Collected Essays on Learning and Teaching

Volume 14 Issue 1

Cooking the Course from Scratch: An Implementation Guide for In-Person and Online Faculty Development Workshops

Maristela Petrovic-Dzerdz https://orcid.org/0009-0005-4454-7280
Teaching and Learning Services, Carleton University

Dr. Anthony Marini
Professor Emeritus, University of Calgary

Recommended Citation
Petrovic-Dzerdz, M., & Marini, A. (2023). Cooking the course from scratch: An implementation guide for in-person and online faculty development workshops. *Collected Essays on Learning and Teaching*, *14*(1). https://doi.org/10.22329/celt.v14i1.6957

Cooking the Course from Scratch: An Implementation Guide for In-Person and Online Faculty Development Workshops

Abstract

Designing effective learning experiences that prioritize student-centered outcomes requires a solid foundation in course design fundamentals rooted in pedagogical principles. In this workshop, participants collaborate to create a learning activity that incorporates recognition of prerequisite skills and learning outcomes aligned with both instructional strategies and assessment processes. Upon completion, each group presents its design to the entire cohort, and feedback is provided by both peers and facilitators. Based on feedback from seven sessions (four in-person and three online), participants who completed the workshop reported high levels of satisfaction and increased confidence in their ability to apply these essential principles when creating learning activities for their courses.

Concevoir des expériences d'apprentissage efficaces qui donnent la priorité aux résultats centrés sur l'étudiant nécessite une base solide dans les principes fondamentaux de la conception de cours ancrés dans les principes pédagogiques. Dans cet atelier, les participants collaborent pour créer une activité d'apprentissage qui intègre la reconnaissance des compétences préalables et des résultats d'apprentissage alignés à la fois sur les stratégies d'enseignement et les processus d'évaluation. À la fin, chaque groupe présente sa conception à l'ensemble de la cohorte, et des commentaires sont fournis par les pairs et les animateurs. Sur la base des commentaires de sept sessions (quatre en personne et trois en ligne), les participants qui ont terminé l'atelier ont signalé des niveaux élevés de satisfaction et une confiance accrue dans leur capacité à appliquer ces principes essentiels lors de la création d'activités d'apprentissage pour leurs cours.

Keywords: course design, learning experience, teaching, educational development

In *Taking Stock: Research on Teaching and Learning in Higher Education*, Julia Christensen Hughes and Joy Mighty (2010) identify growing concerns about the need to shift faculty attitudes and mindsets around developing teaching and pedagogical skills. Over a decade later, educational researchers are still recognizing similar barriers when it comes to changing faculty attitudes about growing these skills (Christensen Hughes & Mighty, 2020). One of the main challenges is the lack of exposure to pedagogical literature or professional teaching development opportunities for faculty or graduate students before or during their teaching careers (Christensen Hughes & Mighty, 2020). The Executive Summary of *Taking Stock 2.0,* the highly anticipated follow-up to Christensen Hughes and Mighty's 2010 book, suggests the need for a new perspective on teaching and learning in higher education including professional development opportunities offered in partnership with educational developers and institutional teaching centres. Petrovic-Dzerdz (2019) similarly stresses the importance of professional development for teachers in post-secondary education, whether through attending training opportunities or working closely with instructional designers and educational developers.

In this paper, we describe an implementation guide for a faculty development workshop that introduces course design fundamentals at our institution. Grounded in evidence-informed pedagogy, our workshop and implementation guide are a critical first step when creating outcome-based, student-centred learning experiences. The positive feedback and accessibility of this workshop, which we offer both in class and online, inspire us to share our experience with fellow educational developers and instructional designers creating professional development opportunities for higher education teachers. Furthermore, the initial success of this workshop is a catalyst for the development of the Course Design Fundamentals program at our institution's Teaching and Learning Services. The workshop described in this paper is the foundational first step in the Course Design Fundamentals program.

