

(<http://csmatters.org/pd-new>) P - 02peda

0bP - 0b10

Diversity and Differentiated Instruction (online)



Unit Pedagogy

Revision Date: Sep 10, 2019

Duration: 120 50-minute sessions

Lesson Summary

Summary: The teachers will learn about various ways to address and improve diversity in their classroom. They will then discuss and (potentially) record the strategies they plan to use in their classrooms.

Outcome:

- Teachers will understand the effects of implicit bias and ways to confront it.
- Teachers will understand the importance of diversity in the classroom and strategies to improve, as well as encourage, it.
- Teachers will understand that there are many resources for making a classroom accessible and the means to do so.
- Teachers will understand that there are many resources they can refer to if they have questions.
- Teachers will be able to use strategies to recruit diverse students.

Overview:

Time: 120 minutes

1. Recruiting for diversity
2. Resources and barriers
3. Discussion

Learning Objectives

Teacher Resources

Diversity and Differentiated Instruction Folder (<https://drive.google.com/open?id=0B5vAY-fhOT-icWtmMDgwb1JoVjA>)

Challenging Implicit Bias:

<https://www.edutopia.org/blog/keys-to-challenging-implicit-bias-shane-safir>
(<https://www.edutopia.org/blog/keys-to-challenging-implicit-bias-shane-safir>)

<http://neatoday.org/2015/09/09/when-implicit-bias-shapes-teacher-expectations/>
(<http://neatoday.org/2015/09/09/when-implicit-bias-shapes-teacher-expectations/>)

Effects of Bias in the Classroom:

<http://time.com/3705454/teachers-biases-girls-education/> (<http://time.com/3705454/teachers-biases-girls-education/>)

Bias in Computer Science:

<http://fortune.com/2015/04/20/the-pervasive-bias-against-female-computer-science-majors/>
(<http://fortune.com/2015/04/20/the-pervasive-bias-against-female-computer-science-majors/>)

Creating an Accessible Classroom:

<http://diversity.utexas.edu/disability/critical-ways-faculty-can-support-all-students-with-disabilities/>
(<http://diversity.utexas.edu/disability/critical-ways-faculty-can-support-all-students-with-disabilities/>)

Series of modules for making computer science classroom more accessible for students with and without disabilities:

<http://www.catea.gatech.edu/scitrain/compsci/modules/introduction.php?version=free>
(<http://www.catea.gatech.edu/scitrain/compsci/modules/introduction.php?version=free>)

STEM grants in Maryland: (could use these to get resources for disabled students)

<https://www.stemfinity.com/stem-grants-maryland> (<https://www.stemfinity.com/stem-grants-maryland>)

About encouraging more diverse students to participate in CS:

<https://docs.google.com/document/d/1gjcyPCSgXPYRJTzyfjOdPa3bZ2EAK6uFpNRNBzZw8FY/edit>
(<https://docs.google.com/document/d/13hQiWcmDf7CwR5wlK6bCRMMgN7vkqxkvTOLq-9eOY8I/edit>)

Access CS10K CBI Proceedings:

https://drive.google.com/drive/folders/0B_7_HZ9tm7qLUzhyMm4zSHlrNVk
(<https://drive.google.com/a/umbc.edu/file/d/0B5vAY-fhOT-iQXFYcUc1dGp4THc/view?usp=sharing>)

Access CS10K:

<https://drive.google.com/drive/folders/0B5vAY-fhOT-icWtmMDgwb1JoVjA>
(<https://drive.google.com/drive/folders/0B5vAY-fhOT-icWtmMDgwb1JoVjA>)

Diversity PowerPoint:

https://drive.google.com/drive/folders/0B_7_HZ9tm7qLUzhyMm4zSHlrNVk
(<https://docs.google.com/presentation/d/1ExXbRGgp1NQU0ikd0xEmQd9qro4sda-96FSfgR9aZbM/edit>)

(<https://docs.google.com/presentation/d/1ExXbRGgp1NQU0ikd0xEmQd9qro4sda-96FSfgR9aZbM/edit>)

Lesson Plan

TOTAL: 120 minutes

Encouraging diverse learners

Watch the videos included in the "About encouraging more diverse students to participate in CS (<https://docs.google.com/document/d/13hQiWCmDf7CwR5wIK6bCRMMgN7vkqkvTOLq-9eOY8I/edit>)" document. (about 12 minutes)

Take notes to use during the online class discussion on: Which strategies have you already tried? What were the results? What might you do differently? What ideas are the most appealing to try in the future?

Note that the College Board has a recommendation for an open enrollment policy for all willing and academically prepared students. What does that mean to you? What does it mean to your school and counselors?

Resources to support diverse learners and barriers to diversity

Go over some of the main points in the Access CS10K CBI proceedings, such as Quora.

View the Diversity PowerPoint in the Teacher Resources section. Take notes on good ideas and questions.

Online Discussion

Plan to discuss in the final online group meeting:

- Solutions that have worked in your classroom
- Solutions that have not worked in your classroom, with a reflection on why that might be the case
- Solutions that you would like to try in your classroom
- What unique challenges are you likely to encounter in the coming year?

Options for Differentiated Instruction

Teachers may be coming from very different backgrounds in terms of experience in teaching and classroom management and engagement. Be sure to allow time for experienced teachers to share best practices in the final online group meeting.

Could have teachers create a journal entry where they record the top three things they will do to improve and address diversity in their classroom.



(<http://www.umbc.edu/>)



(<http://www.umd.edu/>)



(<http://www.nsf.gov/>)

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