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Collaborative Group Quizzes as a Novel Formative Assessment

GERALD FELDMAN, George Washington University — While summative assessment is used to measure individual progress, formative assessment can be treated more like a training exercise than a formal evaluation. Thus, adding a collaborative element into such an assessment can offer particular advantages. We have instituted a novel and dynamic method for quizzes that combines individual student accountability with the benefits of collaborative group learning, thus leveraging these formative assessments as opportunities for meaningful student learning. Quizzes consist of multiple-choice questions, with half the points based on individual work and half based on group work. The latter part of the quiz uses IF-AT scratch-off cards, which are similar to lottery tickets with five covered answer boxes. Students discuss the questions in groups and then get instant feedback by uncovering the box corresponding to their collective choice. If incorrect, they continue to discuss and then scratch off a second (or third) box for reduced credit. The minimal pressure in the individual portion of the quiz is mitigated by the added points in the group phase which are earned through fruitful exchanges with the other group members. Students find the group interactions highly engaging and the suspense of revealing the hidden answer boxes quite stimulating. They deliberate over their answers very carefully, and this helps focus their attention on the relevant physics concepts being probed by the questions. Upon completion of the quiz, all correct answers are revealed, and each student knows their score. This feedback loop, coupled with the group discussion and the self-correction option, provides a powerful learning experience for the students.

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