Our objective is to inspire colleagues at other institutions to create and provide faculty development opportunities that are "effective, efficient and enjoyable" (Neelen & Kirschner, 2020, p. 39). These opportunities aim to attract faculty members who are seeking practical skills, while also fostering collaboration and exchange of ideas with their peers.

The Rationale for the Workshop Topic and Design

When designing professional development opportunities for teachers in higher education, we tend to concentrate on essential aspects of course design such as learning objectives and outcomes, effective assessment, and educational technology, among others. While each of these elements is crucial to creating a successful learning experience, they also have interconnected relationships that ensure course alignment. Just as a building structure requires a sturdy foundation, so does the design of a

learning experience. We must begin somewhere, and oftentimes, we must start from scratch.

Learning objective statements and the concept of course alignment may not be familiar to all instructors, particularly those who are new to teaching. Anderson and Krathwohl (2001) succinctly define alignment as "the degree of correspondence among the objectives, instruction, and assessment" (p. 10) and objectives as "intended student learning outcomes" (p. 3). In addition, many instructors may be unfamiliar with grading rubrics. These are complex and nuanced topics that cannot be fully addressed in a single workshop. However, understanding these concepts is essential for establishing a strong foundation for a well-designed course. Introducing these topics to a diverse group of instructors teaching various subjects and providing them with opportunities to apply the concepts in their learning experience design, all in one workshop, is not a trivial task.

We developed the "Cooking the Course from Scratch" workshop with simplicity and effectiveness in mind. By using examples of learning experiences that are familiar to all participants, like learning to cook a meal, a diverse teaching population could collaborate on conceptualizing a framework for a blended workshop. Our objective was for participants to leave the workshop with a clear idea of how to begin the process of designing a new course or redesigning an existing one. We aimed to implement workshop strategies that involved intensive, hands-on, experiential group learning events, and a truly collaborative experience that instructors could easily recall as they design their courses.

As of writing this paper, we have offered this workshop in person four times at our higher education institution, with a total of 39 participants. We have also offered it three times since the onset of the COVID-19 pandemic in an online, synchronous format, with a total of 19 participants. Based on typical workshop feedback criteria, the average satisfaction rating for the in-person workshops is 98.6/100, and for online workshops it is 96/100.

Workshop Description and Structure: In-Person and Online Versions

The workshop is facilitated by two professionals with extensive experience in teaching, instructional design, and educational development. Both the in-person and online versions of the workshop consist of four distinct parts:

- Part 1: Introduction to the learning design process and alignment
- Part 2: Program design
- Part 3: Collaborative group work
- Part 4: Group presentations and discussion

In the in-person version, all parts are delivered live. However, in the online version, Part 1 is asynchronous and online, while the remainder of the workshop is conducted synchronously online.

In-Person Workshop Structure

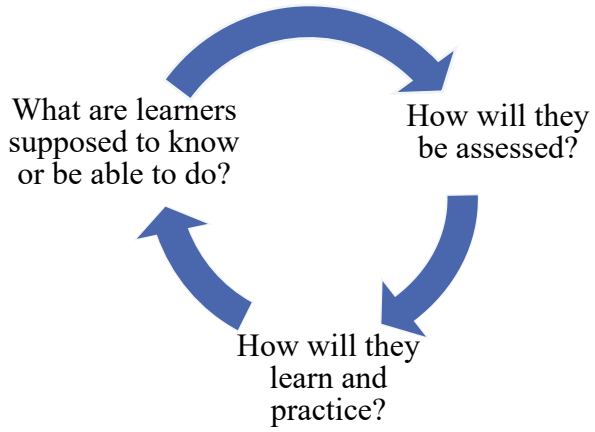
The in-person workshop typically lasts three hours, including a break. What follows is a description of each of the four parts.

