Mass education is a fact of the 21st century, whether educators like it or not. Growing demand for higher education will continue to increase class sizes, bringing challenges in relation to students’ engagement and learning outcomes. Appropriately designed and equipped learning spaces may improve students’ engagement and outcomes in large classes. This paper describes our experience revamping a large operations research unit’s practical classes. The aims of the revamp were to increase students’ interaction with tutors and each other, and to develop students’ verbal skills and confidence through short unrehearsed presentations. We narrate three iterations of our action research cycle, with reflections based on feedback from students and tutors, and also from peer observation. Of particular note is how the innovations relied on the design and technology of the active learning space.