“TEACHING STUDENTS TO THINK LIKE SCIENTISTS”

Research has provided valuable insights as to the nature of scientific expertise (i.e. the details of what is involved in thinking and making decisions like a scientist), and how these capabilities are developed. These insights provide guidance for improving the teaching and measuring science learning for all levels of university students. I will show how to apply these concepts in a variety of different science courses from introductory to advanced, and some of the research showing the relative effectiveness of different methods of teaching science.