrate a task.
- **Support activities:** In this manual, we review the R2D2 model, which includes numerous online activities you can give for homework in a face-to-face class. You can also support your in-class activities by giving learners a virtual space to collaborate and share, for example in a group forum, a group wiki, or a chatroom.
- **Manage and post grades:** Above, we discusses how LMSs can support giving assignments and test, but LMSs can also help you manage your grading. After marking assignments and tests, student grades are automatically added to an online spreadsheet. The LMS give you control over what grades are viewable, so you can release grades whenever you want for different assessments.
- **Get feedback:** LMSs can also allow you to get lots of feedback form your learners, for instance, by using pre-, mid- and post-course surveys.

In addition to using these strategies and tools outside of class time to improve your course, you can also use your LMS during class to enhance classroom activities or add new opportunities for learning. For example, you can:

- **Share files during class:** If learners need support files to participate in classroom activities, they can navigate to the class site to download them or follow a QR code in your PPT using their smartphone. To accommodate various learners who may struggle with in-class activities, you might also include support videos they can watch and follow.

- **Mimic classroom response systems:** If all your learners have smartphones or you're teaching in a computer lab, you can share links or QR codes in your PPT that link to LMS surveys during class time. This can be handy to track participation, receive and display responses to questions, or gather anonymous feedback.
- **Give in-class quizzes:** If all your learners have smartphones or you're teaching in a computer lab, you can also reduce paper and create efficiencies in marking by having learners take quizzes and tests online.
- **Record and/or stream instruction:** If you are really adept with technology, you can also record or stream your in-class lectures so learners can review them online. This is also handy if you want to flip your classroom as a later date, since you'll have online lectures you can use in future flipped lessons.

Hopefully, after reviewing each of these strategies, you can see many different ways you can use an LMS to improve your current face-to-face courses. If you are new to using an LMS, it might be a good idea to start with the easiest strategies that have the most impact on teaching and learning. As you gain more familiarity with your LMS, you can then try new strategies in your course sites so that you can eventually design highly effective courses with lots of supplementary online support.

Module 1 Review

In this module, we were introduced to many of the important terms and tools you need to know as you begin your journey with online course design. We looked at the strengths and weaknesses of online instruction that you need to consider as a designer, and defined many types of online instruction that have different purposes and use different online tools and technologies. We also reviewed various common LMS tools you can use when designing a course website for supplemented, flipped, blended or fully online instruction, including what strategies you can use right now to supplement your face-to-face courses.

You should now be better able to understand common terms and technologies used in online design. In the next module, we'll look more closely at online course design theories, processes and tools to help you begin designing your own course site.

Module 2: Designing an Online Course

Module 2 Outcomes

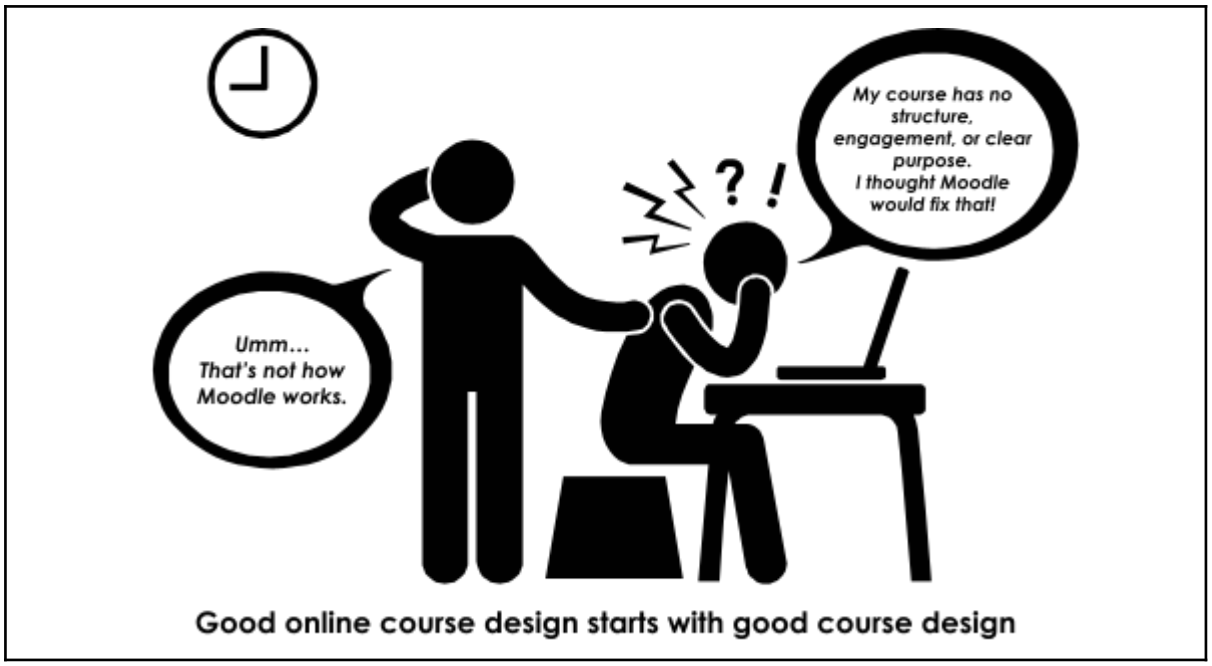
By the end of this module, you should be able to:

- Define important course design processes and terms, including backwards design, instructional alignment, program and course competencies, and course and lesson outcomes;
- List and follow stages of a methodical course site design workflow;
- Describe and justify the importance of elements in the Community of Enquiry model and CRAPPIE principles for online learning;
- List and apply strategies that ensure online participation;
- Describe elements of a good online course template, including above-the-fold elements; and
- Describe the process of reusing course websites.

In the previous module, we introduced important terms and technologies for online design. In this module, we'll look in detail at different theories, principles, processes and strategies you need to consider when designing a good course site. After reading this module, you should have a much better idea of how to modify a course template to meet your specific goals for your learners and course, and how to evaluate your site once you've completed its design.

Before we look more at what makes good course sites, we need to first recognize an important principle: in learning design, pedagogy always precedes and determines technology, and not the other way around. In other words, it is primarily our choices about pedagogy that make a good course and course site and not how we use an LMS and other online tools.

Figure 6: Designing Onling Courses with Strong Pedagogy

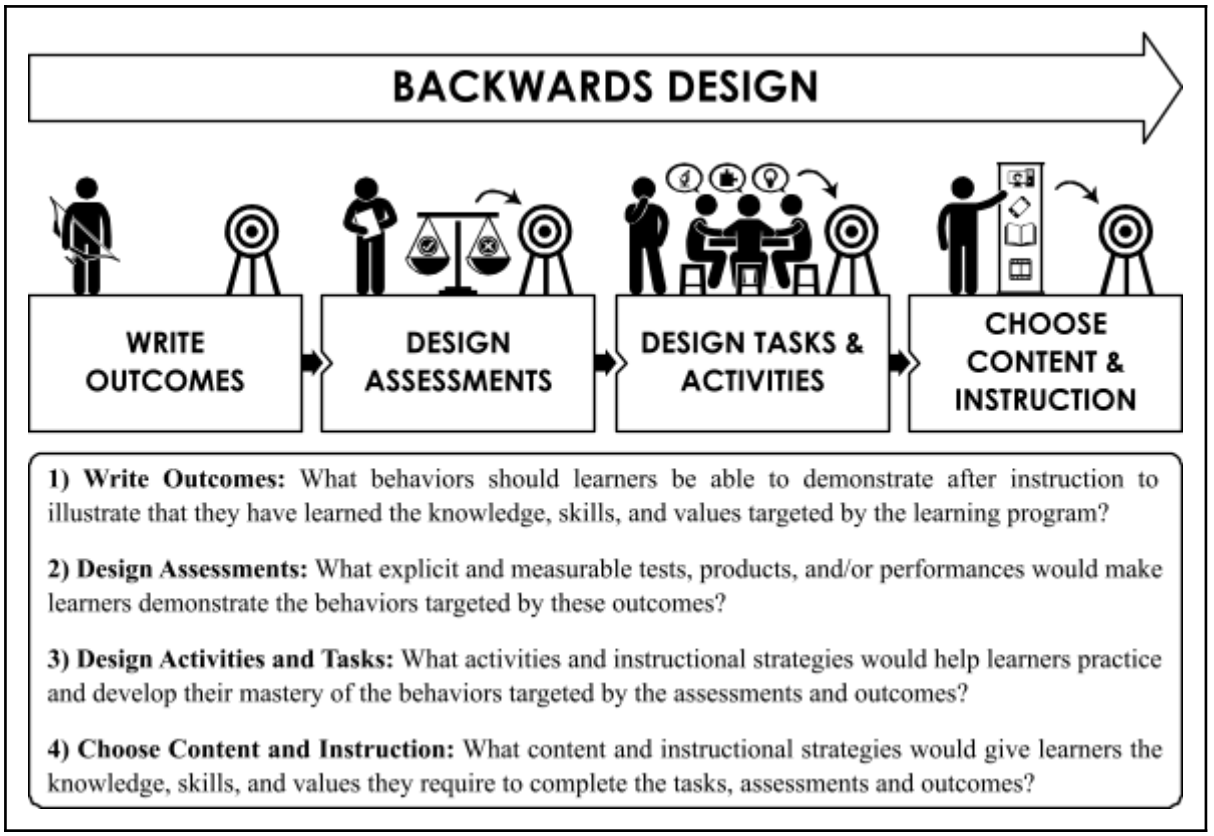


Understanding the Fundamentals of Course Design

As you begin designing your online course, you'll need to go through several stages when you'll have to make different types of design decisions. This section outlines how you make those decisions by reviewing different planning processes and terms you should be aware of before you begin your program and/or course design project.

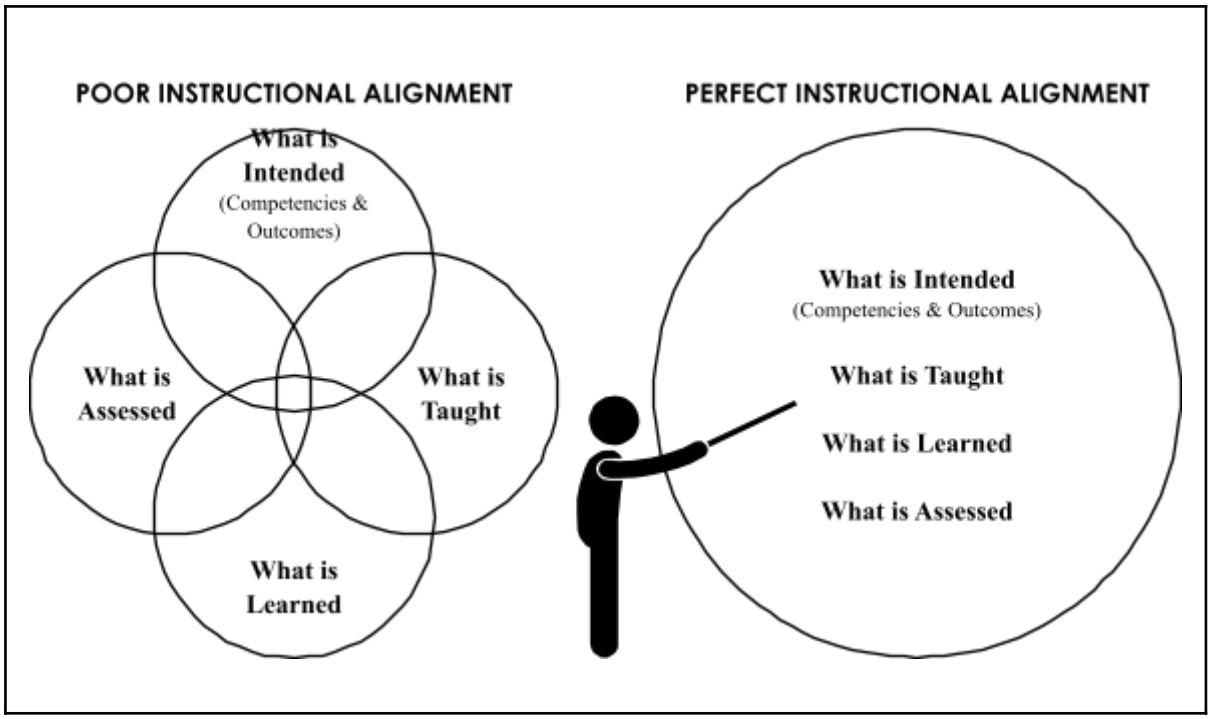
When designing a learning unit like a program, course or lesson, you can use a process called **backwards design**, which means that the design workflow starts with outcomes, then assessments, then learning tasks, and finally content. Without such a process, teachers often design courses and lessons haphazardly, for example, by choosing content they know and can easily find, making PPTs, lecturing, giving readings, and then testing for comprehension. By starting with available content, this type of **content-driven design process** doesn't ensure that courses have clear and standardized purposes or goals that align with the program or other courses, and it is the reverse of backwards design. Instead, by using backwards design and starting with outcomes, we ensure **competency- or outcomes-based design and instruction**.

Figure 7: Example Backwards Design Process



Backwards design is important because it helps to ensure **instructional alignment**, a term that refers to how much what you intend to teach, what you teach, and what you assess overlap. Ideally, a perfectly designed course has perfect instructional alignment, which helps learners demonstrate that they achieved exactly what you intended for them—in other words, your course-level competencies and lesson-level learning outcomes.

Figure 8: Poor and Perfect Instructional Alignment



It's important to recognize that backwards design can be used to design different learning units, including programs, courses and lessons. But no matter the learning unit, it always requires that you start with competencies and outcomes before designing the details of your assessments, tasks and content.

Defining Important Course Design Terms

Don't be worried if you don't yet know how to define, use or write learning outcomes or competencies. Many people are often confused by these terms because there has in fact been a lot of terminology that has been used over the years in often overlapping ways to describe the goals we have for our learners. For now, you should try to be comfortable with terms like:

- **Program-level competencies:** Sometimes referred to as or confused with program objectives or outcomes, these are high-level statements that define what qualities or behaviors learners must be able to exemplify or demonstrate upon successful graduation. The skills, knowledge and values addressed by program competencies should be general enough that they require several courses and/or years to learn. Courses that target the same program competencies should be **integrated** in their designs by addressing the program competencies in different yet coordinated ways, for example, by targeting different levels, encompassing different aspects, including different perspectives, etc. These integrated courses therefore have different course-level competencies that are sequenced and clearly linked to each other as well as the overarching program competency, for example in the terminology they use and the desired learner behaviors they reference.
- **Course-level competencies:** Sometimes referred to as course objectives, outcomes or goals, course-level competencies are directly linked to program-level competencies

but are more specific as they must define what learners should be able to demonstrate or exemplify upon finishing a course. Learners demonstrate their achievement of course competencies by completing carefully designed course-level assessments and tasks. Designers must create course-level assessments and tasks that target all of the course competencies, although single assessments can target multiple competencies.

- **Course-level outcomes:** Course outcomes can be redundant if course competencies are written well enough to describe observable and measurable behaviors that learners can achieve during a course. However, course competencies are written by program designers and not instructors, so instructors may need to reframe or rephrase competencies to be more relevant to specific groups of learners or be more specific and measurable within the context of the course. Instructors might therefore have to write their own course-level outcomes that clearly link to the course competencies. Reframing course competencies as measurable course outcomes also allows instructors to better design course-level assessments and tasks following backwards design. When writing course outcomes, they can be written to target one or more learning domains and levels, but they must accurately parallel and align with course competencies and be achievable within the duration of the course (see Bloom's Taxonomy in the Appendix for more information on writing outcomes).
- **Lesson-level outcomes:** Sometimes referred to as lesson or learning objectives or goals, lesson-level outcomes are directly linked to course competencies and course outcomes but are much more specific statements that describe an observable and measurable behavior that learners can achieve within the duration of a lesson. Lessons can be short (i.e. a fast 10-minute lesson) or longer (i.e. a two- or four-hour class) depending on the outcome's complexity and available class time. Lesson outcomes should be sequenced so they build in difficulty towards the learners' mastery of more complex course competencies. Instructors write and sequence lesson outcomes carefully to not only align with and build towards course outcomes, but also align with lesson-level assessments and activities following backwards design.
- **Program-level assessments:** These are assessments that align with and demonstrate the learner's ability to meet program competencies. Program assessments target more than a single course's competencies; instead, they ideally target higher-level skills, knowledge and values from multiple courses that learners must integrate and apply to successfully complete the assessments. Program assessments can be major/capstone projects, practica or coop positions and reports, ePortfolios with integrated course artefacts, major creative performances or showings, etc. Program-level assessments must be authentic and practical, which means they must realistically reflect the products and performances that successful practitioners regularly complete in the program's field or discipline. Ideally, they help learners demonstrate their competencies not only to instructors and evaluators in the program but also to potential employers before and after graduation.
- **Course-level assessments:** These are assessments that align with and demonstrate the learner's ability to meet course competencies and outcomes. These may include larger tests or authentic products or performances that require learners to apply the knowledge, skills and values targeted by course outcomes. Products are the result of larger, multi-lesson learning tasks and might include written reports, written lab experiments, design products, plans, reflections, videos, illustrations, etc.

Performances are also the result of larger learning tasks and might include presentations, role plays, simulations, debates, demonstrations, etc. Course-level product or performance assessments must align with course competencies and outcomes and should include an assessment tool like a rubric, which clearly outlines assessment criteria to the learner to support the quality of their work and their development of self- and/or peer-evaluation skills. Although course-level assessments should always serve formative purposes to help students learn and improve, they are most often used for summative purposes to grade and evaluate learners.

- **Lesson-level assessments:** These are assessments that align with and demonstrate the learner's ability to meet lesson outcomes. Lesson assessments can be used before a lesson (i.e. pre-assessments) to gauge learner understanding of lesson curricula and help instructors adjust their teaching methods or level their instruction if needed. They can also be used after a lesson (i.e. post-assessments) to gauge learner understanding and fix learner misconceptions or mistakes. Although lesson-level assessments can also be summative, they should always be used for formative purposes so instructors can gather data to give feedback, improve learner performance, and adjust teaching and learning methods.

In the Appendix, you'll find more information about how to write outcomes using **Bloom's Taxonomy**. Besides writing outcomes for courses and lessons, you can use Bloom's Taxonomy to write competencies for programs and courses so long as program and course competencies target the right level of generality. While competencies are often more general and may be harder to measure, course and lesson outcomes must meet **SMART criteria** when they describe learner behaviors—in other words, outcomes must be specific enough so that the teacher and learners clearly understand the targeted behavior without confusion, measurable with a valid and reliable assessment method and/or tool, achievable within the course or lesson, relevant to course competencies and the learners' needs, and time-specific as to when the targeted behavior should be learned and demonstrated.

When working with competencies and outcomes in a course, for instance, you should know the general course competencies that your course needs to target. Although these should be provided by program leaders, in reality, you may not be told what your course's competencies are, or in worst cases, there may not be any. In any case, it is your job as a course designer and instructor to write course-level outcomes that link to program and course competencies, integrate with similar courses in the program, and meet the needs of your specific learners.

In this case, following backwards design, you first write course outcomes that link with course competencies. You then plan course-level assessments and tasks that learners must complete during or at the end of your course to demonstrate their ability to meet course competencies. Finally, you design and sequence lessons that develop your learners' mastery of the knowledge, skills and values required to complete your course-level tasks and assessments.

