

The following report gives feedback to assist assessors with general issues and trends that have been identified during external moderation of the internally assessed Chemistry standards in 2019.

It does not clarify specific standards but provides further insights from moderation material viewed throughout the year.

## **Awarding Excellence**

When making judgement for Excellence, it needs to be ensured that all indicators of the Excellence criteria in the standard have been fully addressed. These are outlined in the Explanatory notes. The quality of evidence provided should also reflect the curriculum level. If the evidence demonstrates that the Excellence criteria have been only partially met, then the grade awarded cannot be Excellence. This is critical in distinguishing between high Merit and Excellence.

Consideration also needs to be given to the overall submission, such as succinctness and clarity.

In Chemistry, awarding Excellence requires students to show justification, elaboration, integration, and/or analysis of the chemistry ideas related to the given context.

## **Collecting evidence**

Opportunities are encouraged that allow students to collect evidence through different modes, such as blogs, video clips, etc. Such opportunities allow students to have agency on how best to demonstrate what they know.

In Chemistry, student work can be collected validly in a variety of different modes. External moderation is starting to show a wider range of modes, other than written responses, being used to collect evidence.

## **Student wellbeing**

Where students are guided in how to achieve concise presentation of assessed materials, the quality of their responses tends to improve. When students realise that quantity is not an indicator of quality, this helps to reduce workload pressures.

In terms of student wellbeing, it is also timely to consider the importance of positive contexts and guidance regarding potentially 'dark themes' or inappropriate material. While the need for self-expression and realism is not disputed, the mental and physical wellbeing of students in their learning and assessment should be a significant consideration in programmes.

In Chemistry, most samples of assessed materials are concise in their presentation. Evidence of dark themes is not seen in external moderation of Chemistry.

## Assessor Support

The Best Practice Workshops (online and face-to-face) offered by the Assessment and Moderation Team continue to be viewed by the sector as significantly contributing to improved assessor practice:

*“The workshop helped to review my own knowledge, and great to share ideas.”*

*“It was great having time to challenge my thinking in assessment.”*

Based on the success of the ‘on request’ model and the ability to have targeted support, the Assessment and Moderation Team will continue delivering this support model in 2020. Workshops or presentation slots can be requested to provide targeted support to regional or national audiences.

Additionally, we will continue to run the generic Transforming Assessment Praxis Programme, an online programme which helps assessors learn about re-contextualising assessment resources and collecting evidence in different ways to better meet the needs of their learners.

More detailed information, including how to request or register for a workshop, can be found on our Best Practice Workshop pages or by emailing [workshops@nzqa.govt.nz](mailto:workshops@nzqa.govt.nz).

## Observations from selected standards

For 91387, external moderation shows that there is some inconsistency in awarding Not Achieved and Excellence.

To reach Achieved, students need to select a topic that allows them to explore a possible trend or pattern in the quantity of a substance, and produce titres of at least 5mL (for investigations involving titration). For a trend, one variable needs to be changed to determine if this variable influences the quantity of a substance. For a pattern, the quantity of a substance is measured in relation to a measurable variable(s) – such as distance from a given location or depth of samples or collecting data from two locations to investigate a pattern.

For Excellence, students need to justify the steps taken in relation to the reactions and nature of the sample. Students who did this well could discuss the relevance of adding particular reactants in the procedure to the relevant reactions required to allow the quantity of the dependent variable to be calculated.

For 91393, external moderation shows that there is also some inconsistency for this standard in awarding Not Achieved and Excellence.

To reach Achieved, students need to explain both oxidation and reduction for the electrochemical and electrolytic processes. Successful students clearly explained the change in oxidation number of the relevant element or the number of electrons lost/gained for oxidation and reduction in both cell processes.

For Excellence, students need to justify the spontaneity of electrolytic and electrochemical processes. Evidence seen in moderation showed students could successfully justify the spontaneity by using either the cell potential calculation or the standard reduction potentials.

## Communications

### Outcome statements in external moderation reports

In 2017, moderation report outcome statements changed from '**Confidence**' statements to '**Consistency**' statements, as explained in an NZQA [Circular](#) at the time.

The previous **FOUR** 'Confidence' statements were changed to **THREE** Consistency statements. This reduction in the number of categories of statement has, in some cases, resulted in moderation report outcomes previously noted as 'Confident' now being noted as 'Not Yet Consistent'.

It is important to recognise that 'Not Yet Consistent' does not imply major issues on the part of the assessor, but that the aspects highlighted can be easily addressed through the advice given in the report.

### External moderation for 91910 and 91911

The verification period for 91910 and 91911 has finished. These standards can be selected for external moderation for 2020.