Part 1 (35 min): Introduction to the Learning Design Process and Alignment

During the first part of the workshop, we introduce participants to essential learning design concepts using a relatable example of the process of obtaining a driver's license. We guide participants through the initial steps of developing such a program, including determining the minimum knowledge and skills required to obtain a license and the appropriate assessment strategies. Additionally, we explore the learning and training systems necessary to ensure that new drivers acquire the knowledge and practical skills needed to operate a vehicle safely. Using this real-life example, we provide a logical process for designing a new educational experience that addresses critical questions such as what learners need to know and do, under which circumstances, how they will be assessed, and how they will learn and practice. Our approach is grounded in the Learning Design Cycle outlined in Figure 1.

Figure 1

Learning Design Cycle



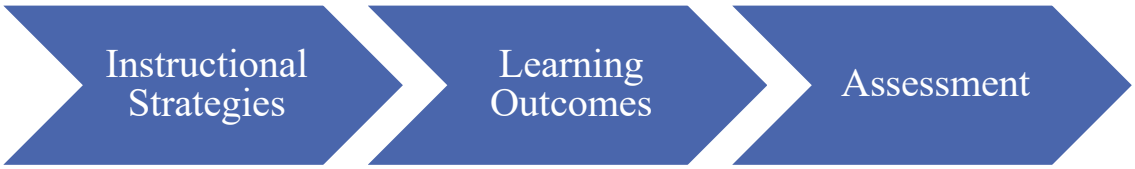
After establishing that learners need to gain knowledge in traffic theory and driving skills, we then analyze the most effective approach for assessing many

applicants on traffic rules and signs, using a multiple-choice written exam. We also consider the most suitable approach for assessing individual applicant's driving skills through a road test that includes a checklist of required demonstrated skills. We then proceed to explore the most suitable approaches to prepare for each test. This involves studying from the Ministry of Transportation booklet, attending theory classes at a driving school, and taking driving classes. These discussions inevitably lead to a conversation about the importance of aligning assessment and learning strategies in program design, and how the process is often iterative, as described by Smith and Ragan (2005).

After presenting the main elements of the learning design process with the help of a real-life example, we introduce the corresponding terminology for three key concepts that are widely accepted in the field of education: ***learning outcomes***, ***assessment***, and ***instructional strategies***. We emphasize the significance of the interdependence between critical design elements (see Figure 2), such as learning outcomes and assessment strategies, and provide a brief overview of two crucial educational concepts: Backwards Design (Fink, 2019) and Constructive Alignment (Biggs, 2003). The practical example offers an opportunity to delve into the significance of establishing learning prerequisites, transparent assessment criteria, and conditions for assessment. It also allows for the exploration of various instructional strategies that facilitate different types of learning and adequate preparation for the assessment phase.

Figure 2

Learning Design Process is Iterative



During the assessment discussion, we also introduce grading rubrics as a means of communicating expectations and offering transparent and less subjective feedback on grades. This introduction often leads to a conversation about the various skills and knowledge we intend to assess, the different "weights" assigned to each criterion, and a brief overview of a revised version of Bloom's Taxonomy (Krathwohl, 2002). After covering all the essential learning design elements and concepts, we transition to the group work activity.

Part 2 (10 min): Program Design

In the second portion of the workshop, participants are organized into three groups, consisting of typically three to four individuals per group. Participants are tasked with creating a blended learning module by designing a three-hour cooking class, with each group responsible for a different course of the meal: appetizer, main course, or dessert. Participants have three options for each course (e.g., soup, salad, or calamari for an appetizer) presented in an envelope, and a few minutes to decide. However, participants cannot make the final decision without consulting with other groups, which is when we introduce the concept of **program design**. Though we recognize we are teaching post-secondary teachers, rather than culinary students, we find the theme of cooking lifts the workshop atmosphere, as participants can often personally relate to the task.

If we want our students to learn to cook a well-balanced three-course meal, we must ensure that the appetizer, main course, and dessert work together to create a delicious meal. Each group sends a delegate for a brief "program design" exercise, or three-course menu design, to collaborate and ensure that the individual courses complement each other. After some deliberation, the menu is decided, and the delegates return to their group tables to announce the final decision. The participants then take a ten-minute break before beginning the guided group work.