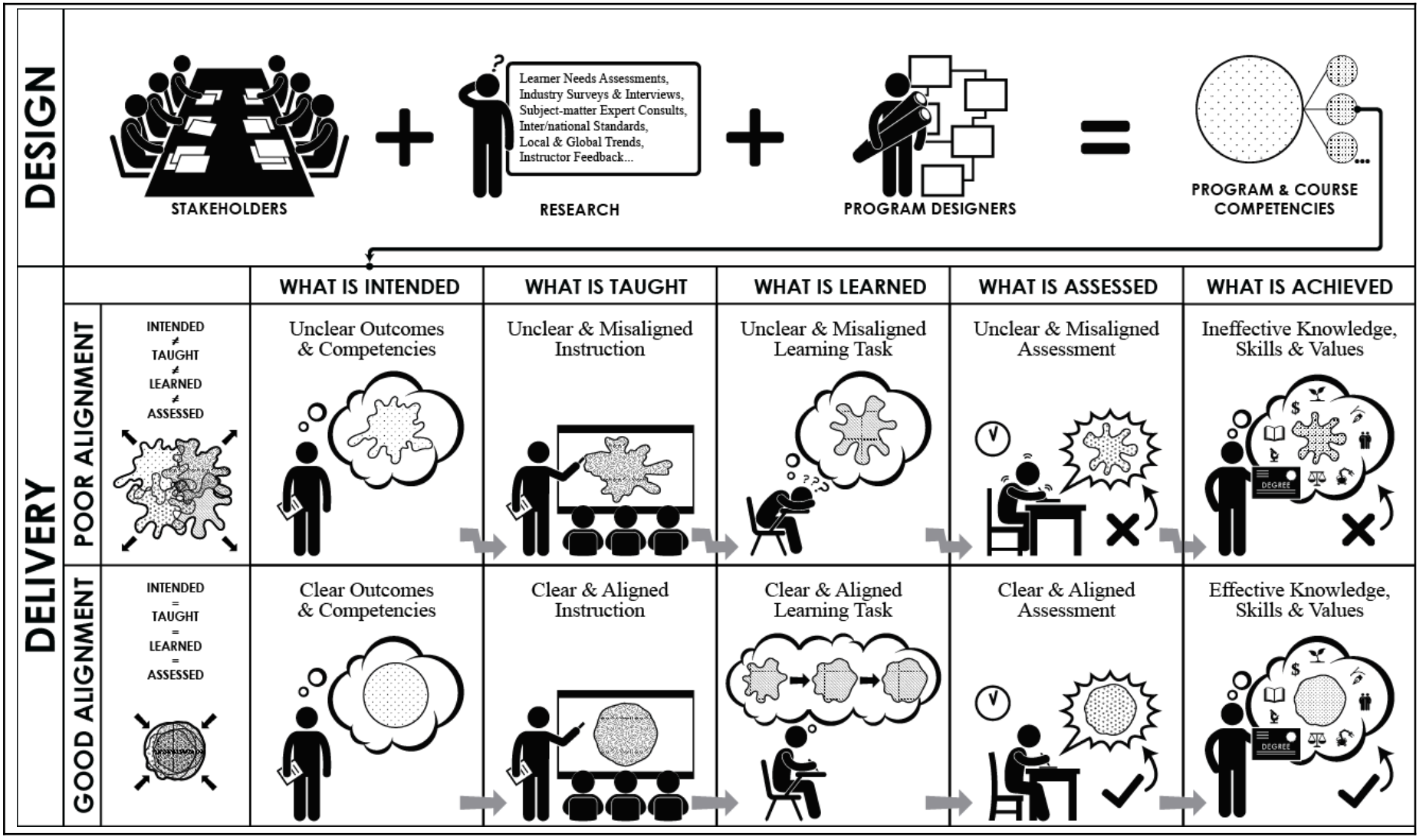
The ultimate goal of such rigorous and methodical design is prove to all stakeholders—learners, administrators, colleagues, standards organizations, institutional funders, etc.—that your courses meet the competencies they were intended to meet. Although program and course planning using competencies and outcomes might look complicated, with practice and the right tools, it need not be. The tools that you use can make the program and

course design process much clearer and more efficient, but they take some practice to get used to.

Table 3: Types of Competencies and Outcomes Used in Program and Course Design

				
	Program Competency (PC)	**Course Competency (CC)**	**Course Outcome (CO)**	**Lesson Outcome (LO)**
Achievable Within	• Program duration • E.g. many years	• One or several integrated courses	• One course	• One lesson
Written By	• Program leaders, subject-matter experts & designers	• Program leaders, subject-matter experts & designers	• Instructor • Possibly learners if highly constructivist	• Instructor • Possibly learners if highly constructivist
Written To	• Be high-level, complex, general • Support course designers & instructors • Align with graduate attributes and program goals • Ensure effective course integration & sequencing • Include multiple domains if needed	• Be mid-level, less complex & general than PCs • Align with program competencies at different performance levels • Ensure effective course integration & sequencing • Include multiple domains if needed	• Be mid-level, simple, specific, measurable, achievable • Achieve instructional alignment with course assessments and lessons • Support learner & instructor planning, duties & responsibilities • Include multiple domains if needed	• Be low-level, simple, specific, measurable, achievable • Achieve instructional alignment • Support learners & instructor • Include one level & domain, but can be taught with other LOs in same lesson
Informed By	• Industry (e.g. DACUM) • Learners (e.g. needs assessment) • Subject-matter experts • Global trends & standards • National & institutional standards & goals • Instructor feedback	• Program competencies and sub-competencies	• Course competencies • Learners' needs (e.g. accommodations & extensions after diagnostic assessment)	• Course outcomes • Learners' needs (e.g. accommodations & extensions after diagnostic assessment)
Assessed By	• Program- & course-level projects & assessments • Capstone experiences • Practica or coop reports • Learner portfolios	• Course assessments (e.g. major tests, products & performances from learning-by-doing)	• Course assessments (e.g. major tests, products & performances from learning-by-doing)	• Lesson-level formative assessments • Classroom Assessment Techniques (CATs) • Observation & feedback

Figure 9: Designing and Delivering Instructionally Aligned Programs



Following an Online Course Design Workflow

Now that we better understand some of the foundational processes and terms related to course design, this section outlines stages of online course design so you can follow a clear process each time you need to make a new online course As you begin creating your online course with backwards design, you'll want to use a workflow that helps you make good design decisions.

Below is a figure that goes into greater detail about the stages you can follow. In reality, you can complete some of the stages at the same time or slightly out of order. In time, you'll therefore likely evolve your own process that works best for you.

Figure 10: Example Stages of Online Course Design

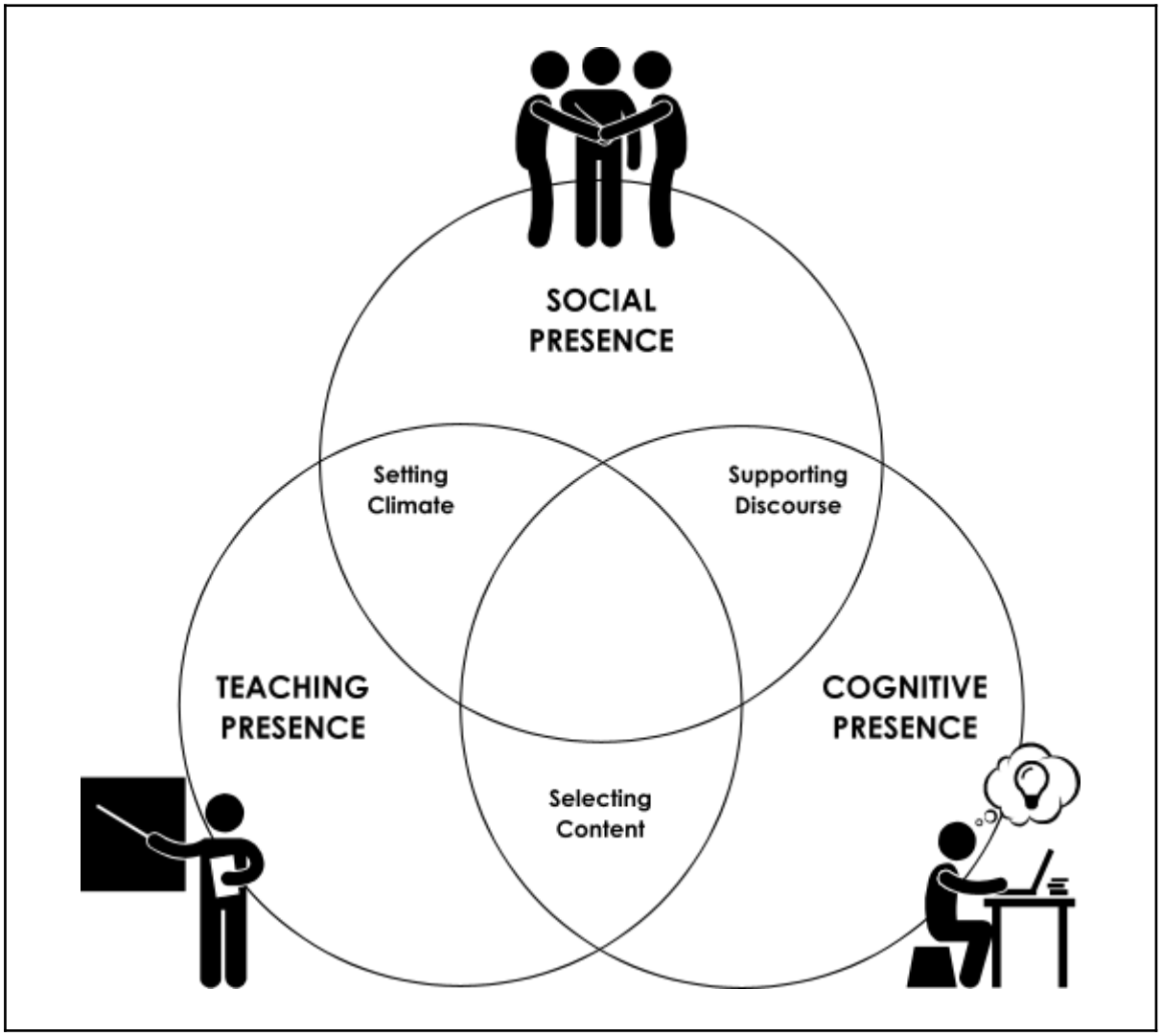
1) Map your course	• Determine the course-level outcomes, course-level assessments, and major learning tasks that align with program- and course-level competencies.
2) Map your learning units	• Create a course map or complete a matrix that illustrates the topics and sequencing of your learning units (e.g. lessons, topics, and/or weeks).
3) Design your syllabus	• Add your course information, course map, assessments, schedules, etc. to your course syllabus.
4) Create course structure in LMS (with template)	• Add your course introduction, assignments, communication tools, topic titles, etc., to your course site, including using headings like POTRR to structure individual lessons.
5) Create unit &/or lesson outcomes	• Develop and sequence learning outcomes for each lesson, week, and/or topic using Bloom's Taxonomy which align with and build towards course outcomes and assessments.
6) Design & align lesson tasks & assessments	• Select and design learning tasks and assessments that help learners practice and achieve lesson outcomes during each lesson.
7) Identify & design lesson content	• Find, adapt, and/or design multi-modal content that teaches the concepts, skills, and values addressed by lesson outcomes, tasks, and assessments, which may include eLectures, texts, websites, videos, etc.
8) Create LMS lessons & add LMS tools	• Transfer the outcomes, learning tasks, assessments and content into each lesson section in the LMS using appropriate LMS tools and a consistent lesson structure (e.g. POTRR headings).

	**9) Evaluate & revise your course**	• Review the course site, syllabus, and course lessons to ensure they are correct, consistent, pedagogically strong, etc., using evaluation tools, online design principles, educational models and theories, etc.

Creating an Online Learning Community

Now that we have a better understanding of processes for online course design, we now need to think more about criteria for good online course design. To help you identify these criteria, this section describes a the Community of Inquiry model. The model is useful because it breaks down online learning into three overlapping elements that address many of the challenges of online teachers and learners encounter. The three elements in the model—social presence, cognitive presence, and teaching presence—can help you begin to focus your questions and decisions when designing online courses and lessons.

Figure 11: Elements of the Community of Inquiry Model



The rest of this short section briefly discusses each of the presences and why they are important when designing online, flipped and blended courses. Each of the presences should encourage you to ask several questions when evaluating your online design to ensure you are using the best technologies and strategies available to you to facilitate learning in your online course.

Designing for Social Presence

Without face-to-face interaction, it can be difficult for some learners to connect with you and other learners in your online course. Social presence refers to the role of the learning environment in creating a safe and collaborative space where learning can take place. Designing for social presence means that you need to spend time developing a safe and encouraging online learning environment that welcomes social relationships and interactions. Social presence reminds us to evaluate our online courses by asking such questions as:

- **Authentic relationships:** How should my learners share who they are (e.g. their personalities, needs, ideas, etc.), and get to know each other and me as their instructor?
- **Supportive learning interactions:** How should they be encouraged or taught to be respectful to each other, to encourage each other's learning, and to take risks?
- **Connections and communication methods:** How should they connect and communicate with one another and me as the instructor?

Designing for Teaching Presence

Teaching presence refers to your roles as an online instructor in supporting learning, including how you design the curriculum, manage and support students, and instruct content. Designing for teaching presence means that you need to spend time reflecting on how you guide learners through the curriculum, reinforce main ideas, and support tasks that help your learners achieve course-level outcomes and program competencies. Teaching presence reminds us to evaluate our online courses by asking such questions as:

- **Directions and structure:** How should I share course and lesson goals, expectations, directions, and outcomes with my learners?
- **Learner support:** How should I guide how my learners engage with the curriculum, including how I initiate and focus discussions, clarify meaning, avoid misconceptions, encourage collaboration, and so on?

Designing for Cognitive Presence

Lastly, cognitive presence refers to the roles of your chosen instructional materials in supporting learning. Designing for cognitive presence means that you need to spend time thinking about how your course's curriculum is represented, chunked, scaffolded, sequenced, and connected to minimize unwanted confusions and questions and help your learners advance quickly to practicing and applying new skills, values, and concepts. Cognitive presence reminds us to evaluate our online course materials by asking such questions as:

- **Curriculum choices:** How should the main skills, concepts, and values in my course be represented and communicated to my learners (e.g. what terminologies, curricula, modalities, and media should be used)?
- **Pedagogical design:** How should these main skills, concepts, and values be:
    - **Broken down** ("chunked") into easily learnable units,
    - **Sequenced** to build in complexity towards broader course outcomes,
    - **Reinforced** through repetition,
    - **Practiced and applied** through active learning tasks and assignments, and

- **Assessed** with valid and reliable methods and tools?

The Community of Inquiry model tells us that we need to think a lot about how we can create and maintain social, teaching and cognitive presence when designing an online learning community. As online course designers, the primary tool we use to structure and build such a learning community is a course website hosted in a Learning Management System.

With the Community of Inquiry model in mind, we'll next review how to design and evaluate a course website to ensure it creates authentic learning interactions, supports learners with clear directions and tasks, and presents content in the most meaningful ways.

Reflecting on Design Principles for Good Course Websites

One of the major tasks of an online instructor is designing and maintaining course websites. There are many different approaches to structuring and designing an online course website, and in time, you'll likely develop your own preferences for how your course websites should be structured. There are, however, several principles you should focus on to ensure your course website is as pedagogically strong as it can be. To help you remember these principles, you can use the CRAPPIE acronym:

Table 4: Using CRAPPIE Principles to Evaluate Online Course Design

Principle	Self-evaluation Questions
Clarity	● Is everything in the course site clearly written and described? ● Are objectives, directions, tasks, and schedules written simply and easy to find? ● Is curricula chunked, sequenced, connected and presented in the simplest and clearest way possible?
Responsibility	● Are learner responsibilities, expectations, and duties well-stated and easy to find? ● Does the site state exactly what learners must do to fully participate in the course? ● Is the course able to track or monitor learner participation for each task and/or lesson?
Accessibility	● Is the course, website, and curriculum accessible, adaptable, and usable for the broadest variations in learner styles and abilities? ● Is the content presented using varied modalities and media? ● Can learners give input and feedback if their needs aren't met by the course's design?
Predictability	● Does the course's design follow predictable patterns that reduce confusion? ● For example, is content organized in a structured way with consistent terms, headings, bullets, numbering, fonts, highlighting, and so on?
Proactivity	● Does the course incorporate strategies and tools that proactively solve learner confusions, questions, and problems before they occur? ● For example, does the course mitigate learner confusion with announcements, reminders, directions, schedules, progress tracking, question forums, eLearning tips, etc.?
Interactivity	● Are there multiple opportunities for learners to interact with you and each other? ● Are there multiple opportunities and ways for learners to interact with the course content, for example using varying learning tasks, modalities and multimedia? ● Are there multiple ways learners can communicate with the instructor and each other? ● Is it clear how they should communicate respectfully and supportively?

Engagement	● Does the course introduce learning units and present content as engagingly as possible? ● Do course communications and reminders regularly help to motivate learners to fully participate and complete their best work? ● Is the purpose and importance of each assessment, lesson and task authentic to the needs of learners and clearly stated?

Tracking and Ensuring Online Participation

CRAPPIE principles remind us that we need we need to have clear responsibilities and expectations for our learners. As you design your online course and lessons in your LMS, you'll therefore want to continuously evaluate how you are keeping your learners accountable for participating fully in each lesson and learning task.

While designing your course site and LMS lessons, you need to ensure your learners are accountable for participating in all your learning tasks because many students will not complete them if they believe they don't have to. Students who struggle with motivation often find online learning more difficult than face-to-face learning. You should expect that some of your less motivated students will not complete activities if they believe they won't be held accountable with negative consequences for their lack of participation.

You can use several strategies to ensure your learners fully participate in all your learning tasks:

- **Communicating expectations:** Your syllabus and communications should clearly state that learners should participate fully in the lessons. It also helps to communicate that their participation is recorded and tracked within the LMS course site.
- **Using badges:** Badges are icons on the website that are automatically or manually rewarded when learners complete various tasks. These can promote learner motivation and participation and help to gamify your course.
- **Grading participation:** Your course design can also include a mark for participation. The participation mark can be determined by removing marks for each learning task that isn't completed (e.g. 10% total, minus 1% or 2% for each missing learning task).
- **Using lesson assessments:** If you include short quizzes, assignments, or other documentable assessments as your post-assessments, these can demonstrate participation and be used in grading (e.g. each lesson has a small quiz or assignment that contributes to the learner's grade).
- **Tracking learner activity:** LMSs like Moodle allow you to set up activity tracking. This means that you and the learners can view which activities they have completed. When you use an LMS tool like a forum, you can turn on activity tracking and set conditions for when the forum will be automatically marked as completed, for example when the learner posts to the forum and/or replies to another post. As a teacher, you can view a table of your learners and all their tracked activities, allowing you to easily see which learners are participating in what tasks and activities.
- **Reviewing participation logs:** LMSs also allow you to see when and how often each learner accesses the course site, including which resources and pages they visit. This data can also be used to see which learners aren't participating and quantify grades.

In the next section, you'll be encouraged to use a template that will help you ensure learner accountability and apply CRAPPIE principles in your course site design. For instance, good templates should have many elements that promote clarity, accessibility, interactivity, and so on. As you begin using a template, you'll want to revisit the CRAPPIE principles and questions as well as the above participation strategies to ensure your design decisions are pedagogically effective. When you're finish your site, you can also use the Course Website Evaluation Checklist in the Appendix to improve your design and find potential problem areas or mistakes.

Using LMS Course Templates

This section describes why you should use a course site template and reviews the sections a good template should include. As discussed previously, in OnCDW, your facilitators will provide you with a course template that has sections you can replace, which will help you get started much more quickly with your course site. A good template can save you lots of time and improve the quality of your work. Although you should be changing the template to fit the needs of your learners and course objectives, starting with a template is always a good idea.

Regarding information at the top of a good course template, when learners access your site, it's important that they find the most important and needed information as quickly and easily as possible. The **above-the-fold introductory section** gives your learners their first impression of your course, and they will see it repeatedly each time they access the site. This is why it's important that you design the top of your site very carefully. The following table lists different sections and elements you should think about including at the top of your site.

