

1145-H1-691 **Malcah Effron*** (meffron@mit.edu), MIT, E18-228K, 77 Massachusetts Avenue, Cambridge, MA 02139. *Term Paper Two Ways: Assessing Communication and Comprehension with Multiple Audiences.*

The communication intensive courses in the majors at MIT are designed with two primary learning outcomes: students' ability to communicate mathematics and demonstrate conceptual understanding of the course topics. The final term paper assignment for 18.100P Real Analysis thus formatively and summatively assesses students' abilities to communicate both to mathematicians and to lay audiences. In a project scaffolded with activities and drafts, students select a problem and then write up their understanding of its solution in two ways: first, as a math article with formal proof and second, in a genre appropriate to a non-mathematics audience (e.g. computer documentation, high school classroom activity, or pop science magazine article). In writing the same mathematical content for two audiences of different backgrounds and reading goals, the students grapple with their full understanding of the analysis content as well as their ability to communicate the content. This paper illustrates how a "term paper two ways" allows the students to demonstrate and the instructors to assess, formatively and summatively, students' command of the subject and their ability to communicate it effectively. (Received September 12, 2018)