

Commentary

Critical Evaluation of Effectiveness of Assessment and Feedback Practice Using the 4009BIO Module as a Case Study

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Abstract

The 4009BIO is a Year-1 second/third-semester module that covers cellular structure and communication. The assessment tasks are four mandatory case study scenarios, each with background information and questions related to numerical/data analyses and brief essays. The students receive feedback in the form of formative feedback, which is usually provided through face-to-face/virtual classroom setting, as well as written summative feedback. The students are encouraged to seek additional feedback through one-on-one meetings with the teaching team or virtually using the Teams platform. The students enrolled in the module are predominantly international students who contribute diverse perspectives and experiences to the learning environment. An overview of this student cohort shows that they are sociable and enthusiastic to learn and are likely to engage in group discussions and collaborative learning. My assessment and feedback practice are designed to provide a targeted support to guide students through a step-by-step process of understanding the assessment tasks, to improve their comprehension and foster higher levels of engagement, as well as enable the students to complete the assessment tasks with confidence and effectiveness. The assessment design aligns with the module's learning outcomes, and low-stake practice opportunities are incorporated. Feedback practice involves prompt, non-judgmental feedback, and regular review of feedback templates.

Keywords

Assessment, Case Study, Feedback, Module

1. Current Assessment and Feedback Practice

1.1. Assessment Literacy: Launch of Assessment Tasks

The start day of the 4009BIO module is traditionally used to launch the assessment tasks. This includes offering the

background information on the module assessment tasks, module delivery plans, marking and assessment criteria, due dates, and learning outcomes (LOs) in a clear and accessible manner. For further guidance, I outline the specific standards and expectations against which students' reports will be evaluated as clearly defined in the marking rubrics. Evidence

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suggests that students can have a better understanding of the standards and expectations of their assessment tasks and improve their evaluative judgement skills by self-analysing the marking rubrics and assessment criteria [8]. The standards also cover the written report content, depth, structure, organisation, originality, and adherence to assessment guidelines.

The guidance is summarised in PowerPoint slides that are made available to the students prior to, during, and after the module introduction session. Providing the students with prior access to the assessment guidelines promotes active learning, and unrestricted access to the assessment resources allows them to refer to the assessment standards and expectations throughout the module period, thereby promoting inclusivity, universal design for learning, and a clear understanding of the evaluation process [17].

Likewise, I give formative verbal feedback during the launch of assessment tasks. Formative feedback helps to clarify the assessment tasks and encourages discussions about the importance of feedback in improving their learning experience [6, 14].

1.2. Assessment Design and Practice

I was involved in the design of the 4009BIO assessment tasks that aligns with the module LOs. The alignment of the assessment tasks with LOs promotes focused learning and gives validity to the assessment in a measurable manner, which makes the assessment process equitable and motivational [4, 19]. Furthermore, the module assessments have been designed to be relevant to real-world applications and best support the appraisal of skills or knowledge of the 4009BIO indicative content. To design authentic and secured assessments, the assessment tasks should be tailored to engage and connect to real-world applications relevant during and after the student's academic journey [1].

In addition to designing the 4009BIO assessment tasks to evaluate the student skills, I have incorporated low-stake practice opportunities connected with the assessments during lecture and workshop sessions. Low-stakes assessment practices are highly valuable for enhancing student learning and performance and offer opportunities connected to diverse learning styles and abilities while preparing the students for higher-stake assessments [2].

To promote inclusivity, I have incorporated a diverse range of formative and summative assessment tasks across the module to allow students with different strengths to demonstrate their learning effectively. In explaining the assessments, I use understandable pictorial representations and analogies instead of relying solely on plain explanations of the concepts. The use of visual representation ensures that everyone has access to clear and understandable assessments [15, 20]. I encourage students to discuss difficulties and concerns regarding the assessment tasks from a social constructivist standpoint.

