

### *Can In-Class Assignments Assist Students?*

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Not all subdisciplines of chemistry are created equal when it comes to ease of understanding in the classroom. Some are more difficult and complex for students to grasp and learn effectively. The research group determined some of these challenging chemistry topics in relation to student learning and understanding through the use of peer-reviewed sources from archives and journals. Then, after assessing points of contention, the group identified potential causes of misunderstanding and lack of engagement. Each researcher designed a supplemental activity related to one of these challenging topics and applied it in a second-semester general chemistry classroom. These supplemental activities were created to try to combat concerns within the subdiscipline that impair or hinder student learning and understanding. The supplementary assignment was then given to one section of Chem 1212, while a second section was taught by traditional lecture alone. Then, identical assessment questions were created and incorporated into both sections' exam to determine whether the approach affected the students' ability to understand the topic or whether it had no effect. The results of this experiment will be discussed and analyzed in a poster presentation that is created by the research group.