Part 3 (60 min): Guided Group Work

Each group's table is equipped with writing materials such as flip charts, markers, and paper. Participants receive a worksheet (see Appendix A) to guide their design process. The objective of this exercise is to collaborate and determine all the design elements discussed in Part 1. Participants first record their individual ideas on their worksheet while engaging in active discussion, then consolidate their final decision on a flip chart and post it on the wall for a group presentation. Given the time constraint for this workshop, participants have the flexibility to decide on various unknown variables such as learners' prior knowledge and skills, class size, available teaching equipment and technology, etc. During the group work session, facilitators visit each group, answering questions and offering assistance. Typically, groups spend

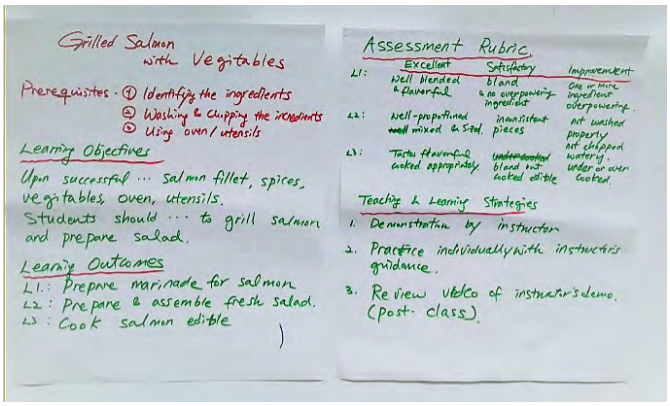
about 45 minutes discussing and designing, and about 15 minutes preparing their presentation.

Part 4 (60 min): Group Presentations and Discussion

In the final part of the workshop, each group presents their blended learning module by showcasing their presentation "poster" (see Figure 3; for the purpose of authenticity no changes were made to the participants' completed worksheets) and providing an overview of their module design, including prerequisites, learning objectives, learning outcomes, assessment rubric, and teaching and learning strategies. These presentations are interactive, with all participants encouraged to ask questions and engage in the discussion. On average, each group's presentation lasts approximately 15 minutes.

Figure 3

A Typical Example of an In-Person Completed Worksheet



Facilitators guide the discussion by asking questions to encourage participants to reflect on their experiences, reinforce the concepts covered in the session, and initiate a conversation about important pedagogical issues. For example, facilitators ask:

- What was your experience like revisiting and aligning learning outcomes, assessment strategies, and instructional strategies?
- How can we address the challenge of students in our class who do not have the necessary prerequisites?
- How challenging was it to develop an assessment rubric?
- Are all assessment criteria equally difficult and valuable?
- What was your experience like working in a group or with a partner?

- Would you consider collaborating with a colleague or instructional designer when designing a new course?

All workshop participants engage in this lively discussion, with many memorable observations and reflections on both the module design and collaborative experience.

Online Workshop Structure

The online workshop follows the same structure as its in-person counterpart but is conducted through a blend of asynchronous and synchronous online events.

Part 1 (Asynchronous online, 18 min): Introduction to the Learning Design Process and Alignment

The asynchronous online part provides an overview of the learning design process and alignment. Participants watch a pre-recorded introductory video prior to attending the online synchronous workshop, covering the same content as the in-person version.

Part 2 (Synchronous Online, 15 min): Part 1 Content Refresher and Program Design

We begin the synchronous session part with an overview of the concepts covered in Part 1. Like the in-person workshop, participants are asked to design a three-hour cooking module for a different course of the meal (i.e., appetizer, main course, dessert). Using anonymous Zoom polls, all attendees participate in choosing the three-course menu. Next, participants are grouped randomly into three Zoom breakout rooms, each named after the meal they will teach students to cook in the blended module.

