

Supplementary Material

1 Supplementary Tables

Table S1. Best fit multilevel binomial model describing the likelihood of being in the Published/In-Progress category for Writing Studio participants (n = 188) from different institution types.

Model 1: Likelihood of being Published/In-Progress of publishing, individuals from all institutions				
<i>Variable</i>	<i>Coefficient</i>	<i>SE</i>	<i>P</i>	<i>Odds of Publishing (deviation from grand mean)</i>
<i>Fixed Effects</i>				
Intercept	-0.823	0.252	0.001	-56.1 %
Community College	-1.330	0.585	0.023	-73.5 %
Master's-Granting	0.213	0.436	0.627	23.7%
Doctorate-Granting	0.571	0.286	0.076	66.1 %
Primarily Undergraduate	0.609	0.335	0.069	85.4%
<i>Random Effect</i>				
Session Number (ICC = 2.0%)	0.026	0.024	—	—

Table S2. Best fit multilevel binomial model describing the likelihood of being in the Published/In-Progress category for Writing Studio participants (n = 112) from Doctorate-Granting Universities.

Model 2: Likelihood of being Published/In-Progress of publishing, individuals from doctoral institutions				
<i>Variable</i>	<i>Coefficient</i>	<i>SE</i>	<i>P</i>	<i>Odds Ratio</i>
<i>Fixed Effects</i>				
Intercept	-0.500	0.208	0.016	0.607
Long-Format vs. Short-Format	1.416	0.627	0.024	4.121

Table S3. Demographic information from participants who attended the Fall 2021, Summer 2022, Fall 2022, or Spring 2023 Writing Studios.

Category	Participants (n)
<i>Published/In-Progress (n = 16)</i>	
Doctorate-Granting University	15
Master's-Granting University	1
Primarily Undergraduate Institution (PUI)	0
Community College	0
<i>Not Submitted (n = 19)</i>	
Doctorate-Granting University	9
Master's-Granting University	4
Primarily Undergraduate Institution (PUI)	1
Community College	5

2 Example of a *CourseSource* Writing Studio Worksheet



Spring 2023 *CourseSource* Online4Bio Writing FMN Lesson Manuscript Planning Worksheet

1. Please complete the Pre-Survey. Completing the survey is voluntary, but your participation helps *CourseSource*.
2. Please watch the Overview of *CourseSource* video and then explore the [CourseSource website](#). We suggest that you also familiarize yourself with the format of *CourseSource* Lesson articles by reading through the articles below and by looking through the Lesson Article Template in your folder (additional instructions can be found on the [For Authors page](#)).

[A virtual laboratory on cell division using a publicly-available image database](#)
(Shelden, Offerdahl, & Johnson, 2019)

[Biodiversity Show and Tell: An Accessible Activity to Encourage Students to Explore the Tree of Life](#)
(Stockwell and Davids, 2021)

3. Select which [CourseSource course\(s\)](#) is/are most aligned with your Lesson. *Examples:* Anatomy-Physiology, Ecology, Science Process Skills.

List the course(s) here:

4. If you have not done so already, you will need to create an account to QUBES at <https://qubeshub.org/> and once you do, join the *CourseSource* group at <https://qubeshub.org/community/groups/coursesource>. You may also want to create an account for the *CourseSource* submission site at <https://coursesource.msubmit.net/>, however this is not required for the FMN.

I. Learning Goals and Learning Objectives

5. Learning Goals.

The first subsection of your Lesson article is describing your Learning Goals. Provide clearly stated learning goals, which are broad statements of what the students will know once they have completed the Lesson. Learning goals are typically rather abstract and use words like “know,” “understand,” and “value.”

In addition, list any relevant learning goals generated by a biology professional society that align with your lesson. Most Lesson learning goals are a combination of society-generated goals and Lesson-specific goals. Path to find [biology professional society learning goals](#) → click on a relevant course → new page will show available goals for that course (e.g., [genetics](#)). Click on the caret next to the topics to see the society-generated learning goals and example articles. *Note that not all courses have society-generated learning goals.*

Write Learning Goals for your Lesson here:

6. Learning Objectives.

Learning objectives define what students who have successfully accomplished the learning goal can actually do. As such, learning objectives should build towards completing the stated learning goals. Learning objectives describe student behaviors that are observable, measurable, and testable. Learning objectives should test students' mastery of the material and use words like “define,” “predict,” “design,” and “evaluate.” If you would like to see an example of a learning objective, please browse published Lessons. You can also find examples of learning objectives under the [biology professional society learning goals](#) → click on a relevant course → new page will show available goals for that course (e.g., [genetics](#)). Click on the caret next to the topics to see the society-generated learning goals and example articles. Click on the “+ Sample Objectives” for a given learning goal to see example learning objectives.