1.3. Feedback Practice

1.3.1. Prompt Feedback on Assessments

I assist students in the process of submitting their summative work by ensuring that formative feedback on their assessments is early enough to the submission deadline. Providing timely formative feedback to students helps improve their learning strategies while motivating and preparing them for summative assessments [6, 10]. The 4009BIO formative assessments are usually in the form of model questions and answers sessions.

At the completion of the assessment tasks, I give timely feedback while the content and scope of the assessments are still fresh in the students' memories. My feedback is specific and directly connects with the assessment criteria, giving explicit guidance on the areas of the report that need improvement (feedforward) and areas of strength [7].

Finally, I promote a non-judgmental approach in my feedback when pointing out errors in the students' work. Therefore, I refrain from the use of negative terms such as 'poor', 'weak', 'lazy', etc. in my feedback practise. The sole aim of my feedback is to provide constructive remarks and encouragement as applicable while avoiding language that may discourage or demotivate the students and derogate their self-esteem.

1.3.2. Alignment of Feedback with Learning Outcomes

Above all, I make sure my assessment and feedback are in alignment with the module LOs. I do this by using standardised feedback or a rubric that aligns with the module LOs. Accordingly, when giving feedback, my comments are aligned with the specific marking criteria outlined in the rubrics, which are in line with the module's LOs. According to Gallagher, constructive alignment and integration of LOs, teaching, and learning activities with the assessment and feedback are crucial to creating the conditions for high-level learning [9]. I give feedback written in plain language that the students can easily comprehend, as well as ensure that the feedback is specific and actionable by the students.

1.3.3. Review of Feedback Templates

When I applied feedback templates, I periodically reviewed the feedback contents to identify areas of inconsistencies as well as areas that require improvement in clarity and consistency in my feedback across the semesters. This has provided an avenue for me to refine my feedback practice and ensure that students receive fair and balanced assessments across the semesters. Additionally, I actively encourage the students to take part in the feedback process to foster open dialogue that facilitates more feedback that truly addresses their needs. This feedback practice is supported by Cioca & Gifford, [5].

1.3.4. Technology in Feedback Practice

The use of technology has significantly enhanced feedback practice in education, offering various tools to improve the delivery, engagement, and effectiveness of feedback [13]. I apply technology such as Turnitin and its features to process and streamline my feedback. Some of the features I apply in Turnitin are the annotation and feedback templates. This practice saves me time for marking and giving feedback that is easily comprehended by the students. Furthermore, the students can access me via email and booking links for further feedback.

1.3.5. Self-evaluate and Feedback

In higher education, self-assessment and student feedback literacy are essential for fostering learning [22]. To support the students in developing their skills in judging the quality of their work, I provide the students with the assessment criteria and urge them to self-evaluate their reports before the submission stage so that they can develop an opinion on the quality of their reports. Additionally, the students can ascertain their grades and performance by demonstrating the process leading to my decision on their overall grades, thereby creating more avenues for conversations and further feedback.

1.4. Marking and Moderation Practice

Live marking and showing scores and feedback to all marking team members simultaneously is a collaborative approach to assessment that enhances consistency and efficiency. All members of the module marking team can see a live presentation of a summarised version of the feedback given to students during the marking activity. The objective of live marking is to guarantee consistency in the marks and comments provided to students by all assessors involved in the assessment and marking activity. Cross-checking of marking and comments by the marking team ensures that different markers apply the same standards when assessing students' work.

In the marking rubrics, the marking criteria are displayed to demonstrate how each mark contributes to the overall grades and performance of the students. This is to help the students set realistic expectations, as well as promote transparency in the assessment process. I frequently advise students to review their reports against the marking criteria before submission. According to Boud, the use of marking rubrics gives insights into the expectations and assessment criteria, as well as provides transparency regarding grading, especially when shared ahead of time with students [3]. The use of rubrics is very helpful in clarifying performance and promoting self-assessment and transparency of the assessment process [11].

In conclusion, the 4009BIO module has achieved a high first-time pass rate of submitted assignments and the Internal Moderator and External Examiner have deemed the feedback

and marking fair and consistent, indicating that the current approach is largely effective.