Part 3 (Synchronous Online, 50 min): Guided Group Work

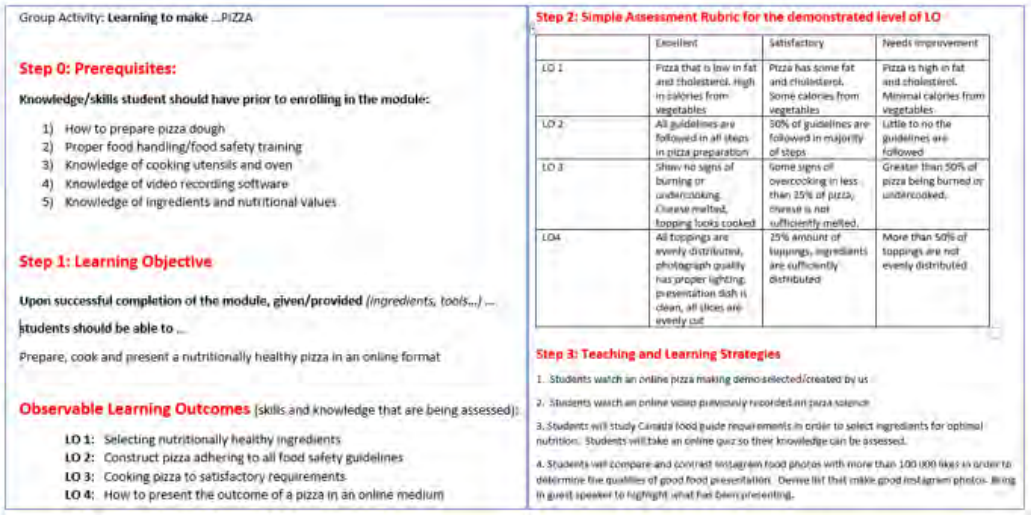
During the guided group work, participants collaborate in Zoom breakout rooms to design their learning module and complete the worksheet (see Appendix A). One participant shares their screen and takes notes while the group discusses all the design elements. Workshop facilitators also visit the breakout rooms to help as needed.

Part 4 (Synchronous Online, 45 min): Group Presentations and Discussion

In the final synchronous session of the workshop, each group presents their collaborative design through an online group presentation. Each group's notetaker shares their screen with a completed worksheet (see Figure 4) while each member takes a turn describing the various design elements of the module. After every group has presented and responded to inquiries, the facilitators initiate a robust discussion grounded in reflection.

Figure 4

A Typical Example of an Online Completed Worksheet



Group Activity: **Learning to make** ...PIZZA

Step 0: Prerequisites:

Knowledge/skills student should have prior to enrolling in the module:

1) How to prepare pizza dough
2) Proper food handling/food safety training
3) Knowledge of cooking utensils and oven
4) Knowledge of video recording software
5) Knowledge of ingredients and nutritional values

Step 1: Learning Objective

Upon successful completion of the module, given/provided *(ingredients, tools...)* ...

students should be able to ...

Prepare, cook and present a nutritionally healthy pizza in an online format

Observable Learning Outcomes (skills and knowledge that are being assessed):

LO 1: Selecting nutritionally healthy ingredients
LO 2: Construct pizza adhering to all food safety guidelines
LO 3: Cooking pizza to satisfactory requirements
LO 4: How to present the outcome of a pizza in an online medium

Step 2: Simple Assessment Rubric for the demonstrated level of LO

	Excellent	Satisfactory	Needs improvement
LO 1	Pizza that is low in fat and cholesterol. High in calories from vegetables	Pizza has some fat and cholesterol. Some calories from vegetables	Pizza is high in fat and cholesterol. Minimal calories from vegetables
LO 2	All guidelines are followed in all steps in pizza preparation	50% of guidelines are followed in majority of steps	Little to no the guidelines are followed
LO 3	Show no signs of burning or undercooking. Cheese melted, topping looks cooked	Some signs of overcooking in less than 25% of pizza, cheese is not sufficiently melted.	Greater than 50% of pizza being burned or undercooked.
LO4	All toppings are evenly distributed, photograph quality has proper lighting, presentation dish is clean, all slices are evenly cut	25% amount of toppings, ingredients are sufficiently distributed	More than 50% of toppings are not evenly distributed