Write Learning Objectives for your Lesson here:

7. As you draft your Learning Goals and Objectives, think about how Backwards Design can guide your Lesson design. Backwards Design is a process for developing curriculum where you first specify the learning objectives, then identify how you will assess those learning objectives, and finally plan the activities, experiences, and learning that students engage in to help them achieve the learning objectives. Please watch this short video about [Backwards](#)

[Design](#) and think about the reflection questions below. Review each element of the lesson from an outcomes-based perspective.

- a. Are your objectives written in such a way that they help novice learners understand the target of their learning?
- b. Are your lesson objectives written with verbs that are measurable?
- c. Do your lesson objectives align with the assessments and activities in your lesson?
- d. Could you help your learners reach the intended outcome by using different tools/approaches?

*****Don't forget to peer-review your partner's materials!***

II. Lesson Plan and Supporting Materials

Before starting, watch the short video about the Lesson Plan and Supporting Materials.

CourseSource articles are similar to methods articles in other journals. Here is where you write a description of the Lesson that is complete and sufficiently detailed that a teacher with less skill or scientific expertise in this area than yours would be able to teach it. This section should capture how you would explain to a colleague how to teach your class for you. Focus on how you actually taught the Lesson.

Please take a moment and look at the lesson plan section of at least one published Lesson so you can gauge the level of detail needed. Example lessons from past writing studio participants are below - feel free to look at one of these or another lesson of your choosing.

Jessica Joyner - [Developing Data Literacy Skills and Connecting the Student Experience in the Classroom to the Community Through Biodiversity Projects](#)

Carlos Goller - [A CRISPR/Cas Guide RNA Design In Silico Activity](#)

8. It is a good idea to reference your Supporting Materials as you are writing the Lesson Plan section. **Please list your Supporting Materials here** so you can be thinking about them as you are writing this section. Think about what you would need to include in order for someone else to teach the Lesson as you have. Some examples may include presentation slides, worksheets, laboratory instructions, exam questions, etc.
9. **Write your Lesson Plan below.** Make sure your description is complete and sufficiently detailed. Statements such as, "We then gave a mini lecture about DNA," "Students chose an original research paper," and "Our assessment is a scientific-style report" are too vague to be replicable.
10. **Provide your Teaching Timeline Table below.** Each Lesson article includes a recommended Teaching Timeline Table. Below is an example; feel free to replace the information in the example with the relevant details from your Lesson. A Table Template is also available on the [For Authors page](#). You can continue to add rows as you work on the Lesson Description. (Partial example below is from the lesson: [Developing Data Literacy Skills and Connecting the Student Experience in the Classroom to the Community Through Biodiversity Projects](#)).

Activity	Description	Estimated Time	Notes
Preparation for Class			
Download iNaturalist App	Have students download the application iNaturalist onto their mobile device and create an account.	2 minutes	The program can also be run on a computer, but then a digital camera will be needed to upload photos.
Class Session 1			
Introductory Lecture	Urban ecology and biodiversity background	10 minutes	Lecture slides with notes are in Supporting File S1. Data Literacy Through Biodiversity Projects – Urban Biodiversity Presentation
Practice Observations	Data collection.	15 minutes	Instructed practice on quality of observations and basic identification.

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III. Introduction

Before starting, watch the short video about the Introduction.

The introduction should provide the origin and rationale for the design of the Lesson and provide enough background information to allow the reader to evaluate the Lesson without referring to extensive outside material.