2. Proposed Enhancement of Assessment and Feedback Practice

2.1. Assessment Concepts and Design

Assessment literacy can be challenging for students. As educators, we may inadvertently overlook fundamental concepts that may be difficult for students to understand, especially non-native English speakers. This can lead to misunderstandings and hinder engagement with the learning process. The 4009BIO module students, for the most part, are coming across certain new terminologies, assessment concepts and designs. Therefore, I would want to start creating more space to supervise students to rewrite assessment criteria and LOs in their unique styles to enhance their confidence and assessment literacy. This will improve the clarity of the assessments and promote discussions around applying real-world scenarios/case studies and feedback practice.

2.2. Exemplars and Generic Feedback

According to the 4009BIO Module Evaluation Questionnaire (MEQ), the students need more teaching staff supports. The use of exemplars will serve the purpose of supporting students' assessment literacy. My experience in teaching in the 4009BIO module has shown that students are often unsure whether their written reports followed the acceptable standards and format. Therefore, guided examples will aid those new to case study analysis. Accordingly, using high- and low-quality exemplars of written reports will help the students understand the appropriate format and how their reports will be evaluated. The use of exemplars has been reported to significantly enhance the student's assessment literacy, by guiding them through to reflect on their areas of strength and improvement, impacting their ability to submit high-quality reports [12].

Likewise, providing generic feedback that highlights common errors found in earlier submitted reports-such as issues with referencing and labelling figures and tables-will help the students avoid pitfalls in their essays. Furthermore, I would start to create a self-assessment checklist for the students before they make their final submissions.

2.3. Student Engagement with Feedback

The feedback on the students' assessments should not only be a piece of information that mirrors their grades and performance. To this end, I would start supporting further development of students' feedback literacy skills by assisting them with how they can engage with feedback from their assessments as a guide to learning and strategies for ad-

addressing their areas of weakness. This can be achieved by using terms that encourage reflection on feedback to enhance student engagement [16].

The 4009BIO MEQ suggests the students want more engaging teaching staff. Therefore, I would start tailoring my feedback comments on the students' assignments to include specific terms such as 'how', 'what', 'why', etc. In this manner, the students will be motivated to reflect on their feedback and performance, which will encourage further dialogue, as well as develop action plans to improve their assignments from a self-regulatory learning standpoint. Additionally, I want to encourage the students to start to specify which assessment tasks they would like feedback on. These approaches will encourage the students to view assessment and feedback information as a means of evaluation and a valuable resource for their learning experience and development [21]. This perspective aims to enhance the students' overall academic experience, making them more responsive and self-regulated learners.

2.4. Peer Assessment and Feedback

In line with the social constructivism approach to learning, I would want to start tailoring my feedback to include questions encouraging students to reflect on their performance collaboratively in a sustainable manner. In this regard, I would want to promote dialogic feedback by arranging practice sessions where students would assess each other's work through peer review and sustainable feedback using blogs and portfolios. According to Sun, peer assessment and feedback practice enhance critical thinking and communication skills among students as well as foster collaborative learning experiences [18].

My goal in the 4009BIO module is to motivate students to participate in continuous meaningful discussions and peer-review feedback by applying the social-constructivist approaches.

3. Conclusion

The 4009BIO module is a Year-1 course on cellular structure and communication, primarily aimed at providing formative and summative feedback to improve comprehension and engagement. The module's assessment tasks are launched on the start day, providing clear information on tasks, delivery plans, marking criteria, due dates, and learning outcomes. Formative verbal feedback is given during the launch to clarify tasks and encourage discussions. The assessment design aligns with the module's learning outcomes, and low-stake practice opportunities are incorporated. Feedback practice involves prompt, non-judgmental feedback, and regular review of feedback templates. Technology tools like Turnitin are used for annotation and feedback templates.

Author Contributions

Paul Chidoka Chikezie is the sole author. The author read and approved the final manuscript.

Conflicts of Interest

The authors declare no conflicts of interest.

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