

# **Influence of individual versus collaborative peer assessment on score accuracy and learning outcomes in higher education: an empirical study**

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## **Abstract**

Maximising the accuracy and learning of self and peer assessment activities in higher education requires instructors to make several design decisions, including whether the assessment process should be individual or collaborative, and, if collaborative, determining the number of members of each peer assessment team. In order to support this decision, a quasi-experiment was carried out in which 82 first-year students used three peer assessment modalities. A total of 1574 assessments were obtained. The accuracy of both the students' self-assessment and their peer assessment was measured. Results show that students' self-assessment significantly improved when groups of three were used, provided that those with the 20 % poorest performances were excluded from the analysis. This suggests that collaborative peer assessment improves learning. Peer assessment scores were more accurate than self-assessment, regardless of the modality, and the accuracy improved with the number of assessments received. Instructors need to consider the trade-off between students' improved understanding, which favours peer assessment using groups of three, and a higher number of assessments, which, under time constraints, favours individual peer assessment.