11. What biological/scientific information is needed to teach your Lesson? Where can you find it?

Some open source options:

- <https://www.ncbi.nlm.nih.gov/books/>
- <https://www.nature.com/scitable>
- <https://www.hhmi.org/biointeractive>

12. What additional primary literature should be included? Are there important popular press articles about your Lesson?

13. Are there other Lessons that are similar to yours? Describe similar lessons below.

Some examples of places to search:

- American Biology Teacher <https://online.ucpress.edu/abt>
- BioScience <https://www.aibs.org/bioscience/>
- CourseSource <https://qubeshub.org/community/groups/coursesource/>
- Faculty for Undergraduate Neuroscience <https://www.funfaculty.org/>
- Google and Google Scholar <https://www.google.com/> and <https://scholar.google.com/>
- Journal of Microbiology & Biology Education <https://journals.asm.org/journal/jmbe>
- Life Sciences Education <https://www.lifescied.org/>
- PLOS-BIO <http://journals.plos.org/plosbiology/>
- Biochemistry and Molecular Biology Education <https://iubmb.onlinelibrary.wiley.com/journal/15393429>

14. In what ways is your Lesson different? Why are the differences important?

15. Please use your answers from questions 11–14 as a guide to organize your introduction section paragraphs. Write your introduction paragraphs here:

16. Intended Audience. Describe the student population(s) that were taught the Lesson, including their level and major affiliation. For example: first-year students at a large research university, science majors at a community college, non-science majors in a summer research program, advanced biology students at a liberal arts college.

17. Required Learning Time. What is the overall Required Learning Time? One 50-minute class period? A three-hour laboratory? You do not need to worry about the detailed timeline here, just list the overall time.

18. Prerequisite Student Knowledge. What do students need to know to be ready for your Lesson? The answer should not be “nothing.” What topics must be covered before your Lesson? Are there helpful readings or videos? Can you find open source resources? (<https://www.ncbi.nlm.nih.gov/books/>, <https://www.nature.com/scitable>, <https://www.youtube.com/>, <https://www.hhmi.org/biointeractive>). Describe the students' prerequisite knowledge which may include both skills and background content knowledge.
19. Prerequisite Teacher Knowledge. What resources do you use to prepare to teach this Lesson? Think of a busy colleague who is teaching a class for the first time and wants to teach this Lesson in a few days. What resources should they look at? Are there any open source resources? Describe what prerequisite knowledge the teacher may need to successfully deliver the Lesson.

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IV. Scientific Teaching Themes

Before starting, watch the short video about the Scientific Teaching Themes section.

20. Active Learning: what active learning instructional approaches do you use during this Lesson? Please list them here (example: clicker questions, small group activities, think-pair-share, jigsaw):

There are lots of resources about active learning strategies. Here are a few places to look:

- Yale Poorvu Center for Teaching and Learning <https://ctl.yale.edu/teaching/ideas-teaching>
- University of British Columbia Carl Wieman Science Education Initiative <http://www.cwsei.ubc.ca/index.html>
- Vanderbilt University Center for Teaching <https://cft.vanderbilt.edu/teaching-guides/>
- CU Boulder Center for STEM Learning <https://www.colorado.edu/csl/resources>
- Carleton College Science Education Resource Center <https://serc.carleton.edu/highered/index.html>

Places to find relevant literature:

- ERIC <https://eric.ed.gov/>
- Journal of Microbiology and Biology Education <https://journals.asm.org/journal/jmbe>
- Life Sciences Education <https://www.lifescied.org/>
- PubMed <https://www.ncbi.nlm.nih.gov/pmc/>

Some commonly cited papers:

- Eddy SL, Hogan KA. 2014. Getting under the hood: How and for whom does increasing course structure work? Cell Bio. Edu. 13:453-468.
- Freeman S, Eddy SL, McDonough M, Smith MK, Okoroafor N, Jordt H, Wenderoth MP. 2014. Active learning increases student performance in science, engineering, and mathematics. Proc. Nat. Acad. Sci. U.S.A. 111:8410-8415.
- Lyman F. 1987. Think-Pair-Share: An expanding teaching technique: MAA-CIE Cooperative News. 1:1-2
- Mazur E. 2013. Peer Instruction: A User's Manual, 2nd ed. Pearson Higher Education, Upper Saddle River.
- Smith MK, Wood WB, Adams WK, Wieman C, Knight JK, Guild N, Su TT. 2009. Why peer discussion improves student performance on in-class concept questions. Science 323:122-124.
- Theobald EJ, Hill MJ, Tran E, Agrawal S, Arroyo EN, Behling S, . . . Freeman S. 2020. Active learning narrows achievement gaps for underrepresented students in undergraduate science, technology, engineering, and math. Proc. Nat. Acad. Sci. U.S.A. 117(12), 6476-6483. doi:10.1073/pnas.1916903117.