Table 5: Example Introductory Sections in a Course Site

Section	Purpose
Course Introduction	This section performs two major functions: ● It briefly provides welcoming information to the learners that describes the purpose and goals of the course and introduces the teacher as a safe, respectful, and encouraging person. ● It lists important information about the course and instructor, including the course name, number, and section, as well as the instructor's name and preferred methods of communication for support.
Course Documents and Resources	This section contains all of the course resources that you think your learners will need to regularly access, for example: ● The course syllabus (i.e. as a PDF file) ● Course texts (i.e. as PDF files or links to purchasing information) ● Course schedules (i.e. as a link to a page with assignment due dates and/or an iCal file with assignment due dates) ● eLearning tips and support (i.e. a page that provides more information about how to succeed as on online learner and what support is available at the school)
Course Communications	This section contains all of the main tools for learner interaction and support. For example, it might include:

	● A forum that serves as instructor announcements (i.e. students are automatically notified of posts via email and online the instructor has permissions to post) ● A class chat tool for synchronous text discussions ● A forum for student questions, discussions, and contributions ● A link to a synchronous videoconferencing room (e.g. Google Hangout, BigBlueButton, etc.) for teacher support or learner discussions ● A page that describes online communication etiquette
Course Assessments	This section contains all of the main course assessments with clearly written due dates, for example: ● Assignment drop boxes with assignment descriptions and assessment tools (e.g. rubrics, templates, etc.) ● Larger course-level quizzes and/or tests

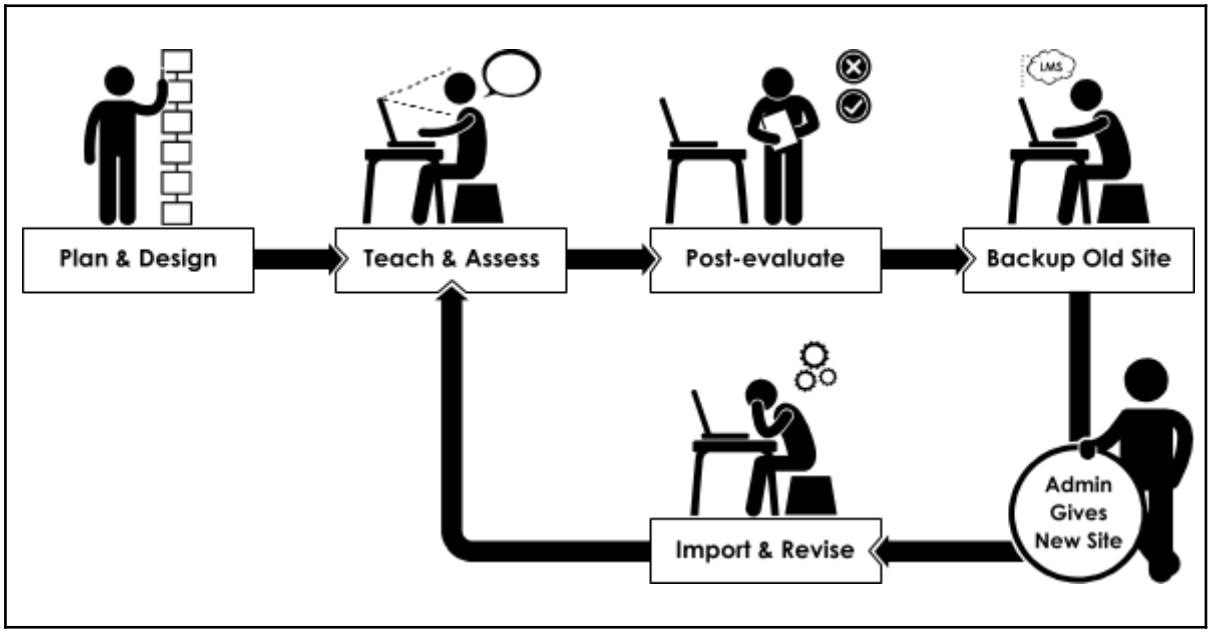
Besides these introductory sections, your template can also include several other elements to save you time, including pre- and post-course surveys and lesson templates with sections you can easily add information to and modify. The next module in this manual will go into much greater detail about the types of information you should be including in each lesson within your template.

Reusing Backups of Past Course Websites

Although designing a good course site can take time, one of the major advantages of investing initial time and effort in your site is that you can reuse and refine it when reteaching your course. After completing your course, you can backup and export your site's design without past students' data. When teaching the course again, you then request a new course site, import your old course, make any required revisions and improvements, and then open the new course to your next group of learners.

Backing up your course site is very important because you can waste all your time and effort if your LMS system crashes or if LMS system administrators delete your old courses. System administrators should have redundant servers for the LMS to protect against data loss, but you should be backing up your data regardless. Never assume that your old courses will stay on your institution's LMS forever. Backing up your course is also important if you teach at different institutions or think you may be moving to a new institution to teach similar courses.

Figure 12: Backing Up and Revising Old Course Sites for New Classes



The following module will discuss in further detail how you can post-evaluate your course after delivery, including using feedback from your learners to determine what in your current course needs to be enhanced or fixed.

Incorporating Learner Feedback for Redesign

As mentioned in the previous module, one of the best things about online course design is that you can reuse your course sites if you teach the same courses multiple times. This means that if you spend the time to design a very effective course, you will likely only need to make small improvements to your course's design and LMS site when you teach it again. At a very minimum, you'll need to keep track of and change elements in your course site that change, like assessment due dates and schedules.

Rather than teach exactly the same course again, you'll learn a lot more about online course design and online instruction if you choose to continually improve your course sites each time you use them. For example, you can get feedback from your learners on your course design and site design using a short survey at the end of your course. The answers to questions like the following can help you make improvements to your course sites when you use them again:

- **Reactions to design:** What parts of the course did you find most: Useful? Engaging? Boring? Confusing?
- **Suggestions for redesign:** What would you change or keep about the course or course site and why? E.g. resources, activities, assignments, topics, site organization…

Some learner feedback may not be very useful or realistic, but you'll likely find patterns in the answers or some good ideas, especially the first few times you survey each course.

Learner feedback can not only help course site redesign, but also help course and program redesign.

Evaluating your Course Site Before Delivery

Once your course site has been designed, you should review it carefully before delivery to make sure it will be as effective as possible. To start evaluating your course site, you can review the models, frameworks, and theories we've discussed so far in this manual to ensure you've made the best design decisions possible. For example:

- **Community of Inquiry elements:** Review the questions related to social, teaching, and cognitive presences.
- **CRAPPIE design criteria:** Review the questions related to clarity, responsibility, accessibility, predictability, proactivity, interactivity, and engagement.
- **Course introduction sections:** Review your course introduction to make sure the sections meet the immediate needs of your learners when they come to the site.
- **Learner feedback:** Make sure you have ways of getting anonymous and named feedback from your learners, potentially including pre-, mid- and post-course surveys.
- **BOPPPS/CARDS/POTRR lesson elements (see next module):** Review each lesson to ensure the bridge, outcomes, tasks, post-assessments, and summary are effective.
- **SMART and Bloom outcomes (see Appendix):** Review your outcomes to ensure they follow Bloom's Taxonomy and SMART criteria.
- **Levels of instruction (see next module):** Review your learning tasks to ensure they build in complexity beyond just direct instruction and content transfer.

In addition to reviewing the above items, you can also use the evaluation checklist in the Appendix to evaluate your course site before delivery. After reviewing your course site with the checklist, it is also a good idea to contact one or more colleagues (or students, or friends…) to review your course and syllabus to find mistakes or areas of confusion. The more potential problems and confusions you fix before your course begins, the less time you will need to spend fixing problems in your course site when you should be teaching.

Module 2 Review

In this module, we briefly reviewed important course design processes and terms, a workflow for designing online course sites, as well as several models, principles and strategies that can help us ensure our online courses are pedagogically strong. We also began to think about what a course website should look like and contain as well as how we can use templates and reuse our finished courses.

You should now have a much firmer understanding of what makes a good online course and course website, so you should now be able to get started with your course site's design and know how you can self-evaluate your design decisions as you make them.

This module introduced foundational terms and processes for program and course design that can be confusing and complicated if it's the first time you've encountered them. If you are still struggling to understand elements, ask your facilitators what other training or materials might be available at your institution. If they are available at your school, other training like

Program Design Workshop and Course Design Workshop go into much further detail about design processes and tools that can help you create instructionally aligned programs and courses before you begin to move them into the online environment.

In the next section, we'll look more closely at how you can structure online lessons to ensure your learners can clearly follow your instruction and learning tasks, including how you can organize LMS lessons and recorded eLectures using various planning models like POTRR.

Module 3: Designing Online Lessons

Module 3 Outcomes

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

- Describe and apply a general process for chunking and sequencing lessons that build towards and align with course outcomes and competencies;
- Create online lessons in an LMS using elements from POTRR;
- Choose appropriate LMS tools to design online assessments, activities and instructional content;
- Explain the R2D2 model and use it to plan various tasks that align with lesson outcomes and support active online learning;
- Find and choose multimodal content that aligns with and supports lesson outcomes; and
- Describe a general production process and structure or online lecture videos.

In a previous table on page , a nine-stage workflow was described to help you design your online course and website. This section further elaborates stages five to eight of that workflow, stages which are relevant to designing online lessons. So in this module we'll review:

- **Lesson models:** How you can design outcomes-based lessons in an LMS using different lesson elements from POTRR;
- **Online activities:** How you can choose and incorporate online tasks and activities to ensure active online learning;
- **Online assessments:** How you can reliably assess online learners; and
- **Online content:** How you can find and choose online lesson content to support lesson activities and assessments.

Reviewing the Fundamentals of Lesson Design

Knowing how to use LMS tools and other online technologies will help you make better technical choices when designing your lessons, but as discussed in the last module, it's more important that you first have a good understanding of how to design a pedagogically-strong course with well-sequenced lessons that build towards and align with course competencies. In this section, we'll briefly review some more important learning design processes and terms, this time focusing on the lesson-level of design.

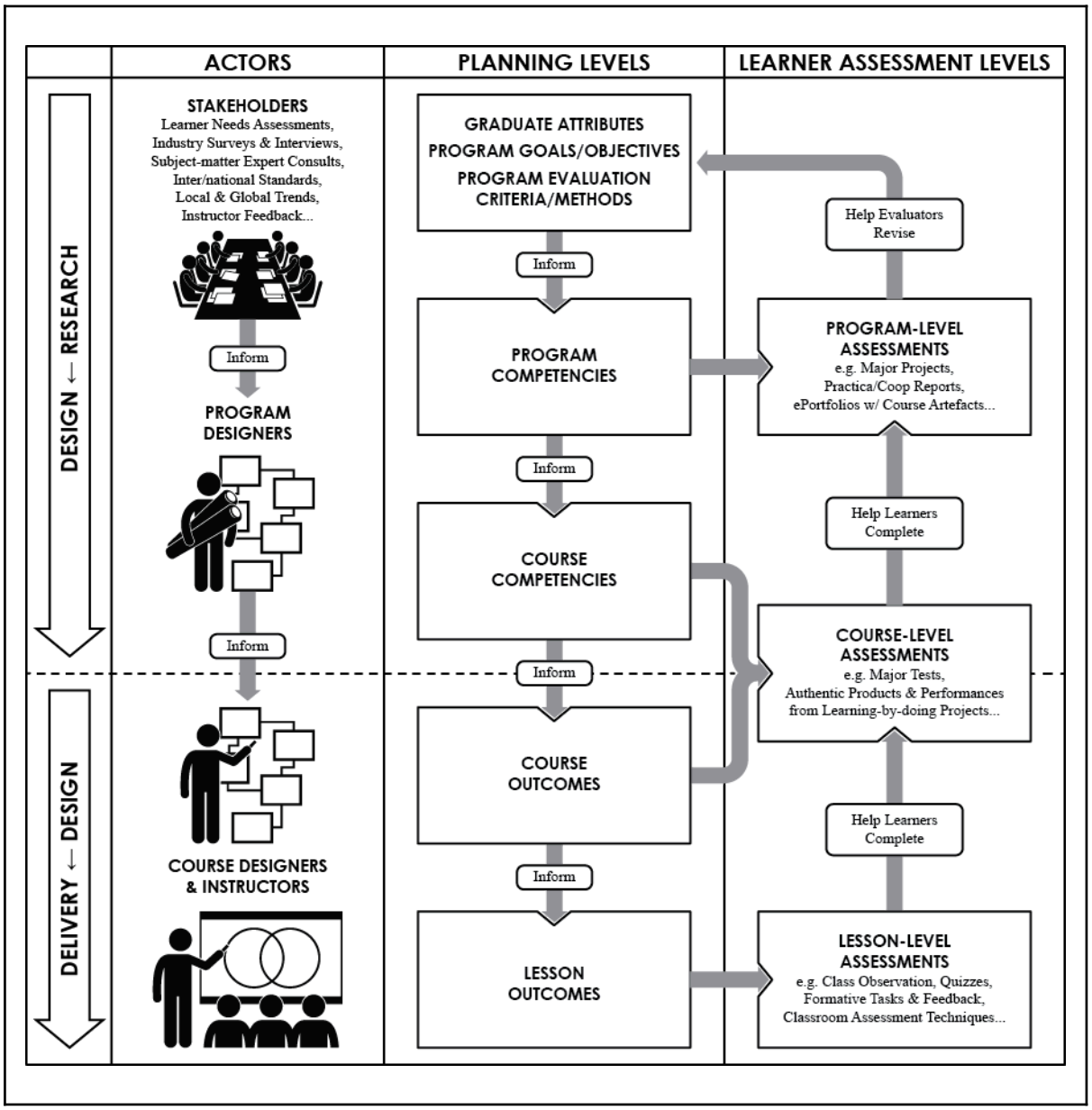
When you first begin designing lessons, you should know how to break down general program- and course-level competencies into learning outcomes that are achievable within a learning unit like a two-hour class or weekly online lesson. You should also be able to design

course- and lesson-level tasks and assessments that help learners learn and demonstrate those competencies and outcomes.

If these terms and ideas are new to you, don't worry. They are often new to many new and some experienced instructors. For now, however, you should be asking your facilitators for resources and clarification related to writing outcomes and designing lessons. You can also review the Appendix for more information about writing outcomes with Bloom's Taxonomy.

The following figure shows different planning levels when designing a program or course. Illustrated in the bottom of the figure, as an instructor, you should be designing course and lesson outcomes that align with course competencies, and then creating course- and lesson-level assessments that help learners demonstrate those competencies.

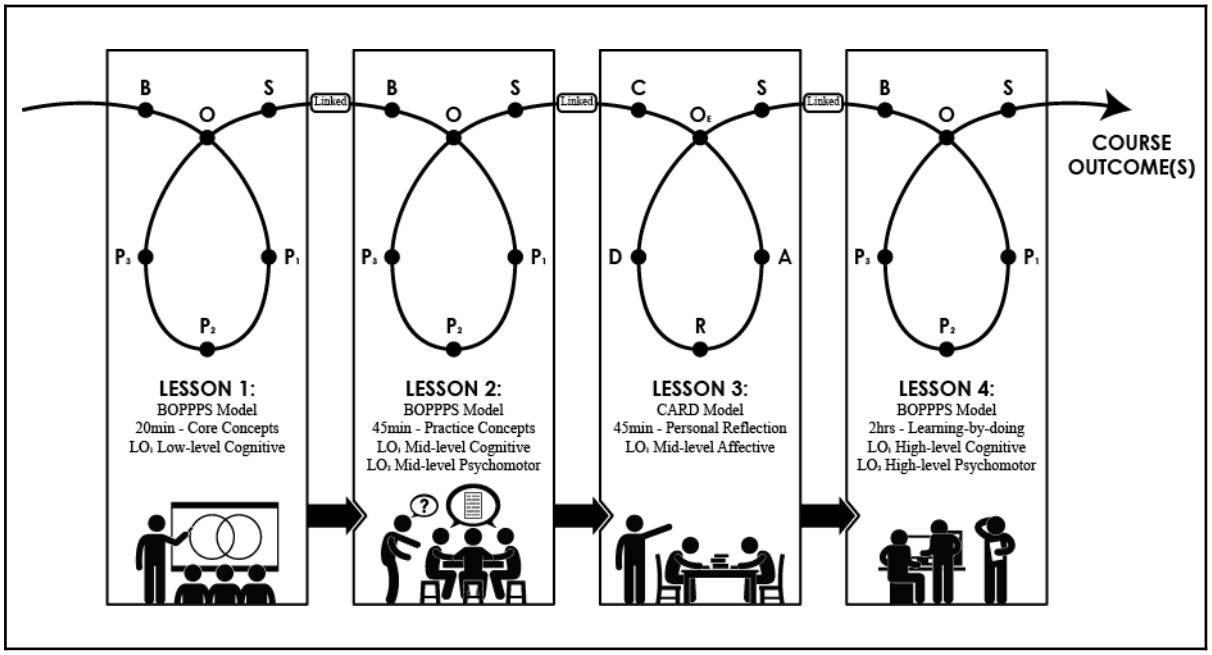
Figure 13: Levels of Planning for Program, Course and Lesson Design



When designing your lessons, you therefore need to make careful decisions that include:

1) **Translating course competencies into course outcomes:** Review your course's competencies to add detail and rephrase them as course outcomes, ensuring they follow Bloom's Taxonomy and meet SMART criteria.
2) **Chunking course outcomes into teachable units/topics (i.e. lessons):** Break up the course outcomes into units that can be taught during the duration of a class or week. Illustrated in the following figure, you can teach multiple lessons in a class or week.
3) **Sequencing the lessons logically:** Illustrated in the following figure, put your chunked lessons into a logical order that builds learners' mastery towards course outcomes, for example by introducing more complex concepts or tasks and/or targeting a higher level of Bloom's Taxonomy.
4) **Writing lesson-level outcomes:** Write outcomes that should be achieved during each chunked lesson, ensuring they follow Bloom's Taxonomy and meet SMART criteria.
5) **Adding lesson elements that align with lesson outcomes:** Plan lesson-level assessments, learning tasks, and curricula that students must use to learn and demonstrate lesson outcomes.
6) **Connecting and integrating the lessons:** Connect the lessons to each other and to your course outcomes and assessments, for example, by writing a course plan or schedule, making a course map, writing explicit connections in you lesson bridges, summaries and tasks, etc.

Figure 14: Example BOPPPS and CARDS Lesson Sequence Towards Course Outcomes



Following these steps, you should be able to complete a Course Outline using a plan that looks similar to the following template. This outline illustrates how you can align course outcomes with lesson outcomes, list them in a logical and sequential order, and beginning adding details about the content required for direct instruction, the learning activities that help learners practice the content, and the assessments needed to gauge learner understanding.

Table 6: Example Course Outline Template

Course #/ID:		Course Name:	

Course Outline					
Course Outcome(s) (COx.x.x.x.x)	**Class # (x) & Lesson # (x.x)**	**Lesson Outcome(s)**	**Content Topics for Direct Instruction**	**Learner Activities/ Guided & Independent Practice Tasks**	**Lesson-level Assessment(s)**
	1.1				
	1.2…				

(Adapted from Doan & Nguyen, 2014)

Using POTRR to Organize LMS Lessons

If you recall, OnCDW is an extension of the Instructional Skills Workshop (ISW), which is a similar multi-day workshop that focuses on lesson planning and delivery. ISW teaches a lesson planning model that incorporates six different stages or elements that follow the acronym BOPPPS:

Table 7: The BOPPPS Lesson Planning Model

Lesson Element	Purpose(s)
Bridge	● Connects lesson topics to previous experience or lessons ● Outlines purpose and importance of current lesson ● Engages the learner attention and motivation about the lesson topic
Outcomes	● Lists and describes the desired behaviors the learner should demonstrate after participating in the lesson tasks and assessments ● Uses Bloom's Taxonomy to target desired learning levels and domains (i.e. the concepts, skills, and values) ● Helps the learner know what they are responsible for learning and what the instructor is responsible for teaching and assessing
Pre-assessment	● Activates relevant prior knowledge about the lesson topic ● Gauges learners' prior understanding about the topic so the teacher can adjust their instructional approach
Participation	● Transfers curricula (e.g. concepts, skills, and values) in a structure that is carefully chunked, sequenced, and scaffolded ● Provides opportunities for guided and independent practice using learning tasks and activities designed to increase the learner's confidence in applying the new concepts, skills, and values and achieving lesson outcomes
Post-assessment	● Tests learners' abilities to achieve stated outcomes ● Provides feedback to learners to improve their performance
Summary	● Revisits major outcomes and points ● Connects lesson to future lessons, assignments, or practice ● Encourages continued application and learning of new concepts, skills and values.

