Does active learning in breakout sessions lead by peer facilitators improve student learning in a large introductory science course?

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Educators are trying to figure out ways to increase student learning and retention in large introductory science classes. These large introductory classes are sometimes criticized as impersonal and “weed out” courses in which only the top students survive to advance to the smaller upper-division classes. These introductory courses can be especially daunting to first generation students, and low grades in these classes can quickly turn potential scientists away from STEM fields. In an effort to make an introductory biology class into a smaller, more personal experience, and more importantly, increase the opportunities for students to actively use the concepts they are learning to solve problems, we created an introductory biology class that utilizes peer facilitators to lead small breakout sessions. These breakout sessions occur during normal class time and are focused on active learning strategies to help students answer exam-like questions and to apply what they are learning in lecture. In this poster we report how students performed on an initial exam given before experiencing these breakout sessions and compare it to how they performed on a subsequent exam after utilizing these peer-facilitated breakout sessions. In addition, we report attitudes of students in the class as well as the attitudes of the peer facilitators with regard to the benefits of these sessions and if they feel these sessions are good uses of class time.

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