Karl RB Schmitt* (krbschmitt@gmail.com). Client-Based Projects and Transformative Failure as an Introduction to Data Science.

Data science is a field that is executed ‘in-context’, that is, in a domain on specific needs or questions. At Valparaiso University, students experience this throughout their degree starting with semester-long client-consulting projects in our "Introduction to Data Science" course. This sets the stage for later learning, providing an exciting engagement with the field, but also leading students to experience transformative failures which improve their data acumen. In this talk, I will provide an overview of the data science topics covered, but more importantly, I will talk about the other skills that are included in this course. After teaching it multiple times, the format was evolved to provide more significant support to the students during their projects. This shift was important for later success in the major and also led to significant student success in jobs, research, and other venues. (Received September 14, 2020)