BOPPPS is based on Robert Gagne's model that includes nine events of instruction. Although BOPPPS was originally developed to support face-to-face lesson design, with the exception of pre-assessment, its elements are just as relevant to designing outcomes-based lessons in the online environment. Because online learning is most often asynchronous (i.e. teachers post lessons in an LMS for learners to use at a later time), it is not really possible or practical for teachers to pre-assess learners to adapt their instructional approach or lesson design in the online environment for each individual lesson.

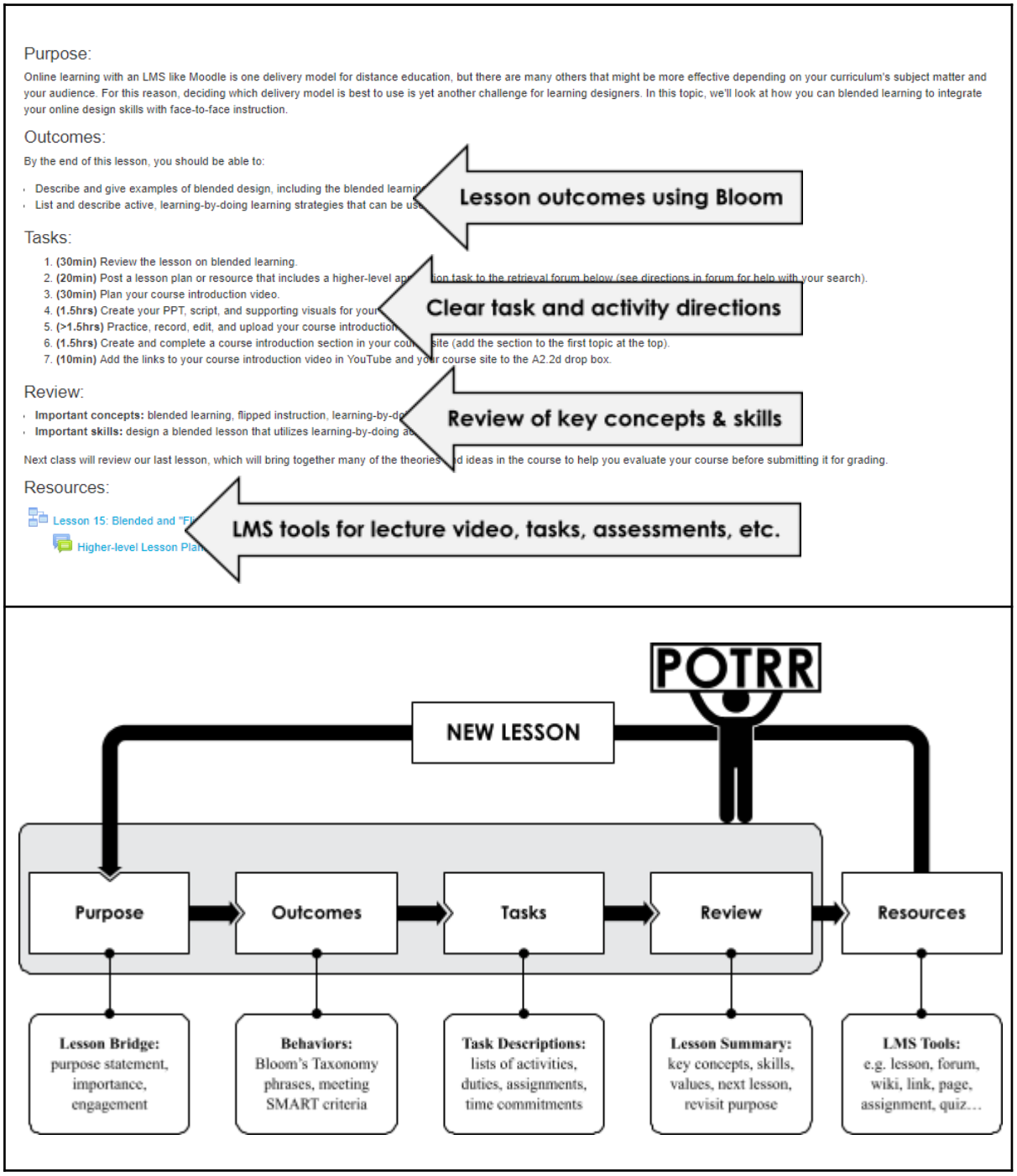
Like BOPPPS, the POTRR model includes effective lesson elements, but it is more useful for designing the structure of LMS lessons. POTRR is an acronym for the headings and sections you can repeat throughout your course site's lessons to make your directions, expectations and curriculum clear and your course site easily navigable and predictable. The table below describes the purposes of these headings and sections.

Table 8: Course Template Sections and Purposes

Section	Purpose
Purpose *(i.e. Bridge)*	• A short paragraph that serves the same purposes as the bridge in the previous table
Outcomes	• A list of carefully worded outcomes that serve the same purposes as outcomes in the previous table
Tasks *(i.e. Participation and Post-assessment)*	• A list of carefully worded directions for learning tasks that serve the same purposes as participation and post-assessment in the previous table • This list links to the resources at the bottom of this table
Review *(i.e. Summary)*	• A list of major concepts, skills, and values that serves the same purposes as summary in the previous table • A description of the next online or face-to-face lesson (i.e. for blended instruction) that serves the same purposes as summary in the previous table
Resources	• LMS tools added to support the lesson (e.g. files, links, lessons, forums, quizzes)

When used in a course site, these sections can be written with one LMS label. The LMS you include in the lesson—for instance, lecture videos, readings, forums, wikis, assignments, quizzes, etc.—can then be added at the bottom of this label. The figure below provides an example of how this might look when you apply the POTRR model.

Figure 15: Example LMS Lesson with Integrated eLecture Using POTRR Structure



The example above demonstrates the use of the POTRR model for designing an online lesson. In the example, tasks are carefully sequenced so that learners know exactly what to do. These example tasks include:

- **Curriculum transfer:** Learners are asked to complete an LMS lesson in the resources section which contains an embedded eLecture with formative quiz questions that track participation;

- **Application and extension tasks:** Learners are asked to complete an application task described in the eLecture, which in this example is a forum where learners must research, post, and analyze an online resource; and
- **Assessments:** Learners are asked to complete a course assignment that acts as a course-level summative assessment.

As previously mentioned, with the exception of the each of the LMS resources that are added below the lesson, the lesson template's POTRR sections are written in the course site using a label, a Moodle tool you use to add text to your course site page. If you want to use the lesson template throughout your site, you can duplicate the label, drag it to another topic or week, change the text in each POTRR section, and add new LMS resources below the new label. In this way, populating your site can be more efficient and produce more consistent lessons.

Designing Online Assessments

When filling out your POTRR lesson, once you determine your lesson outcomes, your next step is to determine how your learners should demonstrate that they can meet your outcomes. Well-written outcomes that use Bloom's Taxonomy can help you design your tasks and assessments quickly since their verbs already outline the specific actions you expect your learners to complete.

There are a few LMS tools you can use to incorporate post-assessment into your lessons:

- **Quizzes:** Making a post-assessment quiz for your learners can be useful for ensuring lesson participation and assessing for retention of content. Depending on the question types you use in the quiz, they can also be marked automatically and provide feedback immediately (e.g. true/false, matching, multiple choice…).
- **Assignments:** If you want your learners to apply their learning by creating a product or recording a performance, including an assignment drop box allows them to submit their work for grading. Assignments require grading, although there are tools and strategies you can use to make grading faster and easier (e.g. rubrics, feedback templates…).
- **Lessons:** If you want to build repeated opportunities for assessment throughout your lesson, using the lesson tool can be helpful. The lesson tool allows you to create pages for delivering curriculum as well as pages with questions to gauge learner comprehension. Lesson pages can support individualized learning by allowing learners to choose their own navigation path between your pages and assessments. They can also allow different navigation paths for learners based on their correct or incorrect responses to questions (e.g. incorrect responses lead to further information pages to correct misunderstandings).

It is very important to make sure all of your lessons incorporate some method of post-assessment that provides evidence of full learner participation. This is because if you don't use strategies to track and measure participation and learning, it's likely that many of your learners will not spend sufficient time completing your online lessons.

For example, if you're using blended or flipped instruction and want your learners to complete an online lesson before coming to class, you must use post-assessment to ensure

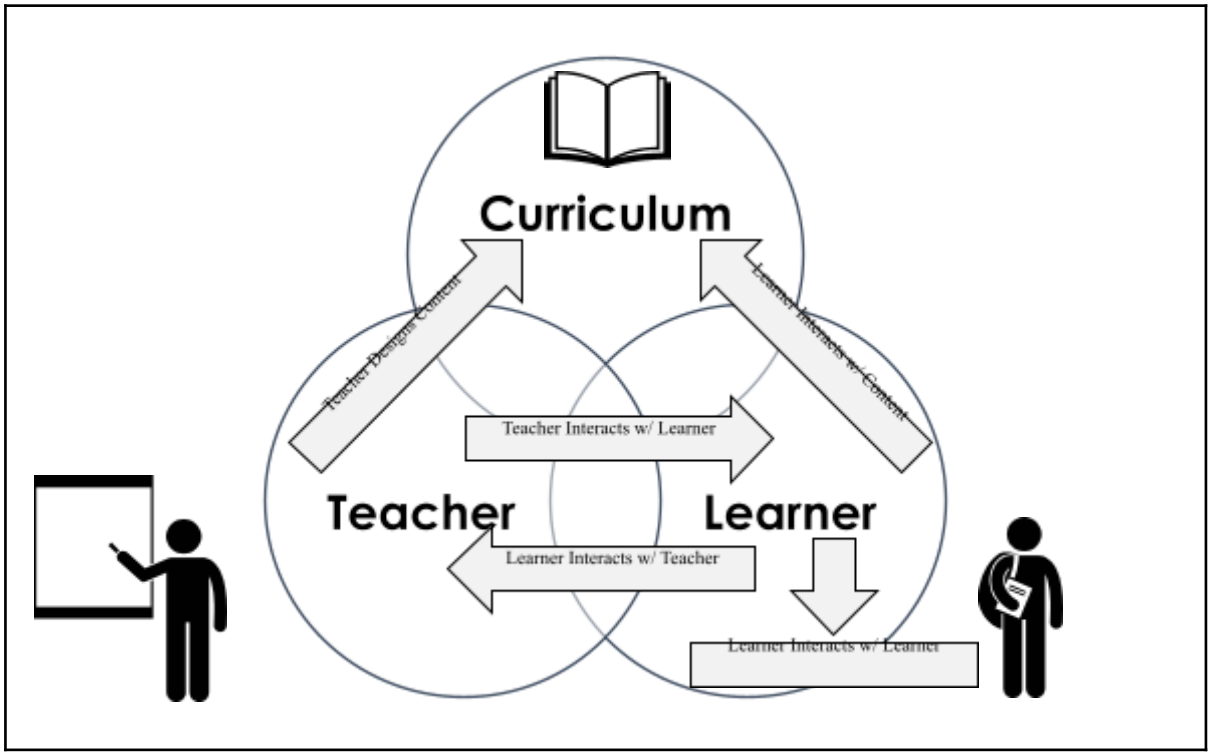
they fully complete the online lesson before attending your class. For more information about tracking participation and designing for learner accountability, see the Online Participation section below.

Designing Online Tasks and Activities

When following the backwards design process to ensure instructional alignment, after your outcomes and assessments have been designed, you need to plan how your learners will develop the knowledge, skills, and values targeted by your outcomes and assessments—that is, you need to plan what activities and tasks will help your learners practice and meet your outcomes at the highest level of competency they are able to achieve.

One of the most common mistakes that new online designers make is to overlook opportunities for interaction and active learning in their lessons and courses. Such designers often use the course website primarily for transferring curriculum through readings and direct instruction (e.g. eLectures, videos…) without addressing the need for learners to practice and apply the curriculum in authentic and meaningful ways that include multiple opportunities and directions for interaction. The figure below demonstrates such directions for interaction that are possible during online tasks and activities.

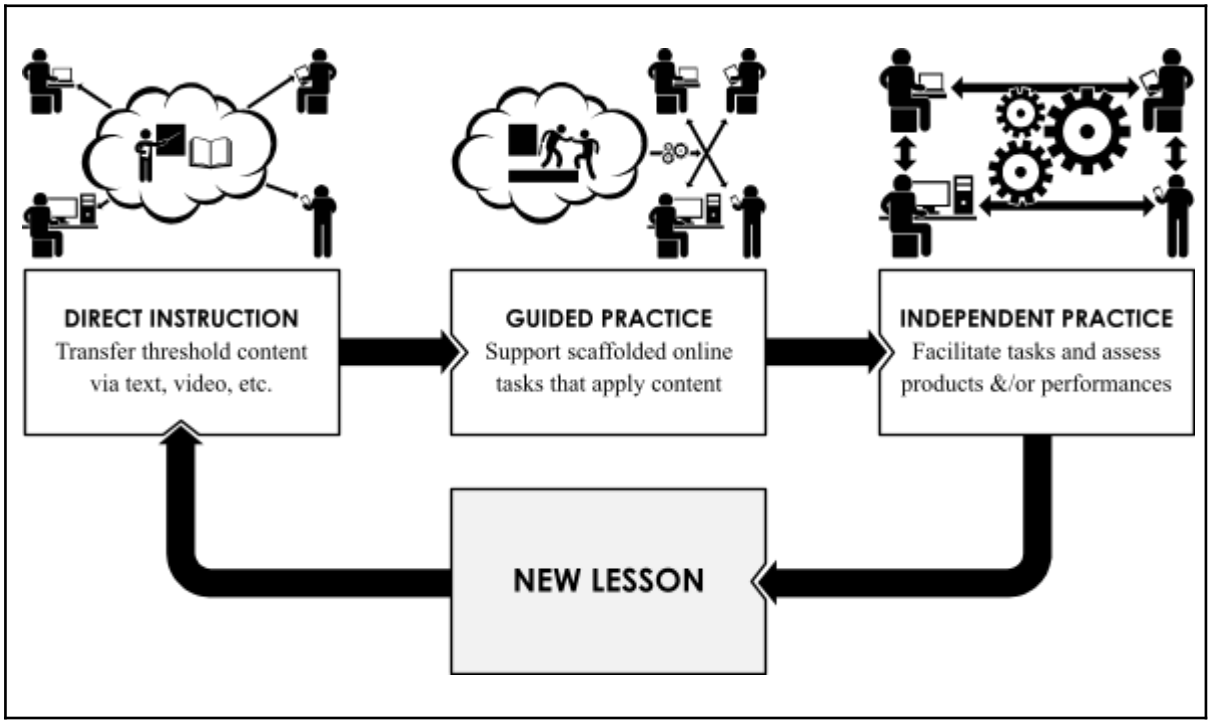
Figure 16: Directions of Learning Interactions in a Course



Experienced online designers recognize not only the need to transfer curriculum—i.e. have learners interact with course content—but also the need to incorporate tasks and activities that encourages learners to interact with each other, the teacher, and their own thinking, for instance through reflective and self-evaluative activities. Experienced designers also carefully

sequence these tasks and activities to build in complexity towards higher-level course competencies. They do this, for instance, by moving through different levels of instruction like those illustrated in the table below.

Figure 17: Levels of Instruction in the Online Environment



To help your learners practice and apply the curriculum in your lessons, it is important that you incorporate varied online learning tasks that build in complexity towards independent practice. Initially, you will likely need to transfer curriculum through direct instruction to give your learners a basic understanding of the targeted concepts, skills, and values. You can then design scaffolded tasks that include lots of supporting resources (e.g. directions, steps, examples, templates, checklists…). Finally, you can design open tasks that allow your learners to use the targeted concepts, skills, and values independently with no or fewer supports.

To help you design different learning tasks, there are many tools in the LMS that give learners opportunities for active learning and interaction, including forums, wikis, chats, lessons, groups, and so on. There are also many different online activities and strategies you can choose from.

The following list is a sampling of activities from a book called Empowering Online Learning (Bonk and Zhang, 2008). It lists many different online learning tasks that are divided into different ways that learners interact with the curriculum content: reading/listening, reflecting, displaying, and doing.

Table 9: Example Online Learning Activities Using the R2D2 Model

Activity	Description
READING/LISTENING	
Scavenger Hunt	Individuals or groups are asked to find a set of items in a list or accomplish a set of tasks (e.g. search the internet, find items in course site…).
Web Tour	Videos and pictures are provided guide learners through a resource (e.g. course site, text, webpage…).
Guided Readings	Texts and webpages are provided with questions and hints (e.g. LMS lesson tool can sequence readings and questions).
Discovery Readings	Students are asked to find and review their own readings that are relevant to the course (e.g. post your review to forum, wiki, or drop box).
Frequently Asked Questions	Students are asked to post questions relevant to the course; they can also be asked to answer the questions of their peers (e.g. FAQ forum).
Question-and-Answer Sessions	Students are asked to share concerns, issues, and questions with the instructor using email, chat or online discussion forums.
Online Expert Chats	Learners use a synchronous communication tool (e.g. chat, videoconference…) to ask an invited expert questions.
Live Instruction or Webinar	Teacher instructs in real-time using a videoconferencing or webinar tool (e.g. BigBlueButton).
Public Tutorials	Learners are asked to use a tutorial from the internet.
Expert Lectures	Learners are asked to view an expert lecture on the internet.
eLecture	Teacher instructs through instructional videos.
Audio Drama	Learners are asked to listen to audio recordings of scripted conversations or scenarios using actors.
Video Demonstrations	Teacher demonstrates skills or tasks using recorded video (e.g. math problems, physical tasks…). Tablets with a screen and audio recording app may be handy in recording instructor writing and narration.
Webliography	Learners are asked to find and post important resources that are relevant to the course curriculum (e.g. a wiki with a list of topics and links)
eBook Reports and Critiques	Learners are given different eBooks related to the curriculum that they must review and/or critique.
REFLECTING	
Reusing Expert Chat Transcripts	Learners are asked to review old transcripts from experts and their different answers, perspectives, and opinions about course topics.
Self-check Quizzes	Learners are asked to review their knowledge with formative quizzes. Quizzes can be retaken to repeat and reinforce learning.
Class or Group Forums	Learners are asked to discuss topics and ideas in a forum with structured directions and expectations. Forums can be open to the class or teams/groups.
Observing Online Groups	Learners are asked to observe and reflect on interactions within a relevant online social network or community forum.
Personal or Team Blogs	Learners are asked to regularly post diary reflections or articles in a personal blog. The blogs can be personal or maintained by a group of learners.
ePortfolios	Learners are asked to post their learning products from the course in an ePortfolio, where they add reflections on their academic and professional growth.
Individual or Group Reflection Papers	Learners are asked to write different types of reflections, including summaries of articles, pro-and-con papers about a theory or model, one-minute or muddiest point reflections about their what they learned or are confused about, etc.
Online Cases	Learners are asked to review and respond to an online case study.
Special Interest Groups	Learners are divided into groups based on individual interests and asked to discuss topics, develop resources, and so on.
Small-Group Case Creation	Learners are asked to develop their own case studies related to the curriculum that are based on real-world situations and require analysis and decision-making.
Student Exam Questions	Learners are asked to develop quality exam questions that can be used in exams.
Reaction or Position Papers	Learners are asked to write reaction or position papers to different controversies, dilemmas, quotes, or trends in the news.
DISPLAYING	

Anchored Instruction with Video	Learners are asked to review a short video clip that is used as an anchor or reference for questions and analysis.
Concept Mapping	Learners are asked to create a concept map connecting main ideas from the course or their own research tasks.
Online Timeline	Learners are asked to review or produce an online timeline that describes events through history.
Video Modeling	Learners are asked to review video of real-world practitioners modeling tasks relevant to the course curriculum.
Movie Reviews	Learners are asked to watch and respond to an online movie that is relevant to the curriculum in course.
Video Blogs	Learners are asked to record themselves in the community reflecting on ideas or completing tasks relevant to the course.
Charts and Graphs	Learners are asked to review or make charts and graphs.
Online Multimedia	Learners are asked to review or interact with multimedia or learning objects.
DOING	
Web-based Survey Research	Learners are asked to use online survey tools to collect and display data relevant to the course.
Group Role Plays	Learners are asked to script and record role plays that illustrate concepts, skills, or values in the course. Screen recording and videoconferencing software can be used to record virtual discussions and interactions.
Action Research	Individuals or groups are asked to conduct field research to examine one or more questions or issues.
Real-time Cases	Learners are asked to address real-world problems or issues as they occur in the community. Teachers must create relationships with organizations or companies and develop questions or issues that needs to be researched and solved.
Course Wiki	Learners are asked to contribute to a class wiki by creating individual pages and providing feedback to the pages of their peers.
Wikibook Projects	Learners are asked to create book sections that are collated into a larger wikibook.
Online Glossary	Learners are asked to contribute to a class glossary of terms and/or links relevant to the course.
Digital Storytelling	Learners are asked to script and produce a video with various multimedia that shares a story relevant to the course curriculum that can be instructional, informational, historical, or autobiographical.
Online Documentation of Internships, Practicum…	Learners are asked to document their experiences when they complete an internship or practicum.
Authentic Data Analysis	Learners are asked to access online data repositories to ask and answer research questions by analyzing data and displaying results.
Simulation Games	Learners are asked to interact with an online simulation game (e.g. interactive learning object) that explains and applies curriculum relevant to the course.
Client Consulting	Learners are asked to provide course-related consulting support to local organizations or businesses.
Cross-class Product Development	Learners are teamed with students from another course to create integrative learning products (e.g. environmental, marketing, and engineering students create and market environmental product)
Learner Demonstrations	Learners are asked to make videos demonstrating a presentation or performance relevant to the course curriculum.