21. Assessment: What assessments did you use to measure learning? How did students self-evaluate their learning? List and/or explain the kinds of assessment tools used to measure how well students achieved *the learning objectives* (remember your reflections on

Backwards Design!). For example, assessments might be clicker questions, forced choice questions, exams, posters, etc.

22. Inclusive Teaching: How is the Lesson designed to include all participants and acknowledge the value of diversity in science? **List and/or explain how the Lesson is inclusive and how it leverages diversity in the classroom and beyond.** For example, the Lesson may use multiple senses, different ways of knowing (e.g., indigenous knowledge) and provide examples of scientists from different backgrounds (e.g., People of Color, LGBTQIA+, and differently abled).

23. As you draft your Scientific Teaching Themes section, think about how Universal Design for Learning can guide your Lesson design. Universal Design for Learning (UDL) is an instructional approach that provides an equitable learning experience to the broadest possible diversity of students, minimizing the need for individual accommodations. This is achieved by ensuring the learning environment, which includes learning materials, provides multiple means of engagement, representation, and action and expression. The UDL framework was developed by CAST in the 1990s and is grounded in learning and neuroscience research.

Getting Started

Watch [this video about the organization of the UDL Framework](#) and then explore the [UDL Guidelines](#) on CAST's website. Remember, the UDL Guidelines are not a checklist! Start with small, purposeful changes that remove unnecessary barriers while preserving productive challenges. You can also [review slides prepared by Hayley Orndorf](#) from a previous FMN iteration.

Reflection Questions

Consider these questions as you think about your Lesson:

1. Open the [UDL Guidelines](#). Are there checkpoints you have already incorporated into your article?
 - a. Are these checkpoints aligned with your assessments and learning objectives?
 - b. Do you notice any patterns about checkpoints already implemented?(Ex: They mostly fall within the Engagement column or are all in the Build row.)
2. Reflect on the last time you implemented this article in your classroom.

- a. Where did learners have questions? Were there portions you had to re-teach? Which assessment questions are frequently missed?
- b. Consider how you could address those questions or "pinch points" by implementing one UDL checkpoint.

Resource for inclusive teaching strategies from *CBE-Life Sciences Education*:

<https://lse.ascb.org/evidence-based-teaching-guides/inclusive-teaching/>

Example:

Mindi Summers - [An active-learning lesson that targets student understanding of population growth in ecology](#)

"This lesson seeks to create a learning environment where students' academic, social, and cultural backgrounds can be an asset to their learning. We fostered this inclusive teaching environment through incorporating a variety of different teaching methods to meet the needs of students with diverse learning preferences, abilities, and backgrounds (23, 24). For example, the concepts were presented and available to students on projected slides, the student worksheet, and through instructor and peer-led discussion. When questions were presented, students were given the opportunity to first think and write on their own, then discuss in small groups, and finally report out to the entire class. In addition, we used an anonymous response system (clickers) with peer discussion to reduce student discomfort (25) and promote a collaborative learning environment (26-28)."

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V. Teaching Discussion

Before starting, watch the short video about the Teaching Discussion and Abstract sections.

24. What information do you have about the effectiveness of the Lesson? Observations from teaching? Pre/post test results? Reactions from students? Note: you must provide an IRB protocol number or state that IRB deemed the project not requiring review if you report on any class or student data (unless it was collected anonymously via a survey).
25. Are there any extensions/modifications to the Lesson that you would suggest for different classroom characteristics such as size or student population, for example? Thoughts about what students learned in this Lesson that could be expanded upon in future Lessons? Are there other opportunities to emphasize or build on related material? How could the Lesson be adapted for online implementation?
26. Please use your answers from questions 24–25 as a guide to organize your teaching discussion section paragraphs. **Write your teaching discussion paragraphs here:**

If you finish with the above questions for your Teaching Discussion section, feel free to start thinking about additional Tables or Figures. A primary image and description is also required with each article submission. What image might best represent your article?

27. Are there any additional Tables or Figures you would like to include in your manuscript? **Include ideas for these here as well as any ideas for your primary image:**

VI. Abstract

28. Answer the following questions to get started on your abstract.

- What teaching challenge do you address in your Lesson?
- What is the key background information specific to the Lesson?
- Briefly describe the Lesson.
- What conclusions have you drawn?

