Promising Results from a Blended Inclusive Teaching Micro-Credential

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What is the inclusive teaching micro-credential?

- Expansion of a project that connects to:
  - Internal grant to develop Open edX content
  - Digital Learning Lab impact on campus
  - Biology DEI strategic plan

- Hybrid format: mix of solo computer work, small group discussions, and large group activities (2 x 2 hours)
  - Session 1: Identity and Reflective Teaching
  - Session 2: Distinguishing and Implementing Inclusive Teaching Practices
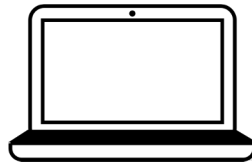
Content and activities

- Session 1 blended activities

- Online homework

- Session 2 blended activities

Platform-supported learning

In addition to hosting supportive text, video, and resources, the Open edX platform enables:

Introduction to Reflective Teaching

Being a reflective teacher means that you systematically use self-reflection to critically examine your pedagogical choices, their impact on students, and potential solutions to classroom challenges. Similar to the scientific method, a reflective teaching practice usually starts with a question (e.g., How do I engage my students more? Do I grade assignments fairly? etc.), and then requires you to gather data from multiple sources (e.g., student performance and feedback, peer evaluations, your own observations, etc.), evaluate that information, and draw conclusions to revise your teaching practices accordingly. Reflective teaching is an iterative approach to instruction that is constantly in process. Although in later units of this module we make specific suggestions around more inclusive practices, we want to equip you with more than a list of "dos and don'ts" to encourage the habit of reflection.

Try again, with something new or by modifying your approach!

Revise and Repeat

Am I grading assessments fairly? How do I engage students more? Who is participating?

Ask a Question

Use multiple sources: student performance and feedback, peer evaluations, your own observations

Collect Data

Reflective Teaching

Does my teaching method produce results consistent with an inclusive environment?

Draw Conclusions

Evaluate Results

Is there agreement across my sources of information? Are some data more reliable than others?

Annotated References and Resources

The activities and information presented in this online module resulted from synthesizing existing resources and scholarly works on inclusive teaching. Here we list a number of references, practical resources, and guides by topic that we found particularly helpful in creating this module. These curated references reflect some of the resources that have informed our thinking about inclusive teaching, although this list is by no means exhaustive. Many contain other links and references from educational research that further support inclusive teaching. Explore each topic by navigating to the pages linked to in the following list. Items with an ***** denotes that this reference/resource is highly recommended.

- General Education and Inclusive Syntheses
- Identity, Bias, and Stereotype Threat in Education
- Self-Efficacy, Belongingness, and Future-Orientation
- Frameworks for Accessible, Active, and Remote Learning
- More Strategies to Engage All Students in Learning
- Institute-Specific Offices that Support Inclusive Efforts

Small Shifts in Language Make Big Differences

We enter a classroom where Manraj is trying to use humor when closing a discussion. How can we use inclusive language when talking to our students?
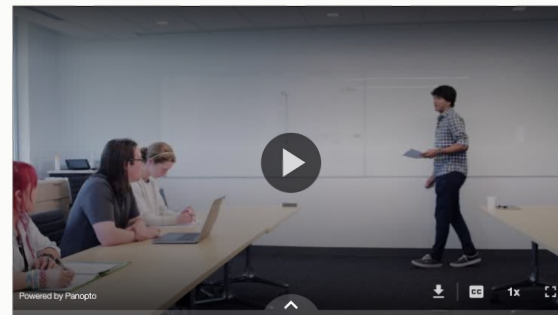
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In addition to hosting supportive text, video, and resources, the Open edX platform enables:

Personal reflections:
- Organized place to write/edit
- Open-ended responses
- Not graded / any response correct

Connecting Identity and Education

Reflecting on Your Experiences in Education

So far, we have thought deeply about our own intersectional identities. Part of that reflection implicitly involved the different contexts in which we operate. Now it is time to explicitly connect our identities to experiences in education.

Take a moment to answer some of the following questions. Your responses are primarily for your own personal reflection, but may be read by course staff. The content of your responses do not affect the scoring of this exercise, nor will your responses be shared in any identifying way. All responses are marked as correct.

