

# Throwing the Baby Out with the Bathwater: Could a Less Sophisticated Technology Be Better Suited for Our Students' Needs Than A Digital Technology?

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Many students have difficulty with concepts such as aerobic respiration that apply knowledge of biochemistry. Traditionally instructors have used the microrespirometer to demonstrate aerobic respiration for organisms as diverse as plants and animals. These demonstrations require little equipment and have a fairly low cost. However, electronic probes are now often favored over microrespirometers. Students may not benefit from this change as it may be more difficult to understand the process of respiration without being able to observe it and work with the data directly. An average biology student using an electronic probe may lack understanding of both the device and the fundamentals of aerobic respiration because the device and its accompanying software do the work of visualizing data. However, students may benefit from using the less sophisticated microrespirometer as they will need to visualize the data more directly. In turn this may lead to a better overall understanding of aerobic respiration

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