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VII. References

The citation style of *CourseSource* follows the [standards set by the American Society for Microbiology \(ASM\)](#). ***Ensure your list of references is formatted correctly.*** Correct citations help others find your references, maintain *CourseSource* as a reputable journal, and are very important in research integrity. Here are general guidelines:

- Cite references in the text by placing the reference number in parentheses (or brackets when relevant). For example:
 - Several CUREs have been developed recently in the field of ecology (1–5).
 - CURES have the potential to increase student success (6, 7).
 - There are multiple consortiums available to help scholars develop their own CURES (see Consortium A [8], Consortium B [9], and Consortium C [10] for more information).
 - Despite this growth, research suggests that interdisciplinary CUREs are lacking in the current literature (4).
- Number the references in the order in which they appear in the text.
- Abbreviate the names of journals, according to the list in [NCBI](#). Remove any periods.
- DOI numbers must be included, if an article has one.
- Use sentence case for titles (helpful website: <https://titlecaseconverter.com/>)
- If multiple references are cited in the same citation, number them by date order with the oldest citation as the lowest number.
- References in the list should only be of references in the main text. Any references in the Supporting Materials should be listed separately within the Supporting Material.

Examples of reference style:

~Journal Articles

Knight JK, Wood WB. 2005. Teaching more by lecturing less. *Cell Biol Educ* 4:298–310. doi:10.1187/05-06-0082.

~Book/ Report

Handelsman J, Miller S, Pfund C. 2006. *Scientific teaching*. W.H. Freeman, New York, NY.

~Book Chapters

Dennen VP, Burner KJ. 2008. The cognitive apprenticeship model in educational practice, p 425–439. *In* Spector JM, Merrill MD, van Merriënboer J, Driscoll MP (ed), *Handbook of research on educational communications and technology*, 3rd ed. Lawrence Erlbaum Associates, New York, NY.

~Websites

Author (if unavailable, use website host). Year published (if unavailable, use update/revision date, or use n.d.). Article title. Website host (if not already used as author). Retrieved from URL (accessed day month year).

Examples:

California Department of Fish and Wildlife. 2022. Gray wolf. Retrieved from <https://wildlife.ca.gov/Conservation/Mammals/Gray-Wolf> (accessed 19 October 2022).

Ray J, Marken S. 2014. Life in college matters for life after college. Gallup. Retrieved from <https://news.gallup.com/poll/168848/life-college-matters-life-college.aspx> (accessed 14 July 2022).

[This website](#) is also a helpful resource for how to cite different kinds of references.

Two citation styles are available to download from the [CourseSource For Authors page](#). For information on how to install and the difference between the two versions, please visit our website. For EndNote users, please use the ASM Journals style. However, you will need to manually add DOI numbers and edit journal names to abbreviations.

29. Populate the Lesson Article template with the pieces from this worksheet. A copy of the template is included in your folder. (You can also download the [Lesson Article template here](#)). This article template is very similar to the worksheet template; the worksheet template just provided a bit more scaffolding.
30. As you format your manuscript, insert your citations into the text of your article.
31. When you have finished your Lesson manuscript, open the Rubric for Lesson Articles. A copy of the rubric is included in your folder. (You can also download the [Rubric for Lesson Articles here](#).) CourseSource reviewers will be using this rubric to give you feedback on your manuscript, and it provides a great way to double check that you have included all the relevant information in your article. **Peer-review your partner's manuscript using the Rubric.**

Congratulations!

You're well on your way to submitting your Lesson manuscript to CourseSource!
We will discuss the submission process at our last meeting.