Identity Affirmation in Education

1/1 point (ungraded)

What parts of your identity have been affirmed in the classroom? Think about the times that you felt seen and/or heard in an educational setting. Which aspects of your identity were validated in those moments? Do you notice any patterns about the class culture or content in times you felt affirmed?

I took a Women in War course in college and felt like my identity as a woman was affirmed then. Learning about how women have been resilient and influential throughout history (although often overlooked) in resistance, military, and peace-keeping missions validated my experiences, even as a civilian college student. My grandmother was a British Army Sergeant in WWII so I made an additional personal connection to my familial history and culture. This course was taught by a woman and mostly women were in the class, so I felt like I belonged in this learning environment.

Your response has been recorded. If you make further changes, please press submit again.

Submit

✔ Correct (1/1 point)

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Personal reflections:
- Organized place to write/edit
- Open-ended responses
- Not graded / any response correct

Formative assessments:
- Low stakes
- Unlimited attempts
- Show Answer after attempted

Inviting Participation from Students

1/1 point (ungraded)

You are worried your students are not following what you just said. You asked a question, and there are no hands raised. How do you check student understanding in real time? Select all that apply.

☐ Call on students without their hands raised (cold calling).

☑ Ask students to think about the question, talk about it with a neighbor, and then report back to the class in some way (think/pair/share).

☑ Take a moment and be comfortable in the uncomfortable silence while students think (increase wait time).

✓

Explanation
Cold-calling is a tempting way to get participants to speak up quickly, however, it sends the message that students do not have a choice in their participation and it is vulnerable to implicit and participation biases.
If cold-calling is important to you, there are ways to modulate the cold-calling practice to be more inclusive.

- **Make expectations known.** Be clear from the first day that cold-calling is part of the class culture.

- **Give a pass.** Allow students to "pass" on answering without negative consequences.

- **Be truly random.** Use a random-number generator and an attendance spreadsheet, dice, digital apps, or other such tools to ensure the randomness of calling on students.

If you are open to alternative strategies, try something that promotes agency and autonomy, such as the following.

- **Increase wait time.** As experts, we often miscalculate how long it takes for students to answer a question that we already know the answer to. Furthermore, it can be uncomfortable to wait in silence during valuable class time. However, increasing the wait time helps your students collect their thoughts and formulate deliberate responses.