(Adapted from Bonk & Zhang, 2009)

As the above table illustrates, there are numerous online activities you can choose from to help your learners practice and apply curriculum from your online lessons. When designing your lessons, you need to review the list to find activities that align with your lesson outcomes and assessments. Many of the lessons can also serve as course-level assignments and assessments.

Finding and Creating Online Content

If you are following Backwards Design, a final task for planning your course and lessons is to find, adapt, and/or design the online content that will help to transfer course curriculum to your learners. There are many types of content that you can use, including:

- **Readings:** online textbooks, research papers, organizational documents, websites, etc.
- **Videos:** instructional lectures, demonstration/modeling videos, video clip anchors, movies, digital stories, etc.
- **Websites:** open courses, MOOCs, social networks, data repositories, etc.
- **Interactive learning objects:** animations, charts, quizzes, etc.

Finding content may take a while depending on your topic and language, so it's a good idea to share your resources and sources with other instructors. There are several strategies you can use to find quality online content for education:

- **Find open online courses:** There are numerous online courses that are open to the public. These courses can be good sources for inspiration and content.
- **Find learning object repositories:** Many universities and educational organizations have online databases of learning objects that are categorized by subject. These learning objects might be documents, websites, textbooks, interactive Flash/HTML5 objects, videos, etc.
- **Search research databases:** Research databases can be good sources for papers, books, and textbooks. If you are at a university that pays for free access to academic journals and books, you may be able to save your learners money for texts by using a freely accessible online book.
- **Search the internet:** Search engines like Google and Bing allow you to use search operators that can help you find academic content or different types of files. You can search different types of files (e.g. filetype:pdf, filetype:doc, filetype:ppt…), or for different topics (e.g. intitle:"Lesson/Course Topic"), or from different website domains (e.g. inurl:edu, site:domain.com). Using all of these search operators together can make finding content much easier and faster.

Many of the sources you find may be Open Source and/or licensed using Creative Commons. If the resources you find are covered under Creative Commons, than you'll be able to freely copy-paste them or redistribute them in your course site. If they aren't, than you'll need to link to them from your course site and/or cite information from the resources to design your own resources.

During the workshop, you'll have time to look for sources content with other participants. It's a good idea to write down websites and sources so you can remember them after the workshop. Below is a table of example sources for open educational content that you can use in your courses. Please note that they are primarily in English, and the links to these resources may have changed since the time of writing this manual.

Table 10: Example Sources of Open and Creative Commons Educational Content

Lists

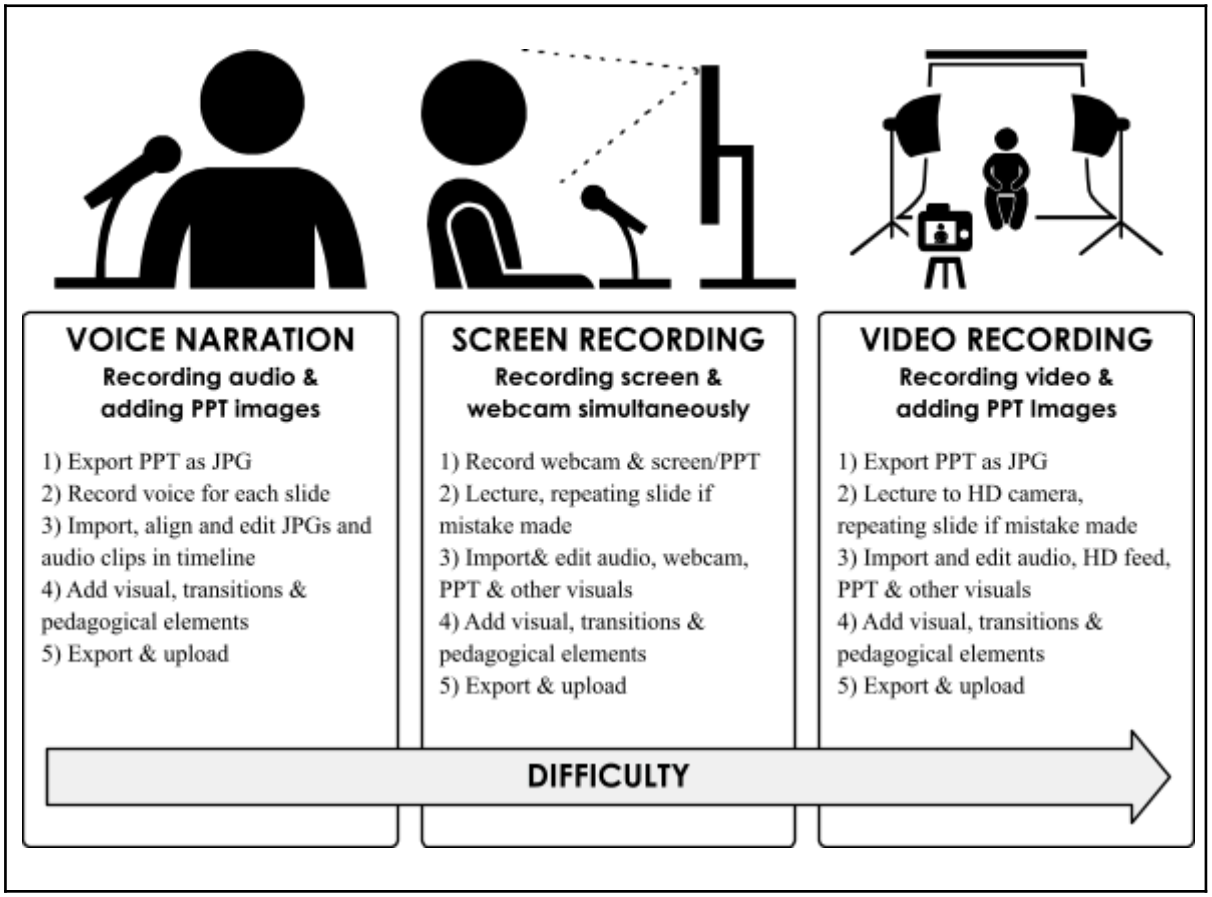
List of MOOCs	https://en.wikipedia.org/wiki/Massive_open_online_course
List of Education Videos	https://en.wikipedia.org/wiki/List_of_educational_video_websites
List of Research Databases	https://en.wikipedia.org/wiki/List_of_academic_databases_and_search_engines
List of Digital Libraries	https://en.wikipedia.org/wiki/List_of_digital_library_projects
Creative Commons Search	https://search.creativecommons.org/
Examples	
Merlot *merlot.org*	"MERLOT is a curated collection of free and open online teaching, learning, and faculty development services contributed and used by an international education community."
OER Commons *oercommons.org*	"OER Commons is a dynamic digital library and network. Explore open education resources and join our network of educators dedicated to curriculum improvement."
Open Textbook Library *open.umn.edu/opentextbooks*	"Open textbooks are textbooks that have been funded, published, and licensed to be freely used, adapted, and distributed. These books have been reviewed by faculty from a variety of colleges and universities to assess their quality."
OpenStax CNX *cnx.org*	"There are tens of thousands of learning objects, called pages, that are organized into thousands of textbook-style books in a host of disciplines, all easily accessible online and downloadable to almost any device, anywhere, anytime."
College Open Textbooks *collegeopentextbooks.org*	"Our mission is to drive awareness, adoption, and affordability of open textbooks. Our focus is on community colleges and other 2-year institutions of higher education and the first two years (lower division) of 4-year institutions."
MIT OpenCourseWare *ocw.mit.edu*	"MIT OpenCourseWare makes the materials used in the teaching of almost all of MIT's subjects available on the Web, free of charge. With more than 2,400 courses available, OCW is delivering on the promise of open sharing of knowledge."
Athens Project *athens.algonquincollege.com*	"Save and share all sorts of digital content."
Saylor Academy *www.saylor.org*	"Saylor Academy is a nonprofit initiative working since 2008 to offer free and open online courses to all who want to learn."
Khan Academy *khanacademy.org*	"Our mission is to provide a free, world-class education to anyone, anywhere."
Directory of Open Access Journals *doaj.org*	"DOAJ is a community-curated online directory that indexes and provides access to high quality, open access, peer-reviewed journals."
Free Documentaries *freedocumentaries.org*	"Freedocumentaries.org streams full-length documentary films free of charge, with no registration needed. For several films, we even offer the ability to watch trailers or to download the actual film."

Creating Your Own Video Lectures

If you are designing a course that you've already taught face-to-face, it's likely that you have a set of lectures you've used to transfer content to your students. Even if you don't have existing lectures, you may want to create them, especially if you're having a hard time finding relevant online content for your lessons. In either case, you can create your own video lectures and upload them to your LMS.

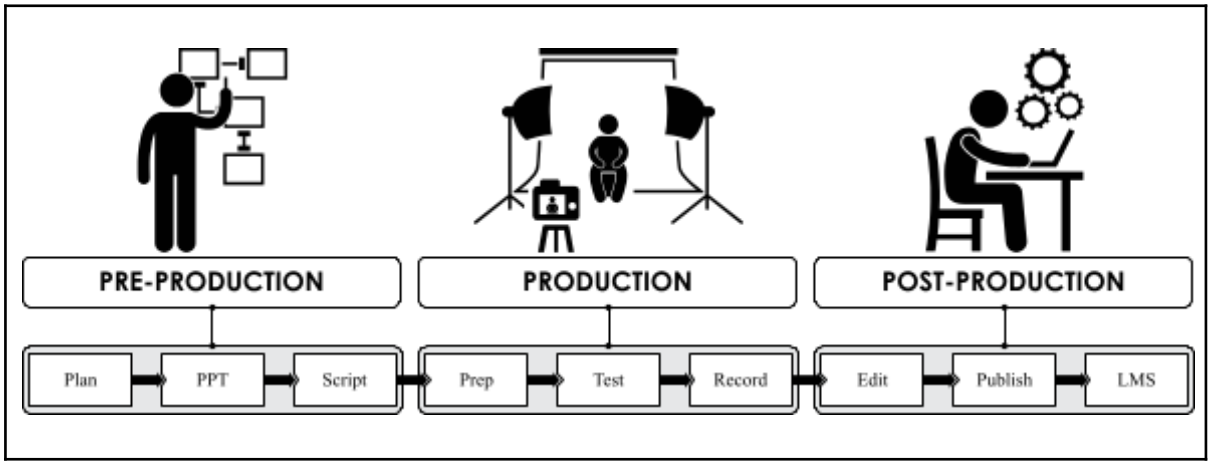
The process of creating online video lectures (eLectures) varies depending on the type of video you want to make and the overall quality you're trying to achieve. The figure below illustrates three different recording methods that you might want to try.

Figure 18: Difficulties of Different eLecture Recording Processes



Although each of these processes will result in a different type of instructional video, they all require a similar workflow to produce. The figure below demonstrates a production workshop for designing eLectures, which includes various tasks you need to complete during pre-production, production and post-production.

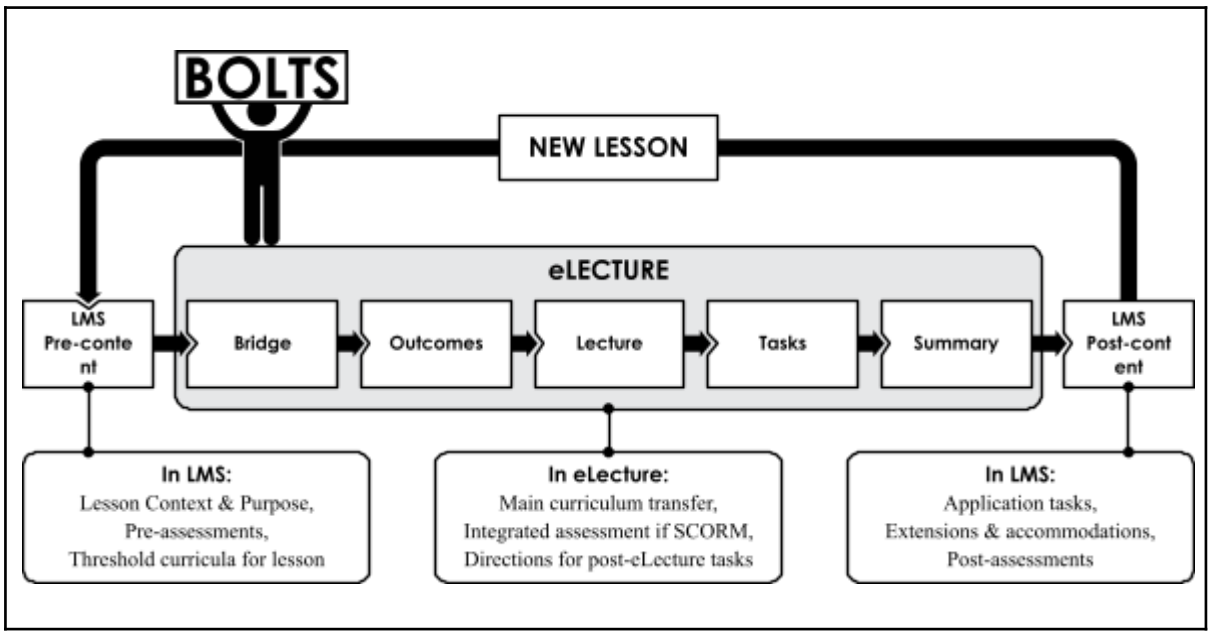
Figure 19: Example eLecture Production Workflow



You can apply a slightly adapted BOPPPS model when you're planning and scripting your eLecture so that your lecture has the following elements:

- **Bridge:** Begin with a strategy that engages your learners and explains the purpose of your lecture;
- **Outcomes:** Share the outcomes that learners will be expected to achieve during the lecture;
- **Lecture:** Present the curricula you'd like to share using text, audio, graphics and/or video;
- **Tasks:** Describe the types of activities you'd like you learners to complete after watching the lecture; and
- **Summary:** Reemphasize the lesson's purpose and outcomes, and use a strategy to promote retention and application of key concepts, skills and/or values from your lecture.

Figure 20:BOLTS eLecture Structure Integrated in an LMS (Adapted BOPPPS)



Once you've produced your video using a model like BOLTS, you can remove mistakes and add extra elements like titles and callouts during post-production. Finally, you can export your video and upload to a site like YouTube, which can be streamed through your LMS.

If you'd like to learn more about video production and lecture capture, you should ask your facilitators what other training and resources are available at your institution. It is likely that there are support staff and equipment that can help you improve the quality of your eLectures, so you might also ask who can help you the first time you try to record.

Module 3 Review

In this module, we examined how you can break up your course into lessons so you can design them methodically in your LMS using a consistent structure like POTRR. You should now be able to design online lessons that are instructionally aligned with course outcomes, that encourage active learning using tasks like those in the R2D2 model, and that use varied assessment strategies to measure learning. We also reviewed where you might find appropriate online content to add to your lessons, as well as how you can design your own videos to add your own content via eLectures.

Now that we know how to design course sites and online lessons, in the next section, we'll look more closely at how you can implement flipped and blended instruction.

Module 4: Flipping and Blending Instruction

Module 2 Outcomes

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

- Illustrate how to structure and plan a face-to-face class in a flipped course to support higher level learning-by-doing tasks;
- Describe and use various active learning tasks in a face-to-face lesson to promote learner practice, application and engagement;
- Explain different ways a blended course might be designed;
- List different transitional tasks you might perform when connecting online and face-to-face lessons; and
- Apply face-to-face lesson models like BOPPPS and CARDS between online lessons in a blended course.

If you recall the figure on page that shows different ways you can use an LMS, you might remember that you can use a course website to supplement instruction, to flip instruction, to blend courses or to teach fully online.

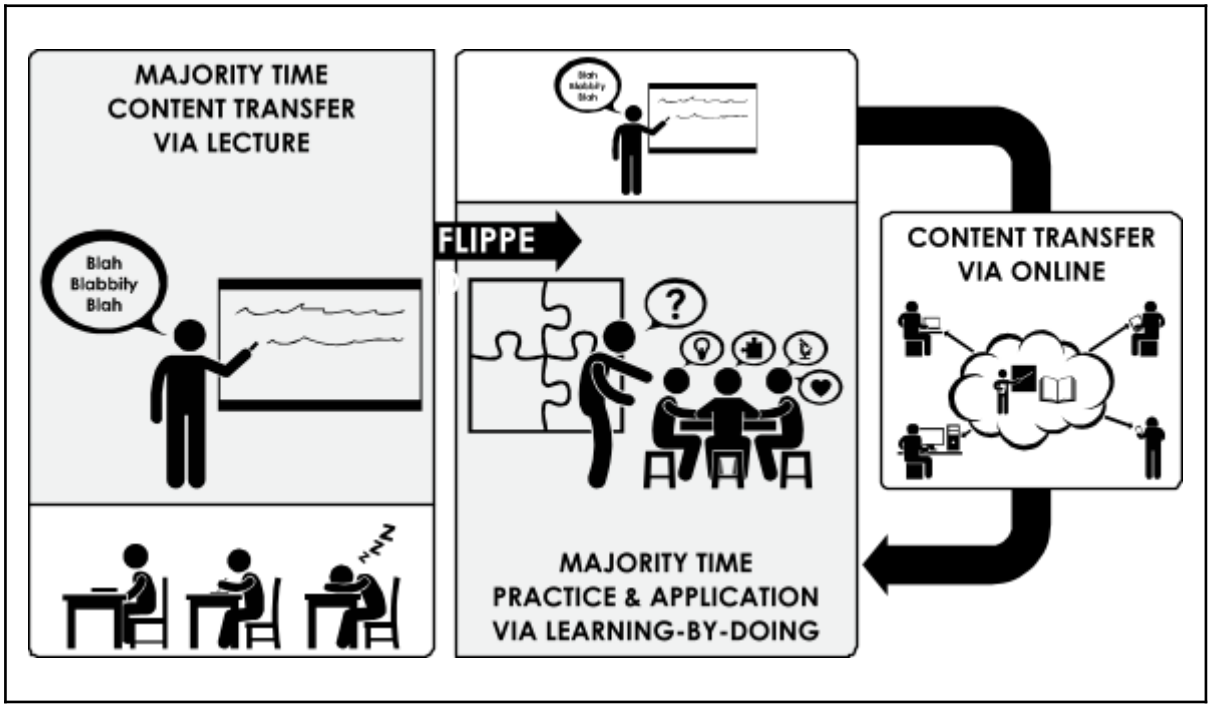
Up until now in the manual, we've explored how to design online courses and lessons in an LMS. Although these skills are necessary no matter how you plan to integrate online learning in your course, if you are hoping to flip or blend your course, there are additional strategies you might consider trying. In this module, we'll look in greater detail how you can mix face-to-face classes and online classes for flipped or blended instruction.

