

Title of Research Project: Keep CALM And Carry On: A Cross-National Comparative Study Exploring Formative Assessment Enactment in Ireland and Scotland.

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Summary:

The aim of this research was to examine formative assessment enactment in lower second level Science classes and identify what factors can influence teaching, learning, and assessment practices. Formative assessment was the focus of this research and the definition used in this research was as follows:

“Practice in a classroom is formative to the extent that evidence about student achievement is elicited, interpreted, and used by teachers, learners, or their peers, to make decisions about the next steps in instruction that are likely to be better, or better founded, than the decisions they would have taken in the absence of the evidence that was elicited.”

(Black & Wiliam, 2009, p. 9)

In the definition above, teaching is seen as a dynamic process involving various actors: the teacher; the learner; and peers, where evidence of student learning takes centre stage. Central to this research

were two main questions, these questions had yet to be answered in the literature with a specific paucity on the factors¹ that promote or inhibit formative assessment practice.

1. How is formative assessment understood and enacted in lower second level classes in Ireland and Scotland?
2. What are the factors that shape formative assessment enactment in science classes in these countries?

The first question was concerned with the how teachers intended to enact formative assessment in their classrooms and then what enactment looked like. The second question was more exploratory. Although a sample of factors are cited in a footnote, this was not an exhaustive list. Other factors emerged from the data, and these were examined in relation to their influence on classroom practices.

Data collection began in June 2017 and continued until March 2018. Within this time four schools were involved in the research, two in Scotland and two in Ireland. Within each school two Science teachers were observed and interviewed, and school leaders were also interviewed. In total eight Science teachers (two male and six female) were observed in their lower second level classes. In Ireland lower second level classes comprised of first year students; in Scotland it was second year (S2) students. All students were between the ages of 12 and 14. Of those students, six from each class took part in the Q methodology (n=48, 23 male and 25 female) comprising of an individual card sort activity and interview. In total, just over 25 hours of lessons were observed, equating to approximately one week of science lessons per school. Each class was observed for three hours of lessons on average.

To summarise, the research followed a mixed methods approach to data collection comprised of:

- 4 school leader interviews
- 8 Science teacher interviews
- 48 student Q methodologies (card sort and interview)
- 25 hours of classroom observation and video data. Field notes were penned during observations.
- Desk research of policy documentation

For the most part data were analysed qualitatively, with the Q methodology adding a quantitative aspect. Interview transcripts and video data were coded using themes relating to formative assessment and activity theory discussed later in the methodology chapter. Q data were analysed quantitatively using PQ Method software (Schmolck & Atkinson, 2002)

This research advances the scholarship on formative assessment by adding three main findings to the field:

1. **Cultural context** plays a significant role in deciding what teaching, learning, and assessment practices are given value within an education system.
2. Teachers are lacking the **assessment literacy** to enact formative assessment effectively.
3. The current enactment of formative assessments in second level schools is not contributing to **meaning making** for students.

¹ Factors in this case refer to influences on teaching, learning, and assessment such as classroom culture, teacher professional identity, relationships, and curriculum policy.

In addition, the data illustrated that in Ireland there is a strong focus on tools for formative assessment without consideration of its true purpose: improved learning and responsive teaching. While teachers plan to enact formative assessment, they were not using it to inform teaching and learning, thus students were unable to derive meaning from these practices. The cultural context of high stakes examinations in Ireland was also undermining formative assessment enactment. Scotland had a longer time with formative assessment in their Curriculum for Excellence (Scottish Executive, 2004) however the data showed teachers were still not enacting formative assessment effectively. The findings add new knowledge to the scholarship on formative assessment. Most notably a model for formative assessment enactment is presented: the CALM model (cultural context, assessment literacy, meaning making). In addition, this research uncovered a variety of factors that were influencing formative assessment enactment including curriculum, whole school initiatives, professional development, school community, teacher professional identity, and teacher student relationships.

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