



Contribution ID: 6

Type: Talk

Contributed talk: Development and evaluation of an assessment rubric to enhance student understanding and development of scientific writing skill

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Scientific writing encourages students to develop and support an argument and communicate their findings in a clear and concise manner (Kalman, 2011). Teaching effective scientific writing skills requires clear communication to students what is expected in relation to the structure and content of a scientific report. Assessment rubrics are tools used to accurately communicate assignment requirements by articulating the structure and components of the assignment and have been shown to increase consistency in marking (Andrade and Du, 2005). Co-construction has the potential to enhance shared understanding of an assignment's learning outcomes and offer students the opportunity to be active in their own learning by engaging with the rubric to self-assess the quality of their work before submission and improve their academic performance (Bacchus et al, 2020). The aim of the study was to evaluate the efficacy of a rubric co-designed and developed to support and improve student understanding of how to appropriately structure and write a scientific report that effectively communicates the information.

Staff and student focus groups were utilised to elicit opinions and perspectives as to what to include in a scientific report rubric. The co-developed rubric was used to assess and provide feedback for a scientific report in an MPharm module and marks were compared pre and post rubric. Following the report feedback staff and student questionnaires were used to gather opinions on the usefulness of the rubric and to collect thoughts on how to further improve.

Consultation with staff and students on the rubric were overwhelmingly positive with students highlighting the rubric was 'self-explanatory' and staff stressing that 'critical analysis' and 'clarity' were important to include. Following use of the rubric the majority of students had less queries and all students agreed that the rubric clearly communicated the assignment requirements and adds to the learning experience.

References

- Andrade, H.L. and Du, Y. (2005) Student perspectives on rubric-referenced assessment. *Practical Assessment Research and Evaluation*, 10(3), 1-11.
- Bacchus, R. and Colvin, E., Knight, E.B., Ritter, L. (2020) When rubrics aren't enough: Exploring exemplars and student rubric co-construction. *Journal of Curriculum and Pedagogy*, 17(1), 48-61.
- Kalman, C. (2011) Enhancing students' conceptual understanding by engaging science text with reflective writing as a hermeneutical circle *Science and Education*, 20, 159-172.

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Primary author: LOWRY, Deborah

Presenter: LOWRY, Deborah

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