This paper reports the design, implementation and evaluation of a discipline specific online report writing resource for undergraduate science and engineering students, known as “Write Reports in Science and Engineering” (WRiSE). The aim of the ALTC funded project was to provide a free open-source resource on discipline specific writing and to assess the impact of this online learning and teaching environment on students’ report writing. WRiSE was developed over two and a half years by a cross-institutional and cross-disciplinary collaborative team made up of subject specialists, learning advisors and eLearning specialists. Conceptual design was informed by Constructivist Learning Theory and genre pedagogy in the Systemic Functional Linguistics tradition. The resource contains nine modules from seven disciplines. Each module has a “Help with Report Writing” section which details the structure, conventions and technical language for each report type, as well as a “Help with Understanding Content” section which contains exercises on key concepts related to the report. The site also contains audio files which address the process of report writing and lecturers’ expectations. Evaluations showed that WRiSE users attained higher marks than non-users in their report assignments. Users also rated WRiSE highly for: developing understanding of the report writing requirements in their discipline; increasing awareness of strengths and weaknesses in their report writing; and, for deciding what changes to make to their report. WRiSE works best when integrated into the curriculum and when it is consistently promoted and demonstrated by lectures, tutors and learning advisors.