



Comparing student and academic grading of assessment tasks in an introductory neuroscience course

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Neuroscience Fundamentals is a 2nd year introductory cross-disciplinary course and a core component of a neuroscience major for BSc, BMedSci and BPsych students at UNSW Sydney. The course is designed around a 1-week introductory module of the brain followed by 4 fortnightly integrated modules around “hot topics” in neuroscience with enrolments around 80-100 students from diverse backgrounds. Each module concludes with a progress peer feedback assessment activity as previously reported to the society (Vickery et al., 2017; Goulton et al., 2019; Cederholm et al., 2020). Using the Moodle Workshop tool students answer a short-answer question (SAQ) followed by peer review of two SAQs using a model answer under guidance and discussion with the course convenors. The marks and peer feedback are immediately released following the conclusion of the assessment and the quality of this peer review is graded for “flagged” and randomly selected students, thus moving from assessment of learning to assessment for learning (Boud & Soler, 2016).

One of the potential issues with peer feedback assessments is that the grades given by students might significantly differ from the grades given by academic staff. We have therefore evaluated the similarity between the student markers and grades awarded by the convenors for the same assessments. Here we examine similarity of grades across 5 years of running this activity. Consistent with our earlier suggestions (Vickery et al., 2017; Goulton et al., 2019), there was very little difference between student and convenors grades, with most grades agreeing within 1 mark out of 10. In 2022 74% of students (71/96 across 5 assessment tasks) were within 1 mark of the convenors grade. Students were given the opportunity to flag if they felt their mark was unfair, although a small grade penalty applied if this “flagging” was judged to be unjustified. Only 35 students flagged their mark across the whole year, from a total of 303 assessments (across 5 tests). Generally, students also did well in answering the questions and providing peer assessment and feedback (3.97/5 across 5 assessment tasks, n= 66-74 students).

This type of peer assessment has been shown to promote a deeper understanding of content (Double et al., 2020; Reinholz, 2016; Topping, 1998), and help students identify gaps in their knowledge and expected level for answers to exam questions leading to an increased sense of control of their own learning (Price et al., 2011). Our data spanning 5 years support this notion, with qualitative feedback from students in the end of course surveys very positive and supportive of this learning exercise.

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