Motivating Your Students and Yourself

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> **Objectives:** This document will help you learn about how to…
> - Engage students with course material so they are motivated to learn
> - Select appropriate activities to assist with student learning and create an engaging classroom environment
> - Motivate yourself if you start to burn out during the quarter

<u>Why do we care about motivating our students?</u>
It can be tempting as teachers and TAs to demand that students have the same motivation we might have had at our undergraduate institution. However, the method that worked for us may not work for our students! If we do not follow the model demonstrated in our previous courses, what should we do instead as instructors?

Think ▪ Pair ▪ Share
What was your favorite class in undergrad or graduate school? What did your teacher do to make that class successful and interesting?
> *In this activity, think of some answers to the above question before pairing up with someone and discussing your answers. Share your answer or your partners and relevant observations from your discussion with your partner with the class.*

▪ *Star Wars* example ▪
Compare how Yoda encourages students to how the emperor teaches Anakin in the accompanying video clips. After watching discuss with a neighbor:\ how the two approaches may differ. Does how we choose to motivate our students matter?

The common approach to teaching STEM
> In science, you may have encountered the attitude, "Either you do well or you leave!" A familiar example of this idea is the weeder course, a class designed to make some students fail and leave the major, discipline, or program. Sometimes these are higher level courses. Other times they might be the first class a first-year or freshman might take in a particular topic!
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> The idea behind these courses is to toughen up students so they work harder and earn their place. We often want to teach students that experiencing failure should not prevent them from trying again. However, this method is not effective for all or even the majority of students.
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> In fact, it leaves students with the impression that science has to be **hard, demanding, and demoralizing**. It gives them little reason to invest time in a course and demotivates them from learning.

Student buy-in

Another way you might hear people discuss student motivation is by refereeing to student buy-in, how much students are willing to listen to you and trust that you are giving them meaningful work.

To show you how to earn student buy-in for your course, we will move away from common techniques of weeder courses and instead discuss practical approaches to engaging students.

How do you motivate students?
In general, students are motivated when they are supported by their professors and TAs, are confident they can succeed, and know that what they are learning is useful for something beyond passing a course. Therefore, we want to:
- build community in the classroom
- inspire confidence in our students
- teach our courses in the context of our field

Community

▪ ***Mean Girls* example** ▪
How do we connect with our students in a classroom?

Develop a personal connection with your students
- Treat your students like human beings
- Provide constructive feedback rather than simply criticizing mistakes
- Understand other aspects of their lives that may inhibit their ability to succeed

Clarify or review prior knowledge necessary for course
- Clarify from the start what your expectations are and keep these expectations reasonable
- Review critical material (equations, theories, etc.) at the start of the course rather than expecting students to remember them from a previous course
- Make connections to prior knowledge when learning something new
- Reinforce concepts by using the language of the subject

Confidence
Scaffold to concepts
- Scaffolding: building up to new concepts or ideas from ones that students already know
- Introduce each individual concept needed to understand a more complex idea, then synthesize these concepts together
- Clarify your thought process when working through a difficult problem to teach them how to draw their own conclusions
- Actively participate in their learning process by modeling

- o Teach good behavior by example
- o Show them techniques (i.e. how to titrate something, how to process data, how to use a program)
- o Then, watch as they do it themselves and make yourself available to answer questions and to validate success.

Provide opportunities for feedback
- Include active learning opportunities as your teach
  - o More engaging than standard lecture format
  - o Forces students to use knowledge as their learn
  - o Chance to give students feedback when they report on progress
- Give students the opportunity to teach each other and to reach conclusions as a group before walking them through a problem

▪ **Class discussion** ▪
How do you include opportunities for feedback in the classroom? How can you use this a tool to motivate your students?

Context
Teach with context in mind

We come to graduate school because we want to engage in interesting research and discover new things about the world around us. Invite your students to join you in that by telling them about your work and how the course they are taking might relate to it.

When you introduce new topics, take time to think about why it is relevant to your students and make sure to tell them during the lecture. Nothing is harder than paying attention to a teacher when you don't think what they are saying matters!

Be clear

A good teacher tries to make in-class activities, problem sets, and projects something that students can accomplish. One way we can do that for our students is to make the context for an assignment explicit rather than implied. Why should students care about a in-class discussion, a quiz, or a text *beyond* the grade they want to earn?

To make sure assignments live up to these expectations, make sure to clarify the <u>purpose</u> of an assignment, the actual <u>task</u> students need to do, and the <u>criteria</u> to successfully complete the assignment.

- ▪ Purpose of activities identified at start
  - o What content knowledge will students gain?
  - o What skills are they developing?
  - o What is the context for material learned beyond the actual course?

- Task instructions explained thoroughly
    - Check in with students after your initial explanation
    - Can they clearly identify the next steps of an assignment or group activity?
- Criteria for success clearly outlined
    - Multiple examples of successful work before students start a task
    - List characteristics that good work should have

Research shows that this model of teaching:
- Increases student success, specifically minority students
- Improved sense of belonging and overall motivation
- Increases academic confidence

▪ Class discussion ▪
How would you improve the clarity (or transparency) of a standard problem set?

Case Studies
The following are examples to think through by yourself or discuss with someone else. In each case, think about how you could best motivate the involved students or what steps you could take to prevent the following case from happening.

Remember you will always have some students who will not respond to your teaching methods, but we can take steps to help students get back on track and keep them motivated!

Study #1
Students seem uninterested in the material they are working through in lab, regularly complaining about equipment malfunctioning and the difficulty of the labs. You know that none of these students have ever taken a college-level lab course before this one.

Study #2
Several students seem very confused by lectures that occurred during the week preceding your recitation. As you prepare your recitation notes, you are having difficulty remembering what details might be confusing the students.

Study #3
One student in your section is struggling with the material and stops showing up to recitation. You talk to the professor and find out that the student has not shown up for lecture in the past few weeks.

How do I motivate myself?
Sometimes using all the methods proposed here can sound really intimidating! What's the best way to actually use these techniques without overwhelming yourself or your students?

- Make incremental steps to improve your classroom environment rather than trying to revolutionize your course all at once
    - Small manageable steps in the right direction are better than none at all
    - You do not need to make changes alone. Work with the people around you to make small changes so you have a support network.
- Give yourself the license to make mistakes
    - Remember to take moments for self-care
    - You will not be perfect, and that can be a relief instead of a burden! No one expects perfection so do your best and move on from mistakes in the classroom

Still feel overwhelmed?
- Rely on the people around you for help, guidance, and motivation
    - Professor, then fellow TAs
    - All resources can help you reflect upon why do you do this and what motivates you to keep going
- Talk to your advisor or your graduate student administrator if you are having problems
- CTLO is here to help and support you!
- The counseling center is a great resource for stressed TAs as well.

**What is one way I want to motivate students
in my class this quarter or in the future?**