3 Survey Questions

3.1 Pre-Survey

1. Please enter full, preferred name (i.e., what you prefer to be called) in the space below:
2. What is your primary goal of attending the CourseSource Writing Studio?
3. When you participate in teaching-related professional development events, what makes you feel like you are part of a community?
4. Open Education Resources (OERs) are defined as teaching, learning and research materials in any medium – digital or otherwise – that reside in the public domain or have been released under an open license that permits no-cost access, use, adaptation and redistribution by others. The lesson materials published in CourseSource are OERs. Are you part of a community that uses OERs? If so, please briefly describe your use of OERs in this community.
5. Are you part of a community that develops and/or shares OERs for courses? If so, please briefly describe your experience in these processes.
6. What supports do you think are important for maintaining a long-term productive relationship with peers developing OERs?
7. Is the CourseSource article you will be working on during the workshop intended to be used in an online course, an in-person course, or a hybrid in-person/online course? Please select all that apply.
 - a. Online course
 - b. In-person course
 - c. Hybrid course
 - d. Other
8. In the past year, who out of the list below have you talked to about writing a CourseSource article? Here, “talked to” can include in-person, Zoom meetings, email, etc. You do not need to click on yourself. Please select all that apply.
 - a. *List of participants from the current Writing Studio iteration*
 - b. Other people in my department
 - c. Other people in my university
 - d. Other people outside of my university
 - e. I have NOT talked to any of these individuals about writing a CourseSource article in the past year
9. How many times did you talk to the people you selected in the previous question about writing a CourseSource article?
 - a. *Pulls up selected responses from Question 8*
 - i. Just once
 - ii. 2-3 times
 - iii. 4-5 times
 - iv. 6+ times
10. In the past year, who out of the list below have you talked to about teaching. Here, “talked to” can include in-person, Zoom meetings, email, etc. You do not need to click on yourself. Please select all that apply.
 - a. *List of participants from the current Writing Studio iteration*
 - b. Other people in my department

- c. Other people in my university
 - d. Other people outside of my university
 - e. I have NOT talked to any of these individuals about writing a CourseSource article in the past year
11. How many times did you talk to the people you selected in the previous question about teaching?
- a. *Pulls up selected responses from Question 10*
 - i. Just once
 - ii. 2-3 times
 - iii. 4-5 times
 - iv. 6+ times
12. In the past year, who out of the list below have you talked to about implementing an OER in a classroom? Here, “talked to” can include in-person, Zoom meetings, email, etc. You do not need to click on yourself. Please select all that apply.
- a. *List of participants from the current Writing Studio iteration*
 - b. Other people in my department
 - c. Other people in my university
 - d. Other people outside of my university
 - e. I have NOT talked to any of these individuals about writing a CourseSource article in the past year
13. How many times did you talk to the people you selected in the previous question about implementing an OER in a classroom?
- a. *Pulls up selected responses from Question 12*
 - i. Just once
 - ii. 2-3 times
 - iii. 4-5 times
 - iv. 6+ times
14. Please rate your level of agreement to the following statements:
1 = Strongly disagree, 2, 3, 4, 5 = Strongly agree
- a. I can find useful OERs for teaching.
 - b. I can adapt OERs for my classes.
 - c. I am willing to share OERs I have developed or adapted with Writing Studio participants.
 - d. I am willing to publish OERs I have developed or adapted for anyone to use.
 - e. I will receive appropriate recognition for publishing my teaching materials as OERs.
 - f. I am interested in learning about how other instructors adapt the materials I share and publish.

3.2 Post-Survey

1. Please enter full, preferred name (i.e., what you prefer to be called) in the space below:
2. Was your primary goal of attending the CourseSource Writing Studio accomplished? Please describe what supported or hindered you in achieving your goal.
3. Did you feel like part of a community during the CourseSource Faculty Mentoring Network? Please describe why or why not.
4. I desire to maintain a community with those I met in the CourseSource writing workshop.
 - a. Yes
 - b. No
 - c. Maybe
5. Which supports do you plan to use to maintain this community?
 - a. Regularly communicate with my workshop partner
 - b. Attend online check-in sessions with the writing workshop community (approx. 3 times w/in next year)
 - c. I do not plan to use any supports at the moment
 - d. Other. Please Describe
6. Did your participation in the CourseSource Writing Studio impact whether you identify yourself as being part of a community that uses Open Educational Resources (OERs)? If so, what aspects of the Writing Studio helped facilitate this feeling? If not, what would have helped promote greater feelings of inclusion?
7. Did your participation in the CourseSource Writing Studio impact whether you identify yourself as being part of a community that shares OERs? If so, what aspects of the Writing Studio helped facilitate this feeling? If not, what would have helped promote greater feelings of inclusion?
8. During the Writing Studio, who out of the list below did you talk to about writing a CourseSource article? You do not need to click on yourself. Please select all that apply.
 - a. *List of participants from the current Writing Studio iteration*
 - b. Other people in my department
 - c. Other people in my university
 - d. Other people outside of my university
 - e. I have NOT talked to any of these individuals about writing a CourseSource article in the past year
9. How many times did you talk to the people you selected in the previous question about writing a CourseSource article?
 - a. *Pulls up selected responses from Question 8*
 - i. Just once
 - ii. 2-3 times
 - iii. 4-5 times
 - iv. 6+ times
10. During the Writing Studio, who out of the list below did you talk to about teaching. You do not need to click on yourself. Please select all that apply.
 - a. *List of participants from the current Writing Studio iteration*
 - b. Other people in my department
 - c. Other people in my university