Designing for Flipped Courses

Perhaps one of the biggest impacts using an LMS can make on your face-to-face instruction is to help you flip your classroom. As illustrated in the figure below, flipped instruction is when in-class direct instruction (especially lecturing and rote memorization) is moved into the online environment, creating more time for in-class experiential activities that allow learners to practice and apply the curriculum. Flipped instruction is one strategy that can turn teacher-centered courses—where teachers focus on content transfer and are often the most active while learners are the most passive—into learning-centered courses that emphasize learning-by-doing activities.

Like supplemented courses, most flipped courses still have 100% face-to-face class time, but where supplemented courses use LMS tools to support traditional instruction, flipped courses use online lessons that are specifically designed to reduce face-to-face lecture time and increase time for learning-by-doing. Course sites designed for flipped instruction are therefore more thorough than supplemented course sites because they need to include online lessons that support in-class learning-by-doing activities.

Figure 21: Flipping a Traditional Class to Make Time for Learning-by-doing



To flip your classroom, you need to first determine which content in your course should be moved online. For example, you might review your face-to-face lectures for threshold facts, concepts, theories or processes that require rote memorization from learners. Time spent explaining these threshold ideas in class can be saved if they are moved into eLectures or other online media. This time can be used instead making learners practice and apply the ideas using learning-by-doing tasks.

After determining which content should be moved online, you need to design your online lessons using the principles and strategies reviewed earlier in the manual. You start by designing an online pre-lesson with the threshold curricula you normally lecture. You can follow POTRR for the pre-lesson, but it's very important that the pre-lesson incorporates strategies that ensure participation so you know learners will complete it before attending your face-to-face class. For example, you can use a tracked forum discussion and graded online quiz after learners complete your eLecture and readings.

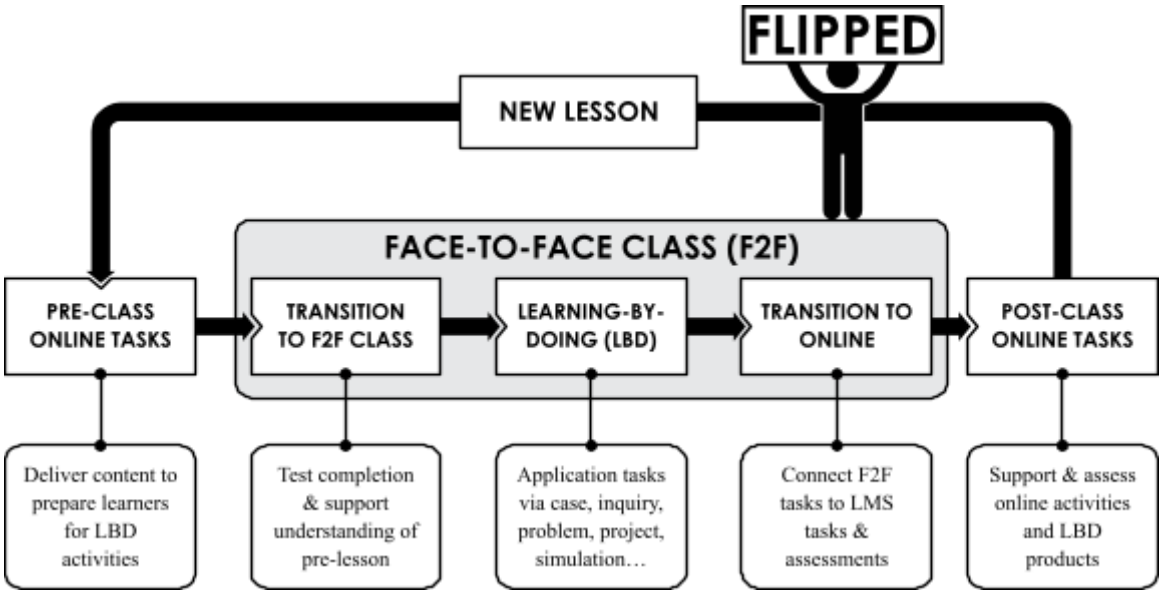
After you design your pre-lesson, you then design in-class activities and learning-by-doing assignments that help learners actively use the online content they learned prior to class in meaningful ways. The following section will help you think more about how you can design your in-class experiential activities and learning-by-doing tasks, but you should ask your facilitator for more resources and information if you'd like to learn more about specific types of learning-by-doing models like case-based learning, inquiry-based learning, problem-based learning and project-based learning.

Once your face-to-face class is planned, you need to think about how you can extend the face-to-face activity back into the online environment. For instance, if you ask learners to create a product or performance after they complete their learning-by-doing activity (e.g. a report, a presentation, a mind map, a designed product…), you might then create online

forums, wikis, assignment drop boxes, etc., in the LMS to facilitate the learners while they complete that task.

As shown in the figure below, when your flipped lesson is completely designed, you might end up with five different parts to your lesson, including 1) pre-class online tasks that teach threshold ideas, 2) transitional activities that bridge the pre-class online activities to the face-to-face class, 3) learning-by-doing tasks that target higher learning levels (e.g. application, evaluation, creation…), 4) transitional activities that bridge the face-to-face tasks to post-class online tasks, and 5) post-class tasks that continue learner interactions and activities in the course's LMS.

Figure 22: An Example Flipped Lesson Integrating Online and Face-to-face Delivery



1) Pre-class online tasks: Prepare learners for in-class learning activities with lessons that include reading/listening/hearing/watching threshold curricula and completing related online tasks and assessments.

2) Transition to face-to-face class: Activate prior knowledge from pre-class tasks, pre-assess for completion and confusions, ask/answer questions, and describe context and expectations of face-to-face task(s).

3) Face-to-face lesson: Facilitate tasks that extend pre-lesson curricula and lead to a higher-level product or performance, for example, by facilitating case-, inquiry-, problem-, or project-based learning that allows you to observe interactions and give feedback on learning processes, products or performances.

4) Bridge to online: Connect face-to-face learning tasks to post-lesson activities and tools in the LMS that continue learner interaction towards formation of learning-by-doing product or performance.

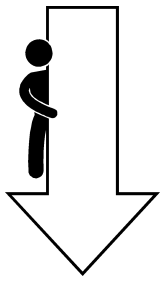
5) Online post-lesson: Facilitate online activities and assessments that continue and complete in-class product or performance task.

Although this section reviewed how you can plan and structure a flipped lesson, we have not yet reviewed how to design learning-by-doing tasks that target higher learning levels. The following section will briefly review different activities you might try.

Designing Face-to-Face Learning-by-doing Tasks

Below is a table that differentiates learning tasks by different ways that learners can interact with curriculum, including reading, seeing, hearing, watching, doing, and teaching. These modes of interaction and their associated tasks and media build in complexity, and if they are properly sequenced in a course, they can help learners demonstrate increasing levels of mastery of your course competencies.

Figure 23: Levels of Learner Interaction with Curriculum



Increased Mastery

Reading	Text, Document, Web page, Article
Seeing	Graphic, Image, Graph, Illustration
Hearing	Lecture, Discussion, Audio, Webinar
Watching	Demonstration, Instruction, Video, Animation
Doing	Simulation, Lab, Scenario, Case, Problem, Inquiry
Teaching	Peer Mentoring, Peer Instruction, Peer Assessment

(Adapted from Bersin, 2004)

The table above illustrates that when you design in-class learning tasks that encourage mastery of the curriculum, you should be designing tasks that encourage learners to **do** things with the content (i.e. hands-on, learning-by-doing tasks) and/or **teach** the content to each other. Ideally, when designing a flipped class, you make your learners read, see, hear and watch threshold curricula online prior to your face-to-face class. Having interacted with the curriculum at lower learning levels online, your learners should then be ready to apply the curricula through doing and teaching in your face-to-face class.

Although you'll likely need to fix confusions and provide support when transitioning from online to face-to-face tasks, in a flipped class you are no longer lecturing content but instead facilitating learning. As a **facilitator of learning**, you support learning activities, answer questions, provide just-in-time help, coach learners in using effective processes and strategies, and encourage learners to take risks and try new things. Of course, you'll still need to provide instruction, but your role as a teacher shifts from transferring content to helping learners practice, apply, do and create.

There are various types of activities you can plan for your face-to-face lessons, some examples of activities you might try are in the following table. The duration of these activities varies, so some of the examples may take only part of a class while others may span over many classes. Case-based learning, for example, can take only one class if it includes a shorter, simpler case, or it may span multiple classes if it is a longer, more complex case. The same is true for other types of learning-by-doing like problem-, inquiry-, and project-based learning.

Table 11: Example Active Learning Tasks and Strategies

Strategy	Description
Case	• *Teacher provides a real professional case that might have varying responses or answers* • *Students decide how they would respond to the case and justify their thinking*
Problem	• *Teacher gives a problem that requires a solution* • *Students discuss the problem and decide how best to solve it*
Experiment/Inquiry	• *Students and/or teacher design an experiment that might answer an unknown question* • *Students conduct the experiment and present results*
Product design	• *Students design, implement, and evaluate a physical model or product to fill a given need or market*
Role Play	• *Teacher provides a scenario or story and the students role play the different people or characters*
Simulation	• *Teacher provides a real-world experience* • *Students illustrate how they would act or respond*
Debate	• *Teacher provides opposing views for students to choose from and defend*
Interview	• *Students interview each other or a guest on a provided topic* • *Students can then hand in notes or report or share results with class*
Peer Coaching	• *One student tries a skill while the other questions and provides advice* • *Then the partners switch, allowing other student to try/give advice*
Jigsaw	• *Teacher splits a larger task into smaller tasks or pieces for different students to complete* • *Students can present their piece to the class and/or the teacher can put them all together to share it as a whole to the class*
Graffiti	• *Teacher displays questions, prompts or work around the room for students to observe and discuss* • *Students rotate and leave written responses*
Fishbowl	• *Students or guests perform an act (e.g. role play, discussion, etc.) while the class watches and writes their response* • *Other students share their responses after the group is finished*
Gallery Walk	• *Students show ideas or work at different areas of a room* • *Groups of students rotate to discuss and leave feedback*
Mind Map	• *Students draw one to show their understanding of a topic by listing and connecting its components* • *Students can hand it in, share it with peers, or present it to the class*
Think-Pair-Share	• *Teacher poses a question and asks students to write thoughts individually* • *Pairs of students discuss their ideas and share to the class*
Corner Call	• *Teacher assigns a response to a question or prompt to each corner or room* • *Students choose and move to a corner for discussion and sharing*
Student Questions	• *Students are given time to write the best questions they can about a topic*

	• *Teacher includes the questions on a class test or quiz*
Quiz-Quiz-Trade	• *Teacher gives students a different question card* • *Students pair up and quiz each other, then switch cards and switch partners*
Value Line	• *Student choose how much they agree with a statement from 1-100 and stand in an imaginary line that represents 1-100* • *Teacher questions students about their chosen position* • *Students can change their position based on responses*

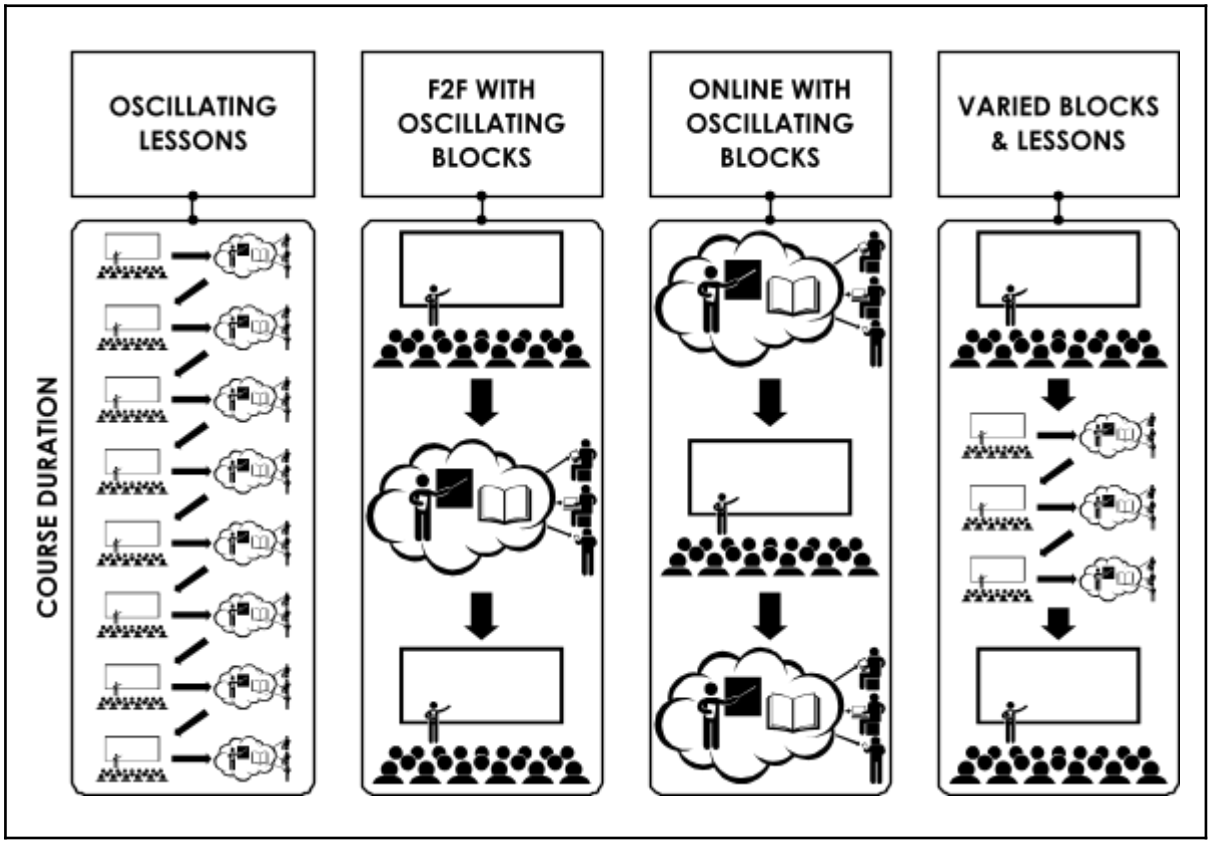
Designing for Blended Courses

As mentioned in the first module, the purpose of blended learning is to reduce face-to-face instructional time by designing online lessons that take the place of classes. This is useful for both learners and teachers because it provides:

- **Different possible interactions for learners:** Blended learning gives learners new opportunities to interact virtually with the instructor, other learners, and the curriculum outside of class times;
- **Different tools and strategies for teachers:** Blended learning also gives teachers new tools and strategies to communicate with their learners, including providing direct instruction outside of class times; and
- **Different delivery models for program and course designers:** Blended learning gives designers more choice and versatility in how they design programs and courses, for instance by improving efficiencies and standardization of how high-demand first-year courses are delivered.

Blended learning can look very different depending on when and how often online lessons are integrated in the course's design as well as which online tools and strategies are used in the course website. In the figure below, four example models illustrate how designers can design a blended course in different ways. The first uses oscillating lessons that go back and forth between face-to-face and online delivery. For example, if each week includes two classes, you can teach both ways each week to reduce your face-to-face class time by half.

Figure 24: Example Delivery Models for Blended Courses



The previous figure also demonstrates how you might design a course using oscillating blocks rather than lessons. For example, you might start a face-to-face course with a block of regular classes for a month, then teach online for a month, and finally finish the course with another block of face-to-face classes. As another example, you can also reverse the order of the blocks by designing an online course that has a block of face-to-face instruction in the middle.

Each of these models demonstrates how blended courses can vary, but it's important to recognize that your ultimate design should make the most sense given your program and course competencies and your learners. This means that you should make your blended course meet the specific needs and contexts of your program, and you can do this by varying the blocks and lessons as needed, as illustrated in the rightmost side of the previous figure.

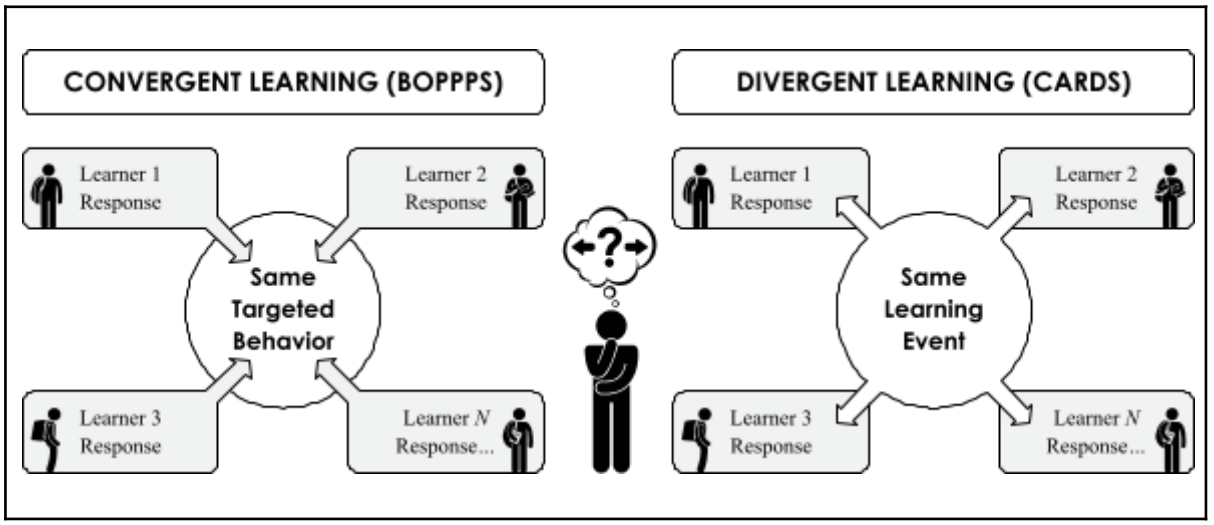
Using BOPPPS and CARD in Blended Courses

In the previous module, we reviewed online lesson design, including how you can use POTRR to structure your LMS lesson sections and BOLTS to structure your eLectures. If you recall, POTRR and BOLTS are online adaptations of the face-to-face lesson model BOPPPS. BOPPPS is taught in Instructional Skills Workshop and is itself an adaptation of Robert Gagne's nine levels of instruction. BOPPPS and Gagne's model are effective at designing outcomes-based lessons that target specific, standardized behavioral changes in learners.

When designing your face-to-face lessons in a blended course, you can use the BOPPPS model to help you focus on outcomes-based active learning that targets specific behaviors

and learning levels using Bloom's Taxonomy. You may also choose to use the CARDS model, which is a second model taught in the Instructional Skills Workshop.

Figure 25: Comparison of BOPPPS and CARDS Models



CARDS differs from BOPPPS in several ways, and it is used for different instructional purposes. Where BOPPPS is used for **convergent learning** (i.e. when you want all your learners to demonstrate the same learning behavior as described be your learning outcome), CARDS is used for **divergent learning**. Divergent learning means that your learners will likely react to a learning event in different ways because the event is meant to elicit personal thinking, personal beliefs, personal values, and/or personal creativity. Learning events in CARDS help learners reflect, express, and create their own ideas and learning products inductively—that is, they express their learning differently based on their individual experience of life and reality.

