

Notes for the Math Teacher Educators (MTEs)

***The set of four modules are designed for teacher candidates (TCs) in methods courses and/or Inservice teachers in a master's level course in mathematics education. We will refer to them as teachers.

EQTTECH Module 1: Introduction Learning About Mathematics Tech-knowledge for Equity

[Lesson Slides](#)

[Video Overview](#)

Overview of Learning Activities

1. **Activity 1: Learn Through Reading and Reflecting**
 - a. Teachers will read and reflect on how technology's affordances can amplify learning
2. **Activity 2: Learn Through Exploring**
 - a. Teachers will explore technology tools from a student perspective
3. **Activity 3: Learn From Reflecting on Exemplars**
 - a. Teachers will examine two exemplar lessons using the two lessons explored in Activity 2 and how they meet dimensions laid out in the Equity Centered Transformative Technology (EQTTEch) Lesson Analysis Tool.
 - b. Teachers will complete an exit pass reflecting on how the activities promote the dimensions in the EQTTEch Lesson Analysis Tool

Math Teacher Educators' (MTEs) Notes

Structure Notes:

- On slide 3, there are links to take you to the locations in the deck where teachers will be responding to different prompts to ease review of their reflection
- Slides, where teachers have to complete a reflection or respond, are colored in green and have an image of a pen to indicate work that should be completed by the teacher
- Teachers will be responding and reflecting in the module. There is space in the slide deck for their responses, but they will each need their own deck. You can also choose to have them respond using a different platform.

Activity 1: Learn Through Reading and Reflecting

- Launch into the day's lesson on Slide #5. Teachers should reflect on these two questions using your preferred tool
 - Suggested ways to have Teachers reflect:
 - Duplicate the slide and respond on Google Slides
 - Respond in a FlipGrid
 - Respond on a Jamboard
 - Respond on a Nearpod Collaborate Board
- Slides #6 and #7 outline the connection between NCTM's Effective Teaching Practices and [Equity-Based Practices](#) as outlined by Aguirre et al. (2013)
- Slide #8 outlines the directions for the first activity. Teachers should read [NCTM's position statement on technology](#) and a choice of another article. Either [Tech-Knowledge and diverse learners](#) (Suh, 2010) or [Enhancing and transforming virtual instruction](#) (Barlow, et al., 2020)
 - You may choose to have the Teachers read these articles prior to class, or give time during class to read through the articles
 - After reading the articles, teachers should reflect on the articles by identifying 2-3 types of technology and their affordances in teaching and learning. Teachers can record their reflections using whichever tool you want. Slide #9 provides a template for the reflection.
 - Suggested Reflection Tools:
 - LMS (Learning Management System) Discussion Board
 - Google Slides
 - FlipGrid
 - Jamboard
 - Nearpod

Activity 2: Learn Through Exploring

- This activity requires some setup from the teacher.
- You will need to make a [Seesaw Teacher account](#) and a [Desmos Teacher Account](#)
 - **Seesaw** set up instructions:
 - For Seesaw, you will need to create a class, and then have the teachers join your class. Check out this webpage on [teacher resources for Seesaw](#) for assistance in getting your

class set up and your teachers into your class. Teachers will have to create an account to access your class.

- Once your class is set up, you will need to add the activities to have your teachers try. Use the link below to add the activity set to your library and assign it to your class. (Starting at slide 32 in [Intro to Seesaw Presentation](#) can help you to assign the activity).
- [Pattern Activities- Seesaw](#)- Add this activity to your class, so they can experience Seesaw as a student.
- Once you have assigned it, you can grab the “Student Link” and add that link to slides 5 and 12.
- **Desmos** set up instructions
 - For Desmos, teachers will be able to join the activity using a code.
 - Click on this link to the [Angles in a Triangle Desmos Activity](#) and assign it to your class. Once it has been assigned, you can share a code with your teachers so they can access the activity. They can continue without signing in or creating an account.
 - Check out this [Getting Started with Desmos Teacher Activities](#) article if you need support in getting the activity set up for your teachers. This [help article on Desmos student accounts](#) explains the differences between having teachers make an account or using a one-time code
- Once the accounts are set up, your teachers will be able to explore Desmos and Seesaw as a student. Also included is a slide with links to many different virtual math manipulatives that teachers may want to play with during this time.

Activity 3: Learn From Reflecting on Exemplars

- In this activity, teachers will explore the *Equity-centered Transformative Technology (EQTech) Lesson Analysis Tool* and identify the ways exemplar lessons fit the dimensions of the tool. Slide #15 shows the tool.
- Teachers will explore the exemplar lessons through Microsoft Sway presentations which include dynamic media showcasing teacher reflections and student examples.

- After exploring and applying the *Equity-centered Transformative Technology (EQTTech) Lesson Analysis Tool* to the activities, teachers should reflect on how the activities are transformative in advancing equity. They can reflect directly on in the Google Slides (template is on slide #15), or you can use a Google Form to collect reflections that aren't shared with the class.