Step 3: Teaching and Learning Strategies

1. Students watch an online pizza making demo selected/created by us
2. Students watch an online video previously recorded on pizza science
3. Students will study Canada food guide requirements in order to select ingredients for optimal nutrition. Students will take an online quiz so their knowledge can be assessed.
4. Students will compare and contrast instagram food photos with more than 100 000 likes in order to determine the qualities of good food presentation. Derive list that make good instagram photos. Bring in guest speaker to highlight what has been presenting.

Observations and Recommendations

Who Should Join?

To facilitate collaborative workshop activities, we recommend a minimum of nine participants and a maximum of twelve participants, forming groups of three and four, respectively. Though our primary target audience is faculty/instructors with little to no experience in course design, we encourage an open invitation to participants with varying levels of teaching experience, including both contract and full-time faculty, as well as internal staff members responsible for designing and delivering different learning experiences such as librarians, lab instructors, and institutional trainers.

What Did We Learn?

Participants provided anonymous feedback on their overall satisfaction with the session, including its effectiveness in meeting objectives, organization of content, pace, participation, and usefulness of topics, as well as their satisfaction with the facilitators' knowledge, preparedness, and helpfulness, and their overall satisfaction with the workshop experience. Of all participants who attended the in-person workshops, 59% provided anonymous feedback, and the workshops garnered an average feedback rating of 98.6/100.

Likewise, among those who participated in the online workshops, 63.2% submitted feedback, and the workshops garnered an average rating of 96/100, demonstrating a successful transition to an online format. The feedback ratings for the

first, second, and third iterations of the online workshops were 93.7%, 95.7%, and 100%, respectively. These results underscore the significance of providing adequate time for facilitators and participants to adapt to changes in the delivery mode, as experienced during the COVID-19 pandemic, and the value of multiple design iterations to achieve desired evaluation outcomes.

Several themes emerged from the unstructured and open-ended feedback including the benefits of the workshop's practical application, eagerness to revisit course designs and the design process, interest in follow-up workshops to further develop course design skills, and newfound interest in consulting with other faculty and educational specialists.

The comments confirmed the success of the workshop's effective strategies and identified approaches that could enhance the learning experience even further. For instance, participants asked for additional resources they could explore independently and requested follow-up experiences to enhance their skills. While some feedback provided by participants is anecdotal, it will be necessary to develop more empirical methods to confirm these observations systematically. Therefore, we encourage practitioners who implement similar workshop strategies to share the feedback they collect, so that this workshop and follow-up educational development opportunities can be improved, benefiting a wider teaching and educational development community.

Conclusion

When organizing workshops for instructors, it is important to create memorable and relevant experiences that can be immediately applied in practice. In addition, providing resources that instructors can investigate on their own time can further enhance their development. It is common for instructors to work alone on course design without much collaboration with colleagues or professionals. That is why professional development workshops can be excellent opportunities for instructors from different departments to collaborate, exchange ideas, share teaching strategies, and learn about the benefits of teaching support centres.

We created a workshop that reimagines how to effectively and enjoyably address the core topics of course design, such as learning objectives, teaching and assessment strategies, course alignment, and grading rubrics. Our aim was to create a professional development opportunity accessible to educators at all levels of teaching and course design experience. The success of this workshop, whether in-person or online, is rooted in its purposeful and carefully crafted design that utilizes familiar topics to introduce fundamental aspects of course design in three hours or less. Participant feedback demonstrated that the workshop boosted confidence in applying basic design principles, fostered interest in professional development opportunities and

collaboration with educational professionals and colleagues, and inspired eagerness to revisit their courses. Building on this success, we have developed the Course Design Fundamentals Program, a series of workshops where participants can delve deeper into the concepts and principles introduced in the initial workshop and apply them to their course design.

