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- Virtual Labs user since 2019
- Platforms: Connect® and Canvas



My favorite feature of Virtual Labs

My favorite feature is how true the Virtual Labs is to the actual in-person lab experience. It simulates the step-by-step process very well and is the best I have seen at providing students with an authentic experience. Students are not allowed to skip through any steps - they have to perform steps in the right order. If they do not perform it correctly, they are either not allowed to move on or their results do not work as expected. I also really appreciate the labs that have analysis questions at the end asking students to apply what they have learned and often requiring them to think about what would happen if certain steps in the experiment were not performed appropriately.

My advice for a new user

Make sure you go through the lab simulations yourself before assigning to students. The labs do an awesome job simulating the in-lab experience very well. If you are using them as a pre-lab, some of the specific methods or tools may vary from what you have available to use in your lab environment. You will want to make sure you are aware of this beforehand so you can show students how there are often different ways to accomplish the same experimental goal.



Virtual Labs Tips

- Plan ahead to get the most out of the experience for the students. Look at your lab syllabus and learning objectives before the semester begins to see where the Virtual Labs can fit. Given the virtual nature of the labs, you can also align these more easily with lecture concepts than you can with in-person labs that require more physical preparations.
- Don't be afraid to use the Virtual Labs in multiple ways they can be a great pre-lab, and as a replacement for the lab. There may be certain labs you have not been able to do in-person because of expensive materials, time restrictions, insufficient prep or lab staff, etc.
- The Virtual Lab questions and information are also a great resource for writing questions for lab assessments. I commonly use the Virtual Lab questions or closely related questions on my lab exams. For upper level courses where I want students to critically think about the lab concepts, protocols, and materials on a very deep level, I will also assign follow-up questions that build on the Virtual Lab questions. Make sure to use all resources that are available with the Virtual Labs and not just the simulations.