Can Complex Instruction and Inquiry-Based-Learning make a first-semester Real Analysis course more accessible for students? Preliminary report.

Real Analysis sequence is one of the most challenging courses for our undergraduate students at California State University, Monterey Bay (CSUMB). This is one of the main barriers for students to graduate on time. After teaching this course for many years with a problem-solving approach and the traditional lecture format we moved to teach an IBL course this year. We are using the IBL pedagogy in a group work format where students work in groups on group-worthy tasks, a concept inspired by Complex Instruction. The challenges our students face ranges from not having good proof writing skills to not having enough time to study due to working full time. Bringing components of Complex Instruction to the IBL course is helping to have an equitable learning environment in the classroom. This session will share the specifics of the course and how we are incorporating both IBL and Complex Instruction to the benefits our students. We will share students’ experience and what we learned from this implementation and whether we are able to make real analysis more accessible to our students. (Received September 25, 2018)