Because CARDS tries to make learning experiences personal, it is a useful model for teaching in the affective domain when you want to get learners to share their personal feelings and values. It can also be a useful model for teaching in the higher levels of the cognitive domain, for instance, when you want learners to evaluate course concepts and theories based on their personal experiences or to use course concepts and theories to create something that reflects their personal experiences.

Table 12: The CARDS Lesson Planning Model

Lesson Element	Purpose
Context	● Outlines purpose, importance, and expectations of the activity ● Engages the learner's attention about the activity ● Provides information needed for learner to fully participate in the activity
Activity	● Provides a learning event that incites or encourages personal thinking, expression, and creativity

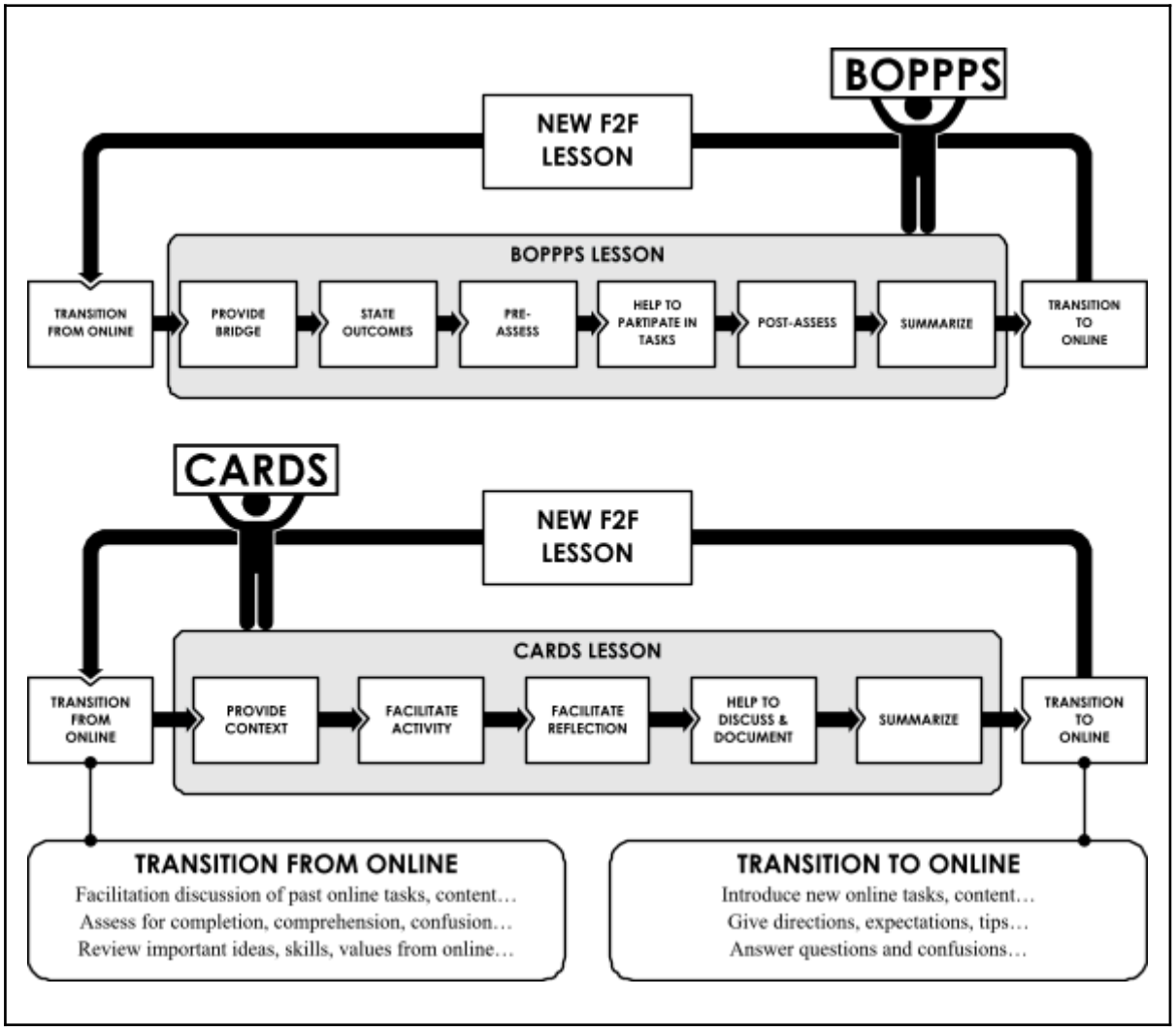
	• For example, share a news article, describe a case, give a problem, give an inquiry question, demonstrate a scenario or role play, etc.
Reflection	• Provides learners opportunity to think about an individualized response to the activity
Discussion and/or Documentation	• Provides learners opportunity to discuss and/or document their thinking individually, in groups, and/or with class • Can include a product or performance task that documents learners' thinking, choices, creativity, etc. • For example, a journal reflection, a case analysis, a problem solution, results of an inquiry process, etc.
Summary	• Highlights important contributions, ideas, and products from learner discussion and documentation stage • Connects lesson to future lessons, assignments, or practice • Encourages continued application and learning of new concepts, skills and values from lesson

The table above describes the elements in the CARDS model. You might note that there is no reference to an explicit outcome like in the BOPPPS model. As a constructivist model, CARDS uses **expressive outcomes**, which describe a learning process that targets individualized, personal and creative responses rather than describing a specific and standardized behavior like in BOPPPS.

Although CARDS has no explicit stage for outcomes like in BOPPPS, you can still share your expressive outcomes with your learners—for instance, during the context or summary stages—but you don't have to. In fact, if you think that sharing your expressive outcomes will limit your learners' ability or desire to share their personal thinking or creativity, you shouldn't share your outcomes. In BOPPPS, learners are expected to express behaviors exactly as you want them to. In CARDS, learners should express their own thinking and feelings without saying what they think you want to hear.

Whether you choose to use CARDS, BOPPPS or another model when planning your face-to-face lessons, you'll want to make sure that they integrate well with your online lessons. If you are oscillating between face-to-face and online lessons, for example, you can use transitional activities like discussions, questioning, quizzes and Classroom Management Techniques to connect your face-to-face lessons to online lessons. The figure below demonstrates how this might look.

Figure 26: Using BOPPPS and CARD Between Online Lessons



If you recall how to flip classes, you might want to try to include in-class learning-by-doing activities that work towards higher-level learning outcomes. Ideally, if learners complete lower-level tasks (i.e. reading, seeing, hearing, and watching) during online lessons, they should be better prepared to complete higher-level tasks (i.e. doing and teaching) during face-to-face class time. If you are able to focus on learning-by-doing in your face-to-face classes, then you've successfully designed a blended course that reduces face-to-face instruction as well as a flipped course that increases opportunities for practice and application.

Module 4 Review

In this module, we briefly examined how you can integrate face-to-face lessons with online lessons when teaching flipped and blended courses. From previous modules, you should have a good understanding of how to design good course websites and online lessons, but now that we've looked and flipped and blended lessons in more detail, you should also be able to design and integrate online and face-to-face lessons to promote active learning and learning-by-doing.

If you would like to learn more about learning-by-doing models like case-, inquiry-, problem- and project-based learning, please ask your facilitators what other training or resources might be available at your institution.

Summary

This workshop is an introductory workshop to help you learn to use different strategies and tools within an LMS to supplement face-to-face courses, to teach flipped courses to promote learning-by-doing, to teach blended courses to reduce face-to-face classes, and to teach fully online. When the workshop is complete, you should be able to:

- Differentiate different methods and types of online learning that are possible when designing a course;
- Self-evaluate an online course using different theoretical frameworks and principles like Community of Inquiry and CRAPPIE;
- Use different LMS tools, methodical workflows, and planning models like POTRR and BOLTS to design pedagogically strong course sites and online lessons; and
- Use different active learning tasks, learning-by-doing strategies, and planning models like BOPPPS and CARDS to design pedagogically strong face-to-face lessons for flipped and blended courses.

If you are a beginning teacher or you struggle with technology, presenting, or lesson design, it's important to have realistic expectations and be forgiving with yourself. You hopefully learned a lot from this manual and the workshop, but you'll need to keep working on your skills before becoming an expert online designer and online instructor. Technology is always changing, so revisiting online design training and resources every few years can help you stay current and apply the best tools and teaching methods available.

Besides developing a deeper understanding of online course design, a secondary goal of this workshop is for you to have a deeper appreciation for the importance and complexity of designing and delivering online instruction that promotes active learning. Hopefully, this manual and workshop has given you that sense of the importance and complexity of active online learning. But having a deeper sense of what's possible with online design is only the beginning: it is now your task to apply what you've learned to your teaching practice and continue to develop your own online design skills through authentic practice, reflection, and self-evaluation.

If you wish to learn more about online course design or any other topic related to instruction and your professional development, please ask your facilitator or institution what resources and support are available to you.

Thanks for your participation!

Appendices

Appendix A: Bloom's Taxonomy and Outcomes Review

All of the course and lesson design models in this manual and workshop emphasize the importance of writing well-structured and clear outcomes that follow Bloom's Taxonomy. If you haven't taken Instructional Skills Workshop or taken many education courses, Bloom's Taxonomy may be new to you. This section briefly describes the purpose of Bloom's Taxonomy and how to write learning outcomes that follow the framework.

Bloom's Taxonomy is a framework that categorizes different types (i.e. domains) and levels of learning. These domains of learning are cognitive, psychomotor, and affective:

- The cognitive domain relates to learning concepts and ideas. When you want your learners to memorize, use, or evaluate information (e.g. concepts, theories, facts…), you're teaching in the cognitive domain.
- The psychomotor domain relates learning skills and processes. When you want your learners to learn and demonstrate a skill that can be broken down into a series of tasks or actions, you're teaching in the psychomotor domain.
- The affective domain relates learning values. When you want your learners to demonstrate commitment to a moral or ethical position, perspective, or idea, you're teaching in the affective domain.

Bloom's Taxonomy is a very useful tool because it breaks up each domain into different learning levels that list different verbs that can be used when writing your learning outcomes and planning your tasks and assessments. The verbs are used to help you describe the precise action or behavior you want your learners to practice in your learning tasks and demonstrate in your post-assessment.

When writing outcomes, Bloom's Taxonomy emphasizes careful choice of the verbs we use, because some verbs aren't specific enough to measure learner performance. For example, *learn*, *know* (or *gain knowledge*), *understand* (or *gain understanding*), are often used by beginning teachers and learning designers, but these verbs don't often specifically target the degree or level to which learners should learn, know, or understand the curriculum.

In higher education, many instructors often teach mostly in the cognitive domain, although their emphasis on psychomotor and affective learning might vary depending on their discipline, program, and course. Although your course may emphasize the cognitive domain, when determining your learning outcomes, it's important to design holistically—that is, to look at your course competencies and outcomes and reflect on what your learners should demonstrate in all of the domains.

Table 13: The Three Domains of Bloom's Taxonomy

Cognitive Domain
(thinking, knowledge)

Knowing	Comprehending:	Applying	Analysing:	Evaluating:	Creating:
nembers previously learned material	*usps the meaning of material*	*es learning in new and concrete situations*	*derstands the content and structure of material*	*'ges the value of the material for a given purpose*	*'mulates new structures from knowledge and skills*
ſine	scribe	ply	alyze	sess	)combine
ntify	cuss	ry out	egorize	nclude	)construct
el	plain	monstrate	mpare	aluate	)design
t	cate	strate	ntrast	erpret	velop
me	aphrase	pare	fferentiate	tify	nthesize
call	e example	ve	criminate	ect	n
te	nslate	e	tline	pport	pose

Psychomotor Domain
(doing, skills)

Perceiving:	Readying:	Copying:	Doing:	Honing:	Adapting:	Enhancing:
Senses cues that guide activity	*Mentally, emotionally and physically ready to act*	*Imitates and practices skills, often in steps*	*Performs acts with increasing efficiency*	*Performs automatically*	*Adapts skills to meet a problem situation*	*Creates new patters for specific action*
ar		by	nduct	ntrol	apt	)design
ten	nd	tate	monstrate	ect	cognize	ginate
serve	sition	ctice	ecute	ide	er	)combine
ceive		beat	ke	nage	vise	)compose
cognize	pare	low	duce	ganize	ange	)construct

Affective Domain
(feeling, attitudes)

Receiving:	Responding:	Valuing:	Organizing:	Internalizing:
ectively attends to stimuli	*ponds to stimuli*	*aches value or worth to something*	*nceptualizes the value and resolves conflict between it and other values*	*grates the value into a value system that controls behaviour*
cept	e for	opt	apt	vocate
knowledge	ey	pose	just	fend
ware	mply	mmit	ange	emplify
ten	low	sire	ance	luence
tice		press	ssify	tify
attention		fer	up	pport
erate			ganize	

Writing Learning Outcomes

Using the verbs from Bloom's Taxonomy, it is very easy to write outcomes that target different domains and learning levels. It's a good idea to keep your outcomes well-structured, clear, and detailed. For structure, you can write your outcomes like the following:

By the end of the [lesson, unit, week…], you should be able to:

- *[Bloom verb] + [description of concept, task, or value from curriculum]*
- *[Another Bloom verb] + [description of another concept, task, or value from curriculum]…*

Here's an example:

By the end of this section, you should be able to:

- *List and describe the three domains of Bloom's Taxonomy*
- *Apply Bloom's Taxonomy by writing multiple outcomes that target different learning levels and domains*
- *Evaluate learning outcomes using SMART criteria*

When evaluating your learning outcomes, you can use SMART criteria. If your outcomes meet the criteria and align with your course and program competencies, then you're ready to start planning the rest of your online lesson.

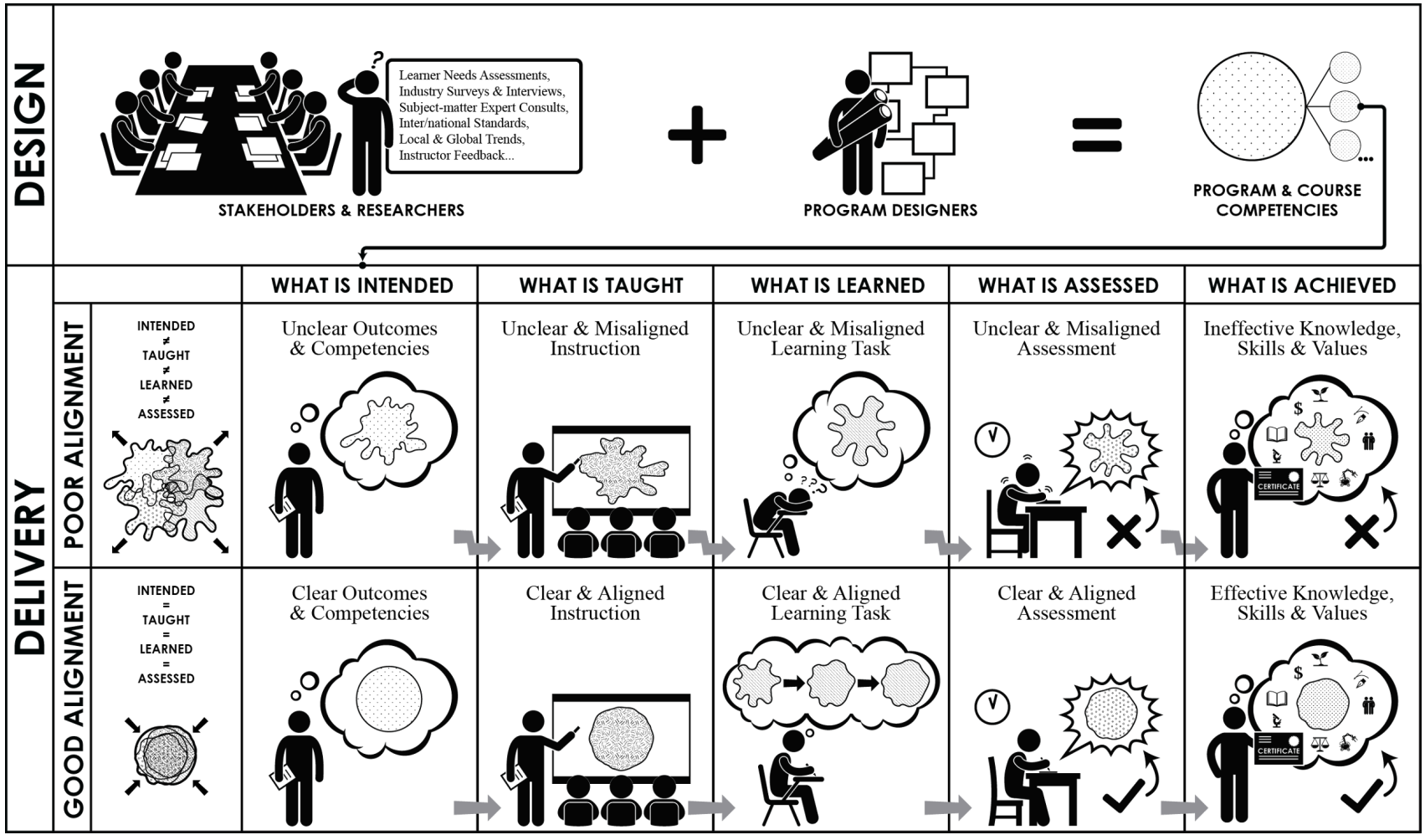
Table 14: Applying SMART Criteria to Evaluate Learning Outcomes

Criteria	Evaluation Questions
Specific	● Does the outcome target a specific learning domain and level? ● Does the outcome go into enough detail about the curriculum item?
Measurable	● Does the outcome describe a behavior, performance, or product that can be witnessed, documented and measured?
Achievable	● Does the outcome describe a behavior that can be achieved given constraints in the learning context (e.g. learner's prior knowledge, curriculum, time, learning environment, etc.)?
Relevant	● Does the outcome align with the course's outcomes and program's competencies? ● Does the outcome align with the learner's abilities and needs at the time of instruction?
Timely	● Does the outcome specify when the learner should be able to demonstrate the targeted behavior?

Knowing how to use Bloom's Taxonomy and structure outcomes is a very important skill, but it doesn't matter how well you can write outcomes if you are targeting the wrong learning behaviors. As an instructor, you will be expected to write course-level outcomes that align with course competencies that are determined by program designers. You will also be expected to write lesson-level outcomes that build in complexity towards your course outcomes.

When designing your courses and lessons, after writing your course- and lesson-level outcomes you then need to design appropriate course- and lesson-level assessments, all of which must build towards and align with course competencies. The following figures shows how all of your outcomes and assessments must connect to and align with your course's competencies within your program.

