



Planning Significant Learning Activities

Goal

By the end of this session, you will have:

- ✓ A clear understanding of the planning process for the in-class, pre-class, and post-class activities
- ✓ Seen examples of the planning process
- ✓ Developed an outline of one class period for your chosen course
- ✓ Planned significant learning activities as part of that lesson
- ✓ Considered suitable and post-class activities

Planning process

- ✓ Divide basic and advanced learning outcomes (Talbert Step 4)
- ✓ Develop outline of lesson plan (TS 3)
- ✓ Plan detailed in-class activities and adjust outline of lesson plan as needed (timing, etc.) (TS 5)
- ✓ Plan pre-class activities (TS 6)
- ✓ Plan post-class activities (TS 7)

Example - Quadratic Formula (QF)

Basic LOs

1. State the quadratic formula.
 2. Use the quadratic formula to find the roots of a second-degree polynomial.
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Advanced LOs

3. State the conditions under which a second-degree polynomial will have two real roots, one repeated (real) root, or two complex roots.
4. Apply the quadratic formula to solve a real-world problem.

Make a Lesson Outline

- Identify the **type of activities** that you plan to do during the class period
 - ✦ **Opening minutes:** Assess pre-class prep (e.g., entry ticket or clicker questions), ask compelling question, respond to submissions
 - ✦ **Main Activities** to support advanced LOs
 - ✦ **Closing minutes:** Summarize, reflect (e.g., one-minute paper, muddiest point, what was learned)

Example – Initial QF Lesson Outline

Class time 60 minutes

LO 3: State conditions for 0, 1 or 2 solutions

LO 4: Applications of quadratic formula

Short Description of Activity	Purpose (or LO with which it is associated)	Estimated time
Allow for questions; comments about the quiz answers (if needed)	Accountability for individual space activities; compelling question as guide for what is to come	10
LO 3: Think-Pair Share with guided questions		15
LO 4: Work on multiple applications in different groups		30
Muddiest point	Summarize, synthesize, solicit questions	5

Lesson Outline – You try it! (5 mins)

Based on the LOs of **YOUR** course:

- Think about activities for the three parts of class, using the active learning techniques you have identified in your workshop preparation or in the Active Learning session
- Note what pre-class activities would support the in-class activities without going in to detail
- Assign **times** to the in-class activities without planning them out in detail.

In-class Activities – You try it! (15 min)

- Use **15 minutes** to develop a detailed description of a single activity of **YOUR** class. Use the activity planning worksheets to do so. Be as detailed as possible.

Feedback (15 min)

- Find a partner, a flip buddy, either in a closely related discipline or a different discipline, but somebody from your institution.
- Exchange your activity worksheets. Use **5 - 10 minutes** to give **written feedback** on your partner's activity worksheets (and vice versa).
- Use **5 minutes** to discuss the **most important issues** you found in each other's activities. Exchange notes.

Written Feedback & Share

Give written feedback using the following questions (5-10 minutes), then discuss the most significant points (5 mins). Afterwards exchange notes.

- ✓ Are the class activities aligned with the stated LOs?
- ✓ Are there parts of the activities that seem to be
 - Too simple (would better fit in pre-class)?
 - Too advanced (would better be done after class)?
 - Redundant in a non-productive way?
- ✓ **Can activities be completed in the allotted time?**
- ✓ Are all the necessary pieces in place (prep materials, etc.)?

Be constructive and respectful!

Next Steps

In-class activities

- Based on the feedback, you may have to adjust your outline
- Some of the activities may have to be completed after class because you are running out of time (it **ALWAYS takes longer** than you think it will)
- Maybe you need to rethink/modify your activities

Pre-class Activities

- To support basic LOs
- To prepare for in-class activities

Example - QF Pre-class Activities

Basic LOs

1. State the quadratic formula.
2. Use the quadratic formula to find the roots of a second-degree polynomial.

What are relevant pre-class activities?

- ✓ Make sure there is meaningful connection between pre-class and in-class activities



Possible Post-class Activities

- Solidify the practice done in class via a formal write-up to be turned in
- Extend some ideas from in-class practice as a project or service learning component (higher Bloom's taxonomy level)
- Give students more practice with skills and lower-level tasks of Bloom's taxonomy
- Think “**Quality over quantity**”

Post-class Activities - **WARNING:**

- Do not just use your current homework assignments
- Students have the same limited time available outside of class that they had in your non-flipped class.
- Adding the pre-class work without reducing the post-class work-time will result in students being overwhelmed, with decreasing motivation
- Combined out-of-class worktime (for average student) should be 2-3 times the class time. Adjust your activities/assignments accordingly



Post-class Activities – Your try!

For **YOUR** chosen course,

- Identify the post-class activities
- Determine what purpose they should serve
- Check whether they tie in with the in-class activities and the basic and/or advanced learning objectives
- Identify how you would assess whether students have mastered the advanced LOs through the in-class activities or the post-class work
- Consider writing a guided document for Post-class as well, or fold that into the Pre-class guided practice document

Now It's

YOUR

Time to