- **Think-pair-share.** Allow your students to think through the question and formulate their answers, and then further explore the question with a partner before sharing out. This active learning strategy that combines wait time and peer instruction. When students have to explain their reasoning to a peer, it helps them articulate and justify their reasoning, and may reveal misconceptions or flawed logic that can be discussed in the pair before sharing out in a more public setting.
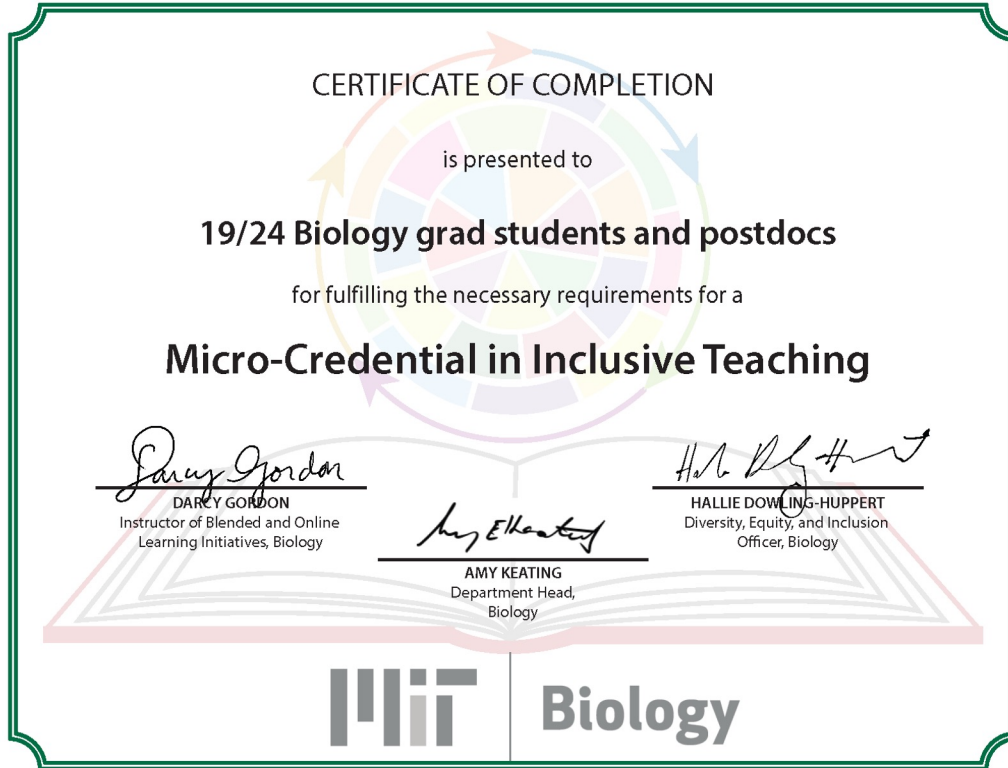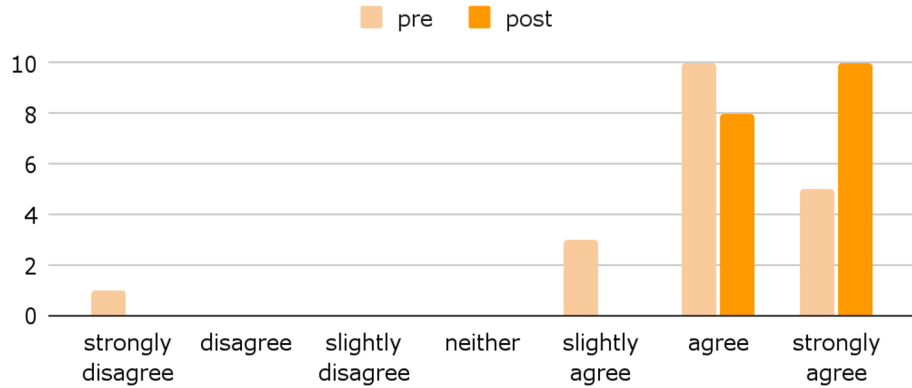
Certification

- attend both sessions in person and actively participate in group activities

- complete the online portions of the workshop:
    - pre/post surveys, homework, action plan, and final workshop evaluation

- data download allows for easy grade determination and collection of learning outcome information
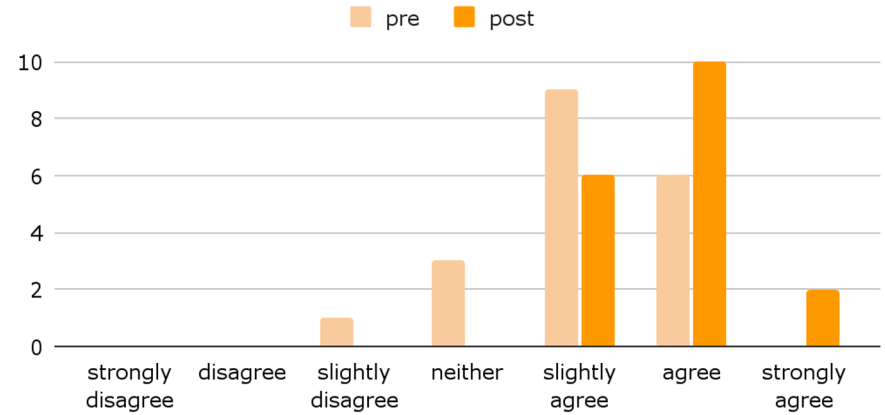
Pre/post survey results

Learning objectives:

- articulate the intersectional identities you hold,

- identify how different teaching practices can be received by diverse audiences,

