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Student Driven Research Projects in the Calculus Sequence

In this talk, I will discuss creating student driven research projects in Calculus classes. As an undergraduate student, I struggled with projects in math classes because it felt like high- stakes busy work; my grade relied solely on the final product of a project that didn't interest me. When tasked with creating research projects for my own Calculus 2 and Calculus 3 students for a Research Symposium, I prioritized creating research projects around students' interests and that rewarded students' effort on the project. Students picked the topic as long as it related to Calculus 2 or 3 and decided on actionable goals for the project. These actionable goals were the basis of the grade for their final product. The grade for the whole project was spread out over a series of check-in meetings, the final product, and a post- reflection. During these check-in meetings, students could re-evaluate and update these actionable goals. In this way, students were directly involved in not only designing a project that genuinely interested them, but in how that project would be graded. I will share the execution of these research projects, the student reception, and perceived successes and shortcomings.