

Getting Active Learning Right

Brad Coleman
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HARVARD MEDICAL SCHOOL
CURRICULUM FELLOWS PROGRAM

NARRATIVE DESCRIPTION

This 55 minute workshop should provide participants with strategies to introduce activities into their classes in a way that smoothly integrates with the class flow and maximizes the educational benefits for their students. The focus is on aligning the type of activity to the content you want to teach, to the characteristics and prior knowledge of your students and to the level of understanding you want your students to be able to demonstrate.

PART I. The Rationale for Active Learning (10 minutes) [15]

This is a short slide deck that

- 1) provides evidence that active learning leads to improved learning/retention
- 2) demonstrates improvements in performance among diverse students
- 3) highlights the heterogeneity in outcomes in active courses

PART II. What differentiates good uses of active learning from bad ones?

II-A. Introducing the mechanics of active learning (10 minutes) [25]

This activity will give us the base material for a discussion about ways we've seen active learning used well, activate the student's prior knowledge to allow them to make connections to strengthen retention and support the creation of a mental model of the elements of an active learning exercise.

prompt

Consider your own experiences with active classrooms. Think about a class where the active learning felt successful and improved your understanding. Then think about a class where the active approaches didn't add much or were detrimental to your experience.

In your opinion, what characteristics of each experience made it successful or unsuccessful?

We will take 3-4 minutes for this activity.

[As mentioned above, this exercise is designed to get students involved, activate their prior knowledge and support their mental organization of the content. These are pretty modest goals so a short and simple activity makes sense. BUT, because the students are just asked to freely submit ideas, there must be some opportunity for feedback on which ideas are correct and an opportunity to put those ideas into context. Those are the goals of the list making, discussion and slides that follow. This activity could have been done by simply asking for people to submit their responses. By using PollEverywhere the students get to see all of the responses. When I then ask for people to contribute to the list, they can say something that someone else submitted which both lowers the bar for participation and reinforces the better ideas.]

These details generate a list of things to consider. Break them into two groups: **operational** and **intellectual**.

operational (HOW)	intellectual (WHAT)
smooth transition	appropriate question difficulty
confusing instructions	unrelated to rest of class
etc...	etc...

Begin by filling this out on my own to more efficiently get through the obvious ones. Then can ask the class for any additional ones they thought were worthwhile and where they go.

—Keep an eye on the clock. Let this go until 25 minutes past at the latest—

transition

“In order to create and execute a good learning activity and have it integrate into your class, you really need to succeed at both of these. But, operational success in the absence of a strong connection to your content is not really a success, so lets focus on the intellectual part first. We will come back to some of the operational best practices at the end.”

II-B. A ‘content-centric’ approach to learning activity design (10 minutes) [35]

This is a few slides that frame successful active learning in the context of how well it aligns to the course content and learning objectives. To do this I will contrast an approach that starts with the learning activity and fits in a question to one where they content is used as a source of a relevant question and THIS informs the design of the activity. This ends with a short discussion of some operational best practices (and relates them back to the previous content).

[This is a content-heavy section that is best delivered directly. Doing this in an active way would take too long given this short class period. However, the next section is a narrative example that we will use to check understanding.]

II-C. Scenario and discussion (10 minutes) [45]

This narrative example provides an opportunity for students to practice evaluating the quality of learning activities and to integrate and apply the content we’ve previously discussed.

- scenario is on a slide -

Prompt #1: “By showing either one finger or two, which learning activity do you think is better?”

[This simple activity is a zero technology way of getting everyone to vote and asking everyone to commit to a response. It also provides immediate feedback to the student (who recognizes whether their answer matches that of the rest of the class) and the instructor (who gets to see what percentage of the class gives the correct answer).]

Prompt #2: “Write down one reason why activity #2 would be considered a good learning activity and one reason activity #1 might not. Do this on your own and be prepared to discuss your reasons with the class. You will have 2-3 minutes to write down your answers.”

Let them write down answers on their own for a few minutes, then ask for volunteers to say why #2 was good. Then can contrast this with #1.

[This follow-up activity asks students to think back to what we've learned in class today and apply it to this example. This is a great opportunity to check understanding and (through the discussion) to reinforce any points that seem particularly important or about which there seems to be confusion.]

PART III. An simulation of the evaluation and creation processes

Here students will get the chance to model the behaviors that they will use when doing this for their own classes. By breaking this down into individual components, they are continuing to build their mental model for this process — in association with their own experience (content of their choosing).

The worksheet is an opportunity for the students to model the full procedure and integrate evrything they've learned by applying it to the creation of a learning activity. This mimics the real skills and knowledge to be learned as closely as possible, so represents a very good learning activity for its assessment value. Due to time constraints, I will provide the worksheet and describe it, but students will likely not have time to complete it in class. Instead it will be provided as a reference (homework) opportunity for additional practice. If they want feedback (which greatly increases the formative value), they are welcome to send it to me and I will make comments.

1) Active approaches work (we already know that), but they take much more time than the alternative. Therefore, you need to ask: **is your activity is focused on an aspect of your content that is important enough to make this use of resources worthwhile?**

—but how do you know what's important?

2) You need to have a clear sense of the objectives of your teaching and then evaluate each idea/content/skill that makes up these objectives. For each, assess possible reasons it might be worth the extra attention:

- is this idea/content/skill essential for understanding the later content?
- is this an isolated idea/content/skill that represents one aspect of your objectives?
- is this a particularly difficult idea/content/skill that typically causes students problems?
- does this idea/content/skill require the combination and application of previous content?
- is this idea/content/skill challenging enough that many students will need extra effort?

And most importantly, **the learning activity needs to explicitly and intentionally linked to one of these objectives!**

3) **What do you want your activity to do?** Some activities introduce new content. Some prepare students for future instruction, assess what they've already learned or are an opportunity to synthesize multiple ideas. With each of these comes a specific set of requirements, but most importantly, you need to think about which of these is your actual goal so you can plan the activity to best serve it.

4) Make sure your activity is actually aligned to the content AND goal you think it is. This means that if your activity is supposed to give students the opportunity to check their understanding, that the task asks them to do that and they will get the appropriate feedback to know if they do. If it's supposed to introduce new content, then make sure they get the opportunity to see if they understood the new material afterwards. This all highlights the final point:

5) The usefulness of the activity is often defined by how you follow up. Do the students get an opportunity to check their understanding or hear from their peers? Are you available to answer questions as the activity is going on?