Faculty and Student Goals for Undergraduate Chemistry Laboratories

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We have carried out a program of research focusing on determining faculty and student goals for laboratories. The faculty perspective has been investigated via a mixed methods study to articulate the goals, strategies, and assessments used in undergraduate teaching laboratories. The results have allowed us to discuss faculty goals across the curriculum with an understanding of broader goals such as critical thinking skills and experimental design, and as well as differentiating across the curriculum where faculty in place less emphasis on research like experiences and writing skills in general chemistry than other courses in the chemistry curriculum. Additionally, we have investigated the student perspective of laboratory with the goal of comparing it to the faculty perspective and improving instruction. Results of our research about the goals of majors and non-majors will be discussed as well as initial forays into improving laboratory instruction.