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A new spin on an introductory quantum mechanics course: flipping the class

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Faced with a low pass rate, poorly prepared and disengaged students, we tried a so called “flipped” approach to teaching a 3rd year quantum mechanics course. Rather than having traditional lectures, the students were given online reading assignments on the Perusall platform. The students could annotate the notes, pose questions and discuss the material with peers on the platform. To encourage student participation, they were assigned a grade (calculated by AI) based on the assessed quality of their annotations. The students were also assigned exercises which filled in some of the details of the notes as well as more difficult problems. During class time, we discussed questions students posed online, went over the exercises and students were asked to present solutions to some problems on a randomised roster. While there was a large increase in the pass rate over the previous year, a significant fraction of students expressed rather negative sentiments after the course. We’ll present the good, the bad and the ugly results of this teaching “experiment”.

Apply to be considered for a student award (Yes / No)?

No

Level for award (Hons, MSc, PhD, N/A)?

N/A

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