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# TRANSFORMING SCIENTIFIC WRITING SUCCESS FOR FIRST-YEAR BIOLOGY STUDENTS

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**SUBTHEME:** Assessment

For many first-year undergraduate biology students, writing a scientific report can be an overwhelming and daunting experience. Transitioning to unfamiliar academic standards in higher education, coupled with a lack of prior experience, poses considerable challenges in adapting to communicating analyses and ideas through scientific writing. To support 900 students in a first-year human biology unit with a major scientific report assessment worth 25% of their final grade, we developed comprehensive online resources, including instructional videos and a customised self-directed module aligned with grading criteria. The online module provided structured guidance and examples for each assessment component, becoming a frequent reference for students during the writing process.

In addition, we implemented personalised 15-minute draft feedback sessions before submission, conducted both in-person and online, scheduled via the LMS booking calendar. Each student was offered one session, ensuring equitable access to instructors. These sessions, taken up by 50% of students, improved student performance with overall marks increasing by 10.6% for participants. Students found the feedback sessions a useful supplement to the online resources, particularly valuing the opportunity for one-on-one discussion with an instructor about their ideas, clarification on interpreting and meeting rubric criteria, and tailored suggestions for improving their drafts.

To ensure consistency in feedback and fairness in the assessment write up and marking process, we implemented several measures. Each student was offered one feedback session, ensuring equal opportunity for individualised guidance. Markers and instructors utilised the same resources and grading criteria as students, supplemented by training for the feedback sessions and marking. Post-submission, additional feedback sessions allowed students to seek clarification on grades and written feedback, including an option to request mark reviews from coordinators. This multi-layered feedback system, combined with a moderation process involving training and auditing, addressed potential inconsistencies in marking and feedback quality. Our comprehensive approach increases accessibility to instructors for individualised support and provides a strong foundation for fair assessment practices in a large student cohort.

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