- assess strategies that promote inclusivity, and

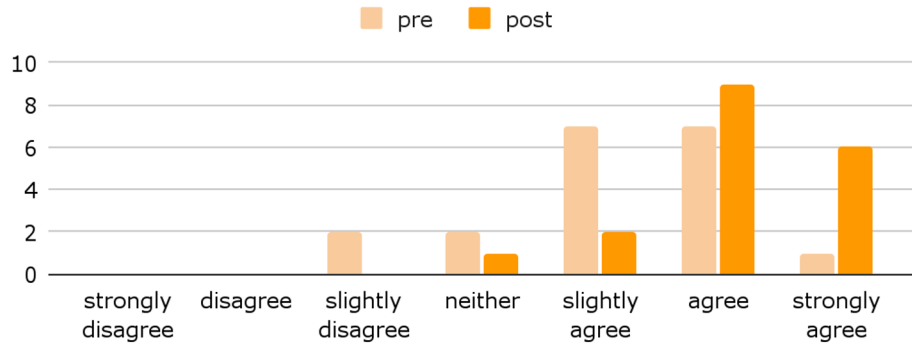- create an action plan to address inclusivity in your classroom.

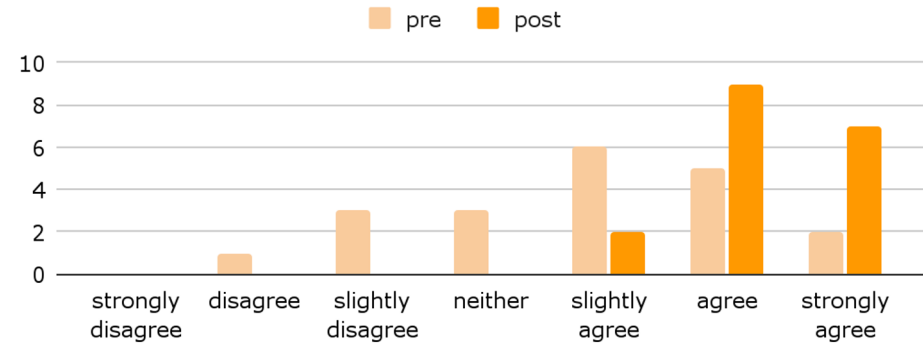## I hold multiple identities that influence how I teach and learn.

pre | post

	strongly disagree	disagree	slightly disagree	neither	slightly agree	agree	strongly agree
pre	1				3	10	5
post						8	10

I can relate to the identities held by my students.

pre | post

	strongly disagree	disagree	slightly disagree	neither	slightly agree	agree	strongly agree
pre			1	3	9	6	
post					6	10	2

I know what intersectionality means and how it relates to my teaching.

pre | post

	strongly disagree	disagree	slightly disagree	neither	slightly agree	agree	strongly agree
pre			2	2	7	7	1
post				1	2	9	6

I know how I can use my awareness of my own identity to become a better teacher.

pre | post

|	strongly disagree	disagree	slightly disagree	neither	slightly agree	agree	strongly agree
pre		1	3	3	6	5	2
post					2	9	7