Figure 27: Delivering Instructionally Aligned Programs


DESIGN
Learner Needs Assessments,
Industry Surveys & Interviews,
Subject-matter Expert Consults,
Inter/national Standards,
Local & Global Trends,
Instructor Feedback...
STAKEHOLDERS & RESEARCHERS
PROGRAM DESIGNERS
PROGRAM & COURSE COMPETENCIES
DELIVERY
WHAT IS INTENDED
WHAT IS TAUGHT
WHAT IS LEARNED
WHAT IS ASSESSED
WHAT IS ACHIEVED
POOR ALIGNMENT
INTENDED ≠ TAUGHT ≠ LEARNED ≠ ASSESSED
Unclear Outcomes & Competencies
Unclear & Misaligned Instruction
Unclear & Misaligned Learning Task
Unclear & Misaligned Assessment
Ineffective Knowledge, Skills & Values
GOOD ALIGNMENT
INTENDED = TAUGHT = LEARNED = ASSESSED
Clear Outcomes & Competencies
Clear & Aligned Instruction
Clear & Aligned Learning Task
Clear & Aligned Assessment
Effective Knowledge, Skills & Values
CERTIFICATE

Appendix B: Course Website Evaluation Checklist

Exercise 4: Course Website Evaluation Checklist (Checklist)

Course Content	
Organization	□
● Page titles accurately describe the contents	□
● Labels, titles, and subtitles for repeated information are consistently employed throughout	□
● Information is "chunked" appropriately to allow for easy scanning	□
Writing	□
● The tone is personable and friendly	□
● Writing is free from errors of spelling and grammar	□
● Writing is neutral in terms of age, sex, racial origin, religion, etc.	□
Learning Outcomes	□
● Learning outcomes are clearly stated	□
● Outcomes are provided at the course and module, unit, or lesson	□
● There is a clear link between outcomes and course contents	□
Resources	□
● Web-based resources are reliable, trustworthy, and up to date	□
● Resources have been chosen discriminately (i.e. avoid information overload)	□
● External web links are annotated for easier and more selective browsing	□
● External web pages are set to open in a new browser window	□
Copyright	□
● Course ownership and copyright status are indicated	□
● Copyrighted information has been cleared for use in the course	□
Instructions and Directions	
● Instructions are clear, concise, and up to date	□
● Advice is provided for completing specific activities	□
● Expectations have been set for the course	□
● Directions are provided for completing online activities	□
● Assessment criteria are provided for assignments, exams, quizzes, etc.	□
Screen Design (Style and Layout)	
● Information is scannable using the following techniques	□
o Instructions and directions stand out from the body text with the course contents, using tables, colors, or font styles	□
o Font sizes and styles are used appropriately to distinguish titles, subtitles, body text, etc.	□

o Colors are used to improve the layout of the screen (titles, important text blocks, etc.)	□
o White space is used to visually separate information	□
o Indentations and bulleted lists help to organize specific content	□
o Text, images, and background are contrasted for easy reading	□
● Images are of good quality and illustrative of ideas, directions, and other text explanation	□
● There is accommodation for various needs of students with sight disabilities – color blindness, jaws readers, transcripts of audio files, etc.	□
Technical issues	
● All the links within the course are in working order	□
● File sizes are kept to acceptable standards for sending, downloading, and viewing	□
● Files are compatible with widest range of users or software/hardware requirements	□
● Hardware/software requirements are in accordance with previous expectations	□
● The course is functional using common browsers and operating systems	□
● Multimedia components of the course are functional for the widest range of students	□
● Technology is incorporated for the widest range of users, and alternatives provided	□
● Access to support (Online Student Help) is indicated for the use of technology within the course	□

(Adapted from BCIT, 2001)

Appendix C: Lesson Planning Templates

Exercise 5: POTRR LMS Lesson Plan (Template)

Course Name			
Lesson #		**Lesson Topic**	
Section	**Purpose**		
Purpose *(i.e. Bridge)*			
Outcomes			

Tasks *(i.e. Participation and Post-assessment)*	
Review *(i.e. Summary)*	
Next Class *(i.e. Summary)*	
Resources *(i.e. LMS tools and online content)*	

Exercise 6: BOPPPS Lesson Plan for Blended Delivery (Template)

Course Name			
Lesson #		**Lesson Topic**	
Section	**Purpose**		
Online Pre-Lesson			
Transition from Online			
Bridge			

Outcomes	
Pre-assess	
Participation	
Post-assess	
Summary	
Transition to Online	
Online Post-Lesson	

Exercise 7: CARDS Lesson Plan for Blended Delivery (Template)

Course Name			
Lesson #		**Lesson Topic**	
Section	**Purpose**		
Online Pre-Lesson			
Transition from Online			

Context	
Activity	
Reflection	
Documentation &/or Discussion	
Summary	
Transition to Online	
Online Post-Lesson	

Appendix D: Teaching Competencies and Training

This workshop was designed to align with and compliment a larger set workshops and competencies, so if you enjoyed this workshop, you may also enjoy other workshops that may be available at your school or organization. This appendix describes the other workshops in the series as well as the competency framework that was used to support their design. For more information about the availability of these workshops or competencies, please ask your facilitator about them.

Table 15: Related Multi-day Workshops

	Core ISW Workshops (used by all ISW network)

	**(ISW) Instructional Skills Workshop** In this workshop, participants practice lesson planning and instruction, focusing on writing outcomes that follow Bloom's Taxonomy, using engagement strategies, using classroom assessment strategies, and using active learning strategies. Participants must plan and deliver three micro-lessons and receive feedback from their peers. ● Workshop design: 4 days (concurrent or non-concurrent) ● Prerequisites: None
	**(FDW) Facilitator Development Workshop** In this workshop, participants develop their instruction and facilitation skills by learning how to facilitate Instructional Skills Workshops and similar participatory workshops like those in this list. FDW focuses on skills like leading, paraphrasing and documenting group discussions, asking probing questions, soliciting peer feedback, developing lectures and activities on various educational topics, and so on. Similar to ISW, participants must design and deliver three micro-lessons, but they must also facilitate group feedback for other teachers and deliver themed sessions on teaching and learning topics. ● Workshop design: 4 days, weekly over four weeks or daily over four days; first day for core curriculum; second, third and fourth days for feedback and secondary curriculum ● Prerequisites: ISW (mandatory)
	ISW Workshops Extensions (used by participating institutions)
	**(ADW) Assessment Design Workshop** In this workshop, participants learn to design test blueprints, test questions, rubrics, and assignments that align with course competencies and outcomes, focusing on such topics as learning outcomes and competencies, assessment validity and reliability, instructional alignment, question types, test blueprints, rubric design, self- and peer-assessment, marking efficiency, feedback, and so on. Participants must design and present a test blueprint with example questions and an assignment rubric so they can receive feedback from their peers. ● Workshop design: 3 or 4 non-concurrent days ● Prerequisites: ISW (advised)
	**(CDW) Course Design Workshop** In this workshop, participants learn to develop course outcomes, course maps, and course syllabi, focusing on such themes as sequencing lessons, incorporating learning-by-doing strategies and assessments, designing for varying learner abilities and styles, and so on. Participants must design a comprehensive course syllabus and course map and revise them after receiving feedback from their peers. ● Workshop design: 3 or 4 non-concurrent days ● Prerequisites: ISW (advised)
	**(LBD) Learning By Doing Workshop** In this workshop series, participants learn how to plan lessons and larger projects that promote learning by doing. Each workshop in this series focuses on one of several sub-themes, which may include case-based learning, problem-based learning, project-based learning, and inquiry-based learning. Participants must design a comprehensive assignment using one of these strategies and revise the assignment after receiving feedback from their peers. ● Workshop design: 3 or 4 non-concurrent days ● Prerequisites: None
	**(NSW) Narrative Skills Workshop** In this workshop, participants learn how to tell stories that engage learners and highlight core concepts and values within courses. NSW focuses on storytelling techniques, narrative structure, and how and when to use story in the classroom. Participant must plan and deliver three short educational stories and receive feedback from their peers. ● Workshop design: 3 or 4 concurrent or non-concurrent days ● Prerequisites: None

	**(OnCDW) Online Course Design Workshop** In this workshop, participants learn how to structure online lessons and course websites to maximize learner usability and success when teaching through online or blended delivery. The three-day workshop focuses on online design, including topics as course website structure, course and lesson outcomes, online learning activities, online assessment, supporting online learners, using learning management systems, and so on. The four-day workshop focuses on blended design, including additional topics like planning learning by doing assignments, in-class participation, in-class learning activities, and so on. Participants must design an online course with example online lessons that include outcomes, tasks and assessments, and revise their course and lessons after receiving feedback from their peers. ● Workshop design: 3 or 4 non-concurrent days ● Prerequisites: None
	**(OnISW) Online Instructional Skills Workshop** In this workshop, participants learn how to design and deliver video lectures for the online environment. Online ISW focuses on lesson planning, designing quality visual aids, video capture and production, using learning management systems, and supporting online learners. Participants must design comprehensive online lessons and revise them after receiving feedback from their peers. ● Workshop design: 3 or 4 non-concurrent days ● Prerequisites: None
	**(PDW) Program Design Workshop** Intended for program leaders and/or teams of teachers in the same department, in this workshop, participants learn to develop and/or redesign programs following frameworks supported by standards organizations like AUN-QA and CDIO, specifically focusing on integrating and sequencing courses, planning for active, practical, and deep learning, and designing program competencies that meet the needs of the learner, industry and society. Using provided templates, participants must work in groups to (re)design program competencies and a program matrix, and then work individually to (re)design course competencies, descriptions, and matrices. ● Workshop design: 3 or 4 concurrent or non-concurrent days ● Prerequisites: ISW (advised), CDW (advised), ADW (advised)
	**(PPW) Professional Portfolio Workshop** In this workshop, participants learn how to create and maintain a professional teaching portfolio, focusing on such themes as structuring and designing ePortfolios, writing teaching philosophies, collecting and reflecting on teaching artifacts, self-evaluating professional competencies, and so on. Participants must design and present a teaching portfolio and teaching philosophy and receive feedback from their peers. ● Workshop design: 3 or 4 non-concurrent days ● Prerequisites: None
	**(PSW) Presentation Skills Workshop** In this workshop, participants learn to design and deliver effective presentations, focusing on assessing audiences, engagement strategies, presentation structure, facilitating questions and discussions, physical and visual communication, and so on. Participants must plan and deliver short presentations and receive feedback from their peers. ● Workshop design: 3 or 4 concurrent or non-concurrent days ● Prerequisites: None

The above workshops were designed to help instructors develop their skills and abilities so they can better meet a series of competencies that are relevant to teaching and training. The following competency framework shows how each of the above workshops align with various competencies. Not all of these competencies may be relevant to you or your institution.

Table 16: Example Competency Framework for Instructors

Competencies	Related Training
General Professional Skills	
Growth & Development: Lecturer demonstrates commitment to continuous professional growth	PPW
Self-evaluation: Lecturer demonstrates willingness and ability to self-evaluate skills and competencies	PPW
Educational Theory: Lecturer demonstrates knowledge of up-to-date educational theory and applies this theory to their planning and instruction	ISW, FDW, CDW, PDW, ADW LBD, PPW
Subject Knowledge & Field Experience: Lecturer demonstrates up-to-date theoretical knowledge and practical field experience within subject area and incorporates this knowledge and experience in their design of curriculum	PPW
Ethics: Lecturer demonstrates adherence to professional and legal standards of ethics	PPW
Learning Design Skills	
Outcomes & Competencies: Lecturer demonstrates use of carefully worded outcomes during lesson and course design that align with program and professional competencies	ISW, CDW, PDW, ADW
Needs Assessment: Lecturer demonstrates willingness and ability to evaluate learner needs, abilities and motivations when designing lessons and courses and make modifications to curriculum or delivery methods when necessary	ISW, CDW, PDW, ADW
Lesson Design: Lecturer demonstrates knowledge and application of lesson planning models that maximize learning and instructional alignment using varied instructional techniques, learning activities, and assessment tasks	ISW, FDW, CDW, OnCDW, OnISW
Course Design: Lecturer demonstrates ability to design engaging and challenging courses with carefully sequenced lessons that build towards higher-order course outcomes	CDW, PDW, ADW
Online & Blended Design: Lecturer demonstrates willingness and ability to plan courses that utilize online technologies to reduce in-class direct instruction and increase learners' in-class authentic practice	OnCDW, OnISW
Syllabus Design: Lecturer demonstrates ability to write comprehensive and accessible course syllabi that guide student expectations, behavior, and learning during the course	CDW, PDW
Universal & Personalized Design: Lecturer demonstrates willingness and ability to make courses as accessible and engaging as possible to the widest variation in learner abilities, backgrounds and styles	ISW, FDW, CDW, ADW
Design for Learning By Doing: Lecturer demonstrates willingness and ability to design larger authentic tasks and assignments that require learners to reflect on, practice, and apply higher level skills and thinking	LBD, CDW, PDW, ADW
Integrated Design: Lecturer demonstrates knowledge of other courses and competencies in their learners' programs and integrates these with their courses and lessons	CDW, PDW
Design for Student Portfolio: Lecturer demonstrates willingness and ability to design for product or performance assessments that learners can include in their portfolios for integration of learning and future employment	PPW, CDW, PDW, ADW
Instructional Methods & Skills	
Motivation & Engagement: Lecturer demonstrates willingness and ability to stimulate and sustain learner motivation and engagement during lessons and throughout courses	ISW, FDW, NSW, PSW, CDW
Learner-Teacher Relationships: Lecturer demonstrates willingness and ability to develop respectful, productive, fair, and empowering relationships with learners that build on shared understanding of teacher and learner roles and responsibilities	ISW, FDW, CDW
Learning Environment: Lecturer demonstrates effective use of strategies that create productive, cooperative, and supportive learning environments which help learners feel relaxed and safe	ISW, FDW

Active Learning: Lecturer demonstrates effective use of various active learning strategies and tasks during class time	ISW, FDW, LBD, OnCDW, OnISW
Meta Learning & Learning Skills: Lecturer demonstrates willingness and ability to teach learning skills and strategies in addition to curricular content during instructional time to help learners understand, appreciate, and improve their own learning processes	ISW, FDW, LBD, CDW, ADW
Presentation Skills: Lecturer demonstrates effective verbal, written, visual and physical communication skills when presenting curriculum to their learners	PSW, ISW, FDW, NSW
Facilitation Skills: Lecturer demonstrates effective facilitation strategies when guiding classroom activities, collaborative tasks, and discussions	FDW
Questioning Skills: Lecturer demonstrates effective use of questioning techniques to probe for critical thinking and target different learning levels and domains	ADW, ISW, FDW
Classroom Management: Lecturer demonstrates effective use of varying classroom management techniques that respect learners and maintain a productive learning environment	ISW, FDW
Assessment Skills	
Formative Assessment: Lecturer demonstrates effective use of varying classroom assessment techniques to gauge learner understanding	ADW, ISW, FDW
Feedback: Lecturer demonstrates willingness and ability to provide rich, personalized feedback to learners	ADW, ISW, FDW
Test Design: Lecturer demonstrates ability to create effective test questions that align with learning outcomes, target desired domains and levels of learning, and use appropriate question types	ADW
Rubric Design: Lecturer demonstrates ability to create effective rubrics that support teacher's and learner's evaluation of assignments and activities	ADW
Peer- & Self-assessment: Lecturer demonstrates effective use of peer- and self-assessment strategies during activities and/or assessments when appropriate	ADW
Technological Skills	
Information and Communication Technology (ICT): Lecturer demonstrates effective use of appropriate technologies to manage administrative information, learning resources, and student data	ISW, FDW, PSW, OnCDW, OnISW, PPW
Visual Aids: Lecturer demonstrates ability to create and modify effective visuals for use as instructional aids, including PowerPoint presentations, photographs, illustrations, diagrams and charts	ISW, FDW, PSW
Online & Learning Management Systems: Lecturer demonstrates willingness and ability to use Learning Management Systems, ePortfolio systems, blogging systems and other online tools to enhance instruction and professional development	OnCDW, OnISW, PPW
Video Production: Lecturer demonstrates willingness and ability to use of video recording and production tools to create effective online lectures	OnISW

Bibliography

Aldrich, C. (2008). Learning by Doing: A Comprehensive Guide to Simulations, Computer Games, and Pedagogy in e-Learning and Other Educational Experiences. John Wiley & Sons.

Bacon, P. S., & Bagwell, D. (2005). Creating Online Courses and Orientations: A Survival Guide. Libraries Unlimited.

BCIT. (2001). Ensuring Usability of Online Courses. Burnaby, Canada: BCIT Learning and Teaching Centre.

Becker, L. (2004). How to Manage Your Distance and Open Learning Course. Palgrave Macmillan. Retrieved from https://books.google.com.vn/books?id=Q9EcBQAAQBAJ

Bersin, J. (2004). The Blended Learning Book: Best Practices, Proven Methodologies, and Lessons Learned. John Wiley & Sons.

Bielawski, L., & Metcalf, D. S. (2003). Blended Elearning: Integrating Knowledge, Performance, Support, and Online Learning. HRD Press.

Bonk, C. J., & Zhang, K. (2009). Empowering Online Learning: 100+ Activities for Reading, Reflecting, Displaying, and Doing. John Wiley & Sons.

Brandon, B. (2008). Best of The eLearning Guild's Learning Solutions: Top Articles from the eMagazine's First Five Years. John Wiley & Sons.

Büchner, A. (2016). Moodle 3 Administration. Packt Publishing. Retrieved from https://books.google.com.vn/books?id=iVhLDAAAQBAJ

Conrad, R. M., & Donaldson, J. A. (2011). Engaging the Online Learner: Activities and Resources for Creative Instruction. John Wiley & Sons.

Doan, T. T. M., & Nguyen, N. H. (2014). The CDIO-Based Curricular Framework and Guidelines For an OBE Implementation. In Proceedings of the 10th International CDIO Conference. Barcelona, Spain: Universitat Politècnica de Cataluny.

Dvorak, R. (2011). Moodle For Dummies. John Wiley & Sons.

Garrison, D. R., & Vaughan, N. D. (2011). Blended Learning in Higher Education: Framework, Principles, and Guidelines. John Wiley & Sons.

Herrington, J., Reeves, T. C., & Oliver, R. (2009). A Guide to Authentic e-Learning. Routledge.

Hubbard, R. (2013). The Really Useful eLearning Instruction Manual: Your toolkit for putting elearning into practice. John Wiley & Sons.

Kitchenham, A. (2011). Blended Learning Across Disciplines: Models for Implementation. Information Science Reference. Retrieved from https://books.google.com.vn/books?id=zEoFngEACAAJ

Koper, R. (2009). Learning Network Services for Professional Development. Springer Berlin Heidelberg. Retrieved from https://books.google.com.vn/books?id=Q3LDfoDR-YYC

Koper, R., & Tattersall, C. (2005). Learning Design: A Handbook on Modelling and Delivering Networked Education and Training. Springer Berlin Heidelberg.

Lambropoulos, N. (2006). User-Centered Design of Online Learning Communities. Information Science Pub.

Lay, G. K. (2018). Icon Collection. Retrieved from https://thenounproject.com/leremy/

Lehmann, K., & Chamberlin, L. (2009). Making the Move to eLearning: Putting Your Course Online. R&L Education.

Littlejohn, A., & Pegler, C. (2007). Preparing for Blended E-learning. Routledge.

Mason, R., & Rennie, F. (2006). Elearning: The Key Concepts. Taylor & Francis.

Musburger, R. B. (2010). Single-camera Video Production. Taylor & Francis.

Rice, W. (2015). Moodle E-Learning Course Development: a Complete Guide to Create and Develop Engaging e-Learning Courses with Moodle.

Salmon, G. (2013). E-tivities: The Key to Active Online Learning. Routledge.

Shank, P. (2011). The Online Learning Idea Book: 95 Proven Ways to Enhance Technology-Based and Blended Learning. John Wiley & Sons.

Smith, R. M. (2014). Conquering the Content: A Blueprint for Online Course Design and Development. John Wiley & Sons.

Stein, J., & Graham, C. R. (2014). Essentials for Blended Learning: A Standards-Based Guide. Routledge.

Thorne, K. (2003). Blended Learning: How to Integrate Online & Traditional Learning. Kogan Page.

Traxler, J., & Kukulska-Hulme, A. (2007). Mobile Learning: A Handbook for Educators and Trainers. Routledge.

Vai, M., & Sosulski, K. (2015). Essentials of Online Course Design: A Standards-Based Guide. Routledge.

Videomaker. (2013). The Videomaker Guide to Video Production. Taylor & Francis. Retrieved from https://books.google.com.vn/books?id=ECscMvvcWowC

Wankel, C., & Blessinger, P. (2013). Increasing Student Engagement and Retention in E-Learning Environments: Web 2.0 and Blended Learning Technologies. Emerald Group.

Wild, I. (2008). Moodle Course Conversion: Beginner's Guide. Packt Publishing Ltd.

Williams, D. D., Hricko, M., & Howell, S. L. (2006). Online Assessment, Measurement, and Evaluation: Emerging Practices. Information Science Pub. Retrieved from https://books.google.com.vn/books?id=ma-FSk5WUNgC

Wilson, D., & Smilanich, E. M. (2005). The Other Blended Learning: A Classroom-Centered Approach. John Wiley & Sons.