Evaluating an assessment for learning

Modifying formative assessment to meet student needs

Benson Wallace

American College of Education

SCI5253

Professor Deborah Huffine

18th June 2023

Evaluating an assessment for learning

Modifying formative assessment to meet student needs

Formative assessment, often synonymous with the phrase "assessment for learning", can be thought of as an umbrella term for any assessment that is non-summative or non-evaluative (Centre for Educational Research and Innovation, 2008). However, the mere fact that a given assessment is not summative and "low stakes" is a necessary but not sufficient condition for it to be defined as formative, since most definitions of the terms formative assessment and assessment for learning require (or at least imply) that the results of said assessment are used to inform and adjust future instruction (Centre for Educational Research and Innovation, 2008; Dewey, 2021; Stitt-Bergh et al.,2018). Unfortunately, it is this "closing the loop" aspect of formative assessment that is most difficult to implement and thus most often neglected (Stitt-Bergh et al.,2018, p. 27). Therefore, this paper will describe and evaluate a formative assessment used in a high school physics classroom setting, with the aim of modifying the assessment so that the information gained from it is used to maximise the achievement of future cohorts.

Describing and categorising the assessment

The formative assessment selected has been in use in its current form for one academic year. It was inspired by a format known as "feed-forward" that the University of Sunderland uses for postgraduate teacher training assignments, as described by Hidson et al. (2020). In the version of the assessment that will be evaluated in this paper, students summarise feedback they have received on a piece of criteria-based coursework, making a list of specific actions that they can take to improve their achievement in each criterion next time they submit a similar piece. The assessment can be categorised as both an artefact of learning (specifically, reviewing a class set of work samples in order to plan learning experiences for the entire group) and a student self-

evaluation (students write reflections that affect how they will approach similar assessments in the future) (National Council of Teachers of English, 2013, p. 5). Moreover, the assessment can be further categorised as both a planned-for-interaction and curriculum-embedded assessment, because reflection prompts that aim to elicit criteria-specific student thinking are written in advance, and because feedback is being solicited at a key point in the learning sequence and recorded as formative assessment data (Heritage, 2007, p. 141).

Evaluating the assessment

The selected assessment will now be evaluated against 10 important features of formative assessment that are universally acknowledged in educational research literature (National Council of Teachers of English, 2013, p. 3). To evaluate how well the assessment addresses each of the 10 features, a Likert scale rating from 1 (very poorly) to 5 (very well) will be used.

Requires students to take responsibility for their own learning – 4 (well)

Students are required to evaluate their own unique product against well-defined criteria descriptors in a rubric and seek clarification on how to interpret the rubric requirements when they are unsure. Although students are required to submit their reflections to an online learning management system, thus serving as a record that students received and acknowledged feedback on their writing, there is currently no specific check for whether students follow through with their self-suggested improvements.

Communicates clear, specific learning goals – 4 (well)

Learning goals are indirectly communicated via the available criteria rubrics, and the task expectations (to write meaningful responses to the reflection prompts) and deadline are clearly communicated; however, specific learning goals related to the activity itself (as in, what are we aiming to achieve by writing a reflection) could be more explicitly communicated.

Focuses on goals that represent valuable educational outcomes with applicability beyond the learning context – 3 (neutral)

The goals and associated valuable educational outcomes are implicit (in other words, improving students' understanding of coursework criteria). Some applicability beyond the learning context can be inferred (for example, the value of reflection as part of an iterative improvement process cycle in any real-world endeavour) but could be articulated explicitly in the specific learning goals for the activity.

Identifies the student's current knowledge/skills and the necessary steps for reaching the desired goals – 4 (well)

By summarising teacher feedback on their coursework, students are effectively creating a snapshot of their current understanding of the coursework criteria. Students also create a clear and actionable list of things to improve next time they are assessed against those same criteria (steps for reaching the desired goals). Perhaps, rather than just listing improvements for what has not yet been addressed, students could begin by identifying what they have done well.

Requires development of plans for attaining the desired goals (4 - well)

Again, the specific list of things to improve or remember to include next time they undertake a similar assessment can be considered a plan for attaining the desired goals, but the list could be developed into more detailed action plan, which could then be explicitly linked to the requirements of their next piece of coursework that uses the same criteria.