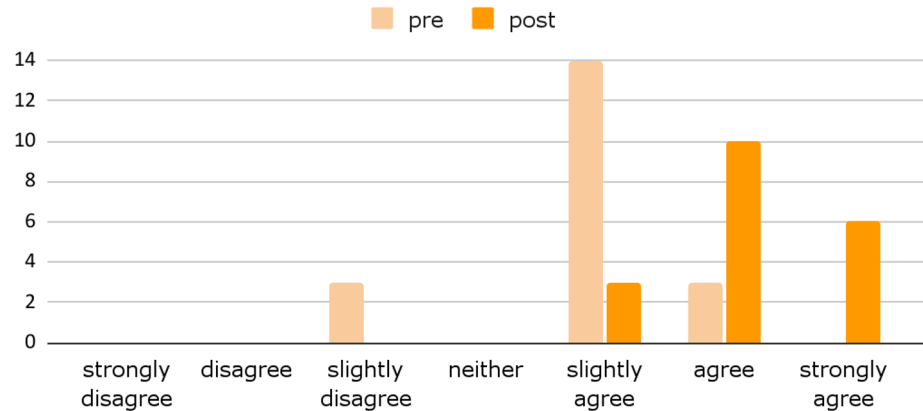I understand how some common teaching practices can prevent students from learning effectively.
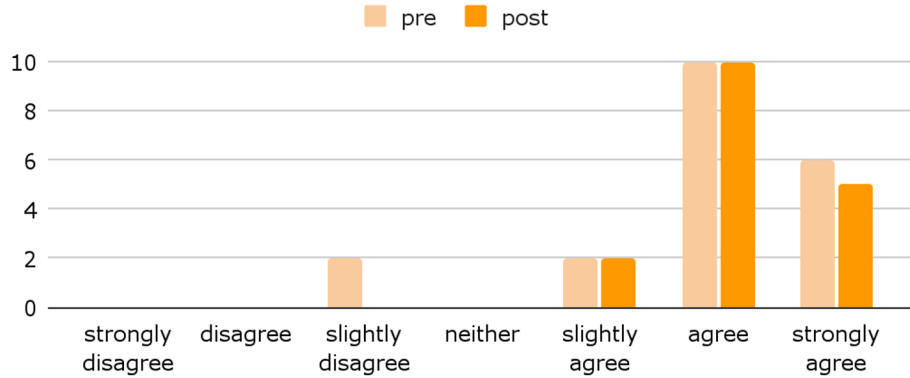
I am confident that I can critically assess the effectiveness of my teaching practices.
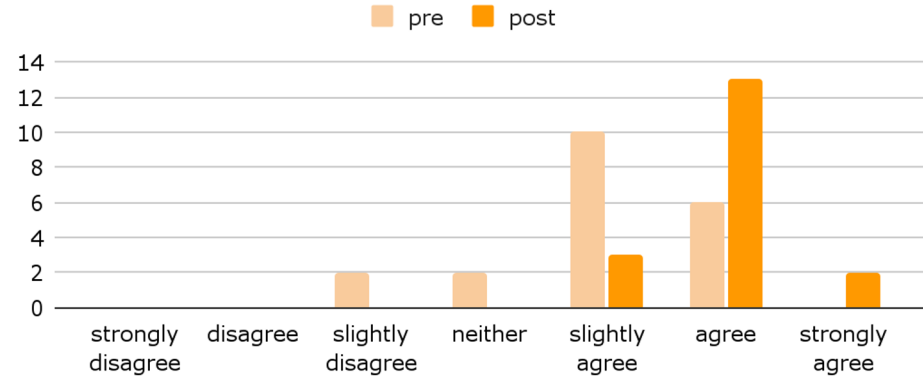
I am comfortable having hard conversations about power and privilege.
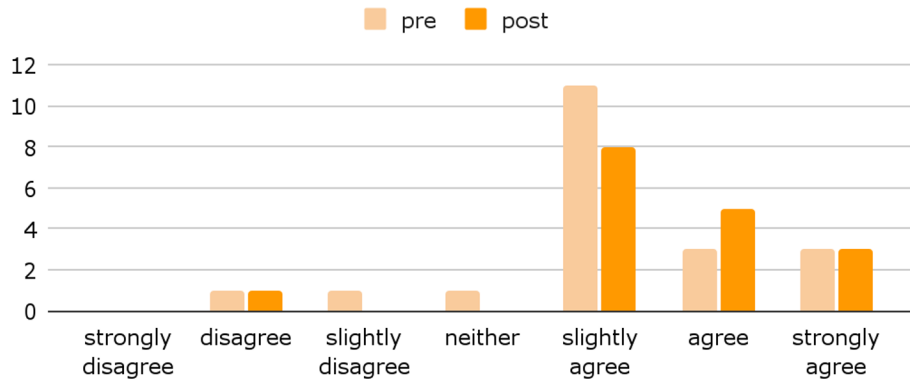
I know how to make my classroom more inclusive.

Lessons learned

ROSE (successes)	BUD (promising developments)	THORN (challenges)
Optimizes hybrid learning activities	Modular structure - continual development	Tech challenge for some participants
Institutionalizes curriculum	Accessible to entire MIT community	No good way to continually add new cohorts
Gather data on learning outcomes	Integration possible with Canvas	Video integration clunky

Acknowledgements

- Cathy Drennan (faculty sponsor)

- Mary Ellen Wiltrout (Director of MITx Biology)

- Hallie Dowling-Huppert (DEIO Biology, workshop co-facilitator)

- MITx Digital Learning Lab members

- Participant and community input

MIT Biology

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LEARNING LAB DIGITAL dll

Thank you!

Find me later to talk more!

or reach me at dggordon@mit.edu