We believe that our workshop and the Course Design Fundamentals Program represent a significant step forward in providing accessible and effective professional development opportunities for educators. By reimagining the approach to course design, we have been able to equip participants with the tools and knowledge needed to create engaging and impactful learning experiences for their students. We are excited to continue to improve and expand upon this program, and we look forward to seeing the positive impact it will have on the teaching and learning communit

References

Anderson, L. W., & Krathwohl, D. R. (2001). *A taxonomy for learning, teaching, and assessing: A revision of Bloom's taxonomy of educational objectives*. Longman.

Biggs, J. (2003). Aligning teaching for constructing learning. *The Higher Education Academy*. *https://www.advance-he.ac.uk/knowledge-hub/aligning-teaching-constructing-learning*

Christensen Hughes, J., & Mighty, J. (2010). *Taking stock: Research on teaching and learning in higher education.* McGill-Queen's University Press.

Christensen Hughes, J., & Mighty, J. (2020). *Taking stock 2.0: Research on teaching and learning in higher education* Executive Summary. https://heqco.ca/wp-content/uploads/2020/06/TakingStockENG.pdf

Fink, L. D. (2019). A self-directed guide to designing courses for significant learning. https://www.deefinkandassociates.com/GuidetoCourseDesignAug05.pdf

Krathwohl, D. R. (2002). A revision of Bloom's taxonomy: An overview. *Theory into Practice, 44*(4).

Neelen, M., & Kirschner, P. A. (2020). *Evidence-informed learning design*. Kogan.

Petrovic-Dzerdz, M. (2019). Gamifying online tests to promote retrieval-based learning. *The International Review of Research in Open and Distributed Learning, 20(2).* https://doi.org/10.19173/irrodl.v20i2.3812

Smith, P. L., & Ragan, T. J. (2005). *Instructional design* (3rd ed.). J. Wiley & Sons.

Appendix A: Worksheet

Group Activity – Designing Cooking Workshop "**Learning to make _____**"

Step 0: Prerequisites:

Knowledge/skills students should have before enrolling in the workshop:

1)

2)

3)

Step 1: Workshop Learning Objective and Learning Outcomes:
Objective: Upon successful completion of the workshop, given/provided *(ingredients, tools…)* **_____students should be able to _____.**

Observable Learning Outcomes *(new skills and knowledge that are being observed and assessed):*

LO 1:

LO 2:

LO 3:

Step 2: Simple Assessment Rubric for the Demonstrated Level of LOs

	Needs Improvement	Satisfactory	Excellent
LO 1			
LO 2			
LO 3			

Step 3: Teaching and Learning Strategies

1)

2)

3)

About the Authors

Maristela Petrovic-Dzerdz, Meng Bed PBDID is currently an Educational Developer specializing in Course Design at Teaching and Learning Services (TLS), Teaching Excellence and Innovation, at Carleton University in Ottawa. Previously, she was a Supervisor of Instructional Design and has provided instructional design services at Carleton University for more than a decade. Maristela has been designing and leading many educational development opportunities including teaching certificate programs and workshops, and is actively engaged in SoTL.

Dr. Anthony Marini is a 3M National Teaching Fellow and Associate Professor Emeritus, University of Calgary. Dr. Marini was for twelve years the Senior Teaching Development Associate at Teaching and Learning Services (TLS) at Carleton University, Ottawa, where he established and led the Certificate in University Teaching, a flagship TLS program. In addition, Dr. Marini served as the Senior Faculty Consultant in the area of assessing student learning.

Acknowledgment

The authors would like to acknowledge Jennifer Ramsdale and Heather Farmer for their help in brainstorming creative workshop ideas.

Correspondence

Correspondence concerning this article should be addressed to Maristela Petrovic-Dzerdz, 1125 Colonel By Drive, Ottawa, ON, K1S 5B6, Tel. 613-291-2110 or by email at maristela.petrovicdzerdz@carleton.ca