- d. Other people outside of my university
 - e. I have NOT talked to any of these individuals about writing a CourseSource article in the past year
11. How many times did you talk to the people you selected in the previous question about teaching?
- a. *Pulls up selected responses from Question 10*
 - i. Just once
 - ii. 2-3 times
 - iii. 4-5 times
 - iv. 6+ times
12. During the Writing Studio, who out of the list below did you talk to about implementing an OER in a classroom? You do not need to click on yourself. Please select all that apply.
- a. *List of participants from the current Writing Studio iteration*
 - b. Other people in my department
 - c. Other people in my university
 - d. Other people outside of my university
 - e. I have NOT talked to any of these individuals about writing a CourseSource article in the past year
13. How many times did you talk to the people you selected in the previous question about implementing an OER in a classroom?
- a. *Pulls up selected responses from Question 12*
 - i. Just once
 - ii. 2-3 times
 - iii. 4-5 times
 - iv. 6+ times
14. Please rate your level of agreement to the following statements:
1 = Strongly disagree, 2, 3, 4, 5 = Strongly agree
- a. I can find useful OERs for teaching.
 - b. I can adapt OERs for my classes.
 - c. I am willing to share OERs I have developed or adapted with Writing Studio participants.
 - d. I am willing to publish OERs I have developed or adapted for anyone to use.
 - e. I will receive appropriate recognition for publishing my teaching materials as OERs.
 - f. I am interested in learning about how other instructors adapt the materials I share and publish.
15. Please rate the following based on your experience at the CourseSource Writing Studio.
Strongly disagree, Disagree, Neither agree nor disagree, Agree, Strongly agree
- a. Overall the CourseSource Writing Studio was a worthwhile experience.
 - b. CourseSource is a valuable resource for undergraduate biology and/or physics instructors.
 - c. The amount of time in the CourseSource Writing Studio was too short.
 - d. The CourseSource Writing Studio was well-planned.
 - e. The facilitators effectively answered questions.
 - f. The atmosphere was engaging and conducive to professional exchange.

- g. I am likely to use published CourseSource Lessons in my classroom.
 - h. I am likely to submit the manuscript that I worked on during the Writing Studio to CourseSource.
 - i. I would recommend the CourseSource Writing Studio to colleagues.
16. What suggestions do you have for ways that we could make the Writing Studio more useful to you?
17. Please ask questions you still have about publishing in CourseSource here:
18. Please include any additional comments here:

3.3 Follow-Up Survey

1. In the past 5 years, how many peer-reviewed research articles have you published?
2. In the past 5 years, how many peer-reviewed teaching/instructional articles have you published (for example CourseSource, American Biology Teacher)?
3. How do you *personally* measure success in your career?
4. Would any of those success measurements that you listed in the prior question be impacted by a CourseSource publication?
5. Below is a list of “standard” measures of professional success. How do you perceive that a CourseSource publication impacted/ would impact these aspects?
(scale: negative impact, no impact/neutral impact, positive impact)
 - a. Decisions regarding hiring, promotion and tenure, or contract renewal
 - b. Funding for projects or professional development
 - c. Salary
 - d. Formal recognition (awards)
 - e. Workshops or talks
 - f. Informal recognition (e.g. social status)
6. Regarding the lesson you published or intended to publish in CourseSource:
Have you shared these materials?
 - a. Yes, shared CourseSource link/pdf directly
 - b. Yes, shared these teaching materials (documents, etc.) but not through CourseSource
 - c. No
7. What could CourseSource staff/ workshop facilitators do to help you publish your materials as a CourseSource article?
8. Would you be interested in participating in an interview?