Encourages students to self-monitor progress toward the learning goals – 4 (well)

The act of reflecting on why one achieved the grades one did by comparing one's own product against criteria descriptors is a form of self-monitoring progress towards learning goals, but this could perhaps be made more explicit by use of a checklist, for example.

Provides examples of learning goals including, when relevant, the specific grading criteria or rubrics that will be used to evaluate the student's work – 4 (well)

Detailed criteria rubrics are provided; however, these have not yet been linked to specific elements of exemplars or further interpreted or clarified with "what this looks like" checklists.

Provides frequent assessment, including peer and student self-assessment and assessment embedded within learning activities – 2 (poorly)

By its nature, this assessment is only undertaken by students once per term or semester. As described above, the assessment is categorised as a student self-evaluation; however, given appropriate time and resources, it could be modified to include a peer assessment element. For the assessment to be more frequent and embedded within learning activities, it would need to be broken up into a series of smaller assessments that could be linked to specific coursework skills or criteria descriptors as they arise in the sequence of learning experiences.

Includes feedback that is non-evaluative, specific, timely, and related to the learning goals, and that provides opportunities for the student to revise and improve work products and deepen understandings – 4 (well)

Students reflect on feedback that is specific and related to the learning goals (the criteria descriptors), and in doing so, deepen their understanding of them. There are future opportunities to revise and improve work products that will be graded against the same criteria. By its nature, the feedback is evaluative (the feedback includes a point score for each criterion) and not immediate since coursework submissions are at least several pages long and teachers need time to read them and write feedback. A possible improvement could be students receiving only comments as their feedback, and then evaluating their own work against the rubric.

Promotes metacognition and reflection by students on their work – 4 (well)

The assessment explicitly requires students to reflect on their work. Metacognition is promoted indirectly, although there is potential to scaffold this explicitly.

Improving the assessment

To improve the assessment for the next cohort, several possibilities are suggested by the above analysis. Firstly, adding a peer assessment component would improve the ability of the assessment to address the feature in which it was rated the lowest. This would require additional time and an appropriate resource or mechanism for ensuring that student work is anonymised before being shared with other students. Adding a peer assessment component might result in improved engagement from students who would otherwise not have the motivation or discipline to reflect thoroughly on their own work. Another improvement that relates to several of the features discussed above could be adding an explicit requirement for students to show *how* their listed improvements were implemented in future assessments that use the same criteria. This should help to minimise wasted effort and maximise the utility of the feedback given. It will also allow students to practice metacognition, as they generalise their interpretation of criteria in the process of transferring criteria requirements from one specific situation to another.

Conclusion

By explicitly categorising and evaluating our formative assessments against commonly accepted standards in the literature, we can systematically identify effective ways of improving them. When we make the process of acting on formative feedback more visible, and support students with built-in mechanisms for doing so, we "close the assessment loop by design" (Reed et al., 2011, p. 44). It is only when the results of an assessment are used to make meaningful changes to future teaching and learning that it becomes "formative assessment that truly informs instruction" (National Council of Teachers of English, 2013, p. 2).

References

Centre for Educational Research and Innovation. (2008). *Assessment for learning - the case for formative assessment*. Retrieved June 16, 2023, from https://www.oecd.org/site/educeri21st/40600533.pdf

Dewey, J. (2021). Assessment for learning. *Salem Press Encyclopedia*.

Heritage, M. (2007). Formative assessment: What do teachers need to know and do? *The Phi Delta Kappan*, *89*(2), 140–145.

Hidson, E., Elliott, I., Sheard, S., & Bell, J. (2020). Shaping research-informed practitioners: A case study of the impact of written feed-forward targets on summative outcomes in postgraduate school-focused research modules. In *2nd Annual Faculty of Education and Society Research Institute Staff Research Conference*. http://sure.sunderland.ac.uk/id/eprint/12137

National Council of Teachers of English. (2013). Formative assessment that truly informs instruction. In *NCTE.org*. Retrieved June 17, 2023, from https://ncte.org/statement/formative-assessment/

Reed, T. E., Levin, J., & Malandra, G. H. (2011). Closing the Assessment Loop by Design. *Change*, *43*(5), 44–52. https://doi.org/10.1080/00091383.2011.606396

Stitt-Bergh, M., Kinzie, J., & Fulcher, K. (2018). Refining an approach to assessment for learning improvement. *Research & Practice in Assessment*, *13*, 27–33.