



How hermeneutics can guide grading in integrated STEAM education: An evidence-informed perspective

Article Summary

Addressing calls to develop assessment theories for integrated teaching and learning, we propose an evidence-informed perspective on grading in Science, Technology, Engineering, Arts and Mathematics (STEAM) education. We leveraged a qualitative collective case study design to generate rich profiles of three exemplary STEAM teachers' grading approaches and practices. Data sources included semi-structured interviews and artefacts of teachers' instruction and assessment practice. We analysed qualitative data from interviews and artefacts using a general inductive approach. The teachers in our study pushed back against 'objective' views of grading, whereby grades are composites of summative assessments, in favour of informed and contextualised grading, which aims to document and support a negotiated understanding of each student's learning journey. Teachers' grading practices aligned with a hermeneutic approach to classroom assessment validity: the teachers (a) collected and interpreted a wide range of evidence of student (re)learning; (b) centred students' perspectives and evidences; and (c) employed their professional judgement to determine students' grades. Teachers characterised grading as a process of accounting for all available evidence, blurring the boundaries between formative and summative assessment. Documenting the learning process, rather than focusing on products, can support deeply integrated learning. Importantly, the teachers supported students in documenting their own learning and negotiating their grades with reference to self-generated evidence. This practice stands to reduce power imbalances between students and teachers and foster students' self-regulated learning. Our findings inform a framework which STEAM educators can use to guide grading in integrated classrooms, an enduring challenge for integrated learning.

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