Comparing multi-attempt quizzes between modules

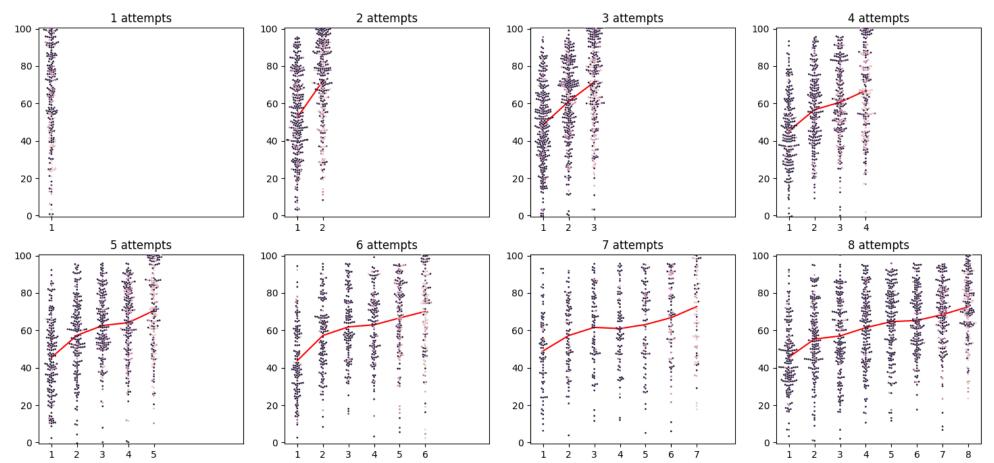30 June 2023

Mark MacDonald

Multi-attempt quiz style

- Questions all written in STACK
- Quiz is several Multiple True/False (MTF) questions, each containing:
  - A specific concept or situation to be assessed
  - Four T/F statements about that concept
- Each T/F statement has several (3-6) variants (in "Question variables")
- Students are allowed 8 attempts; after each attempt
  - They get their marks, some feedback, but not the right answers
  - The question variants randomly change (coded in "Question variables")
- Quiz admin:
  - Each weekly quiz is worth 1% of their overall grade
  - Negative marking is used (implemented using PRT in STACK)
  - Their highest mark counts
  - Each attempt has a time limit of 2 hours
  - 10/20/60 minute delay between attempts
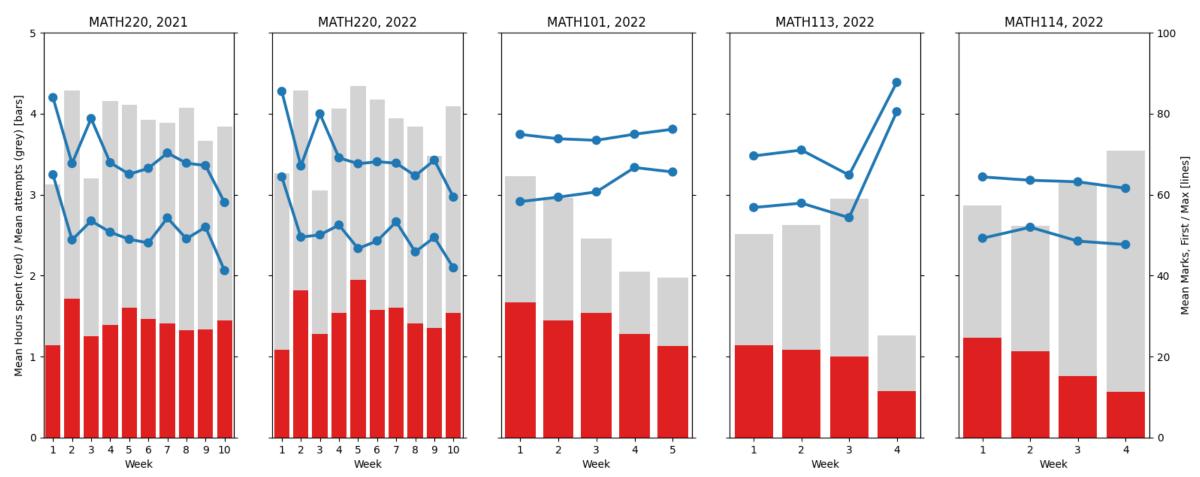
Learning gain

MATH220 2022 scores separated by total number of attempts; Quizzes [1, 2, 3, 4, 5, 6, 7, 8, 9, 10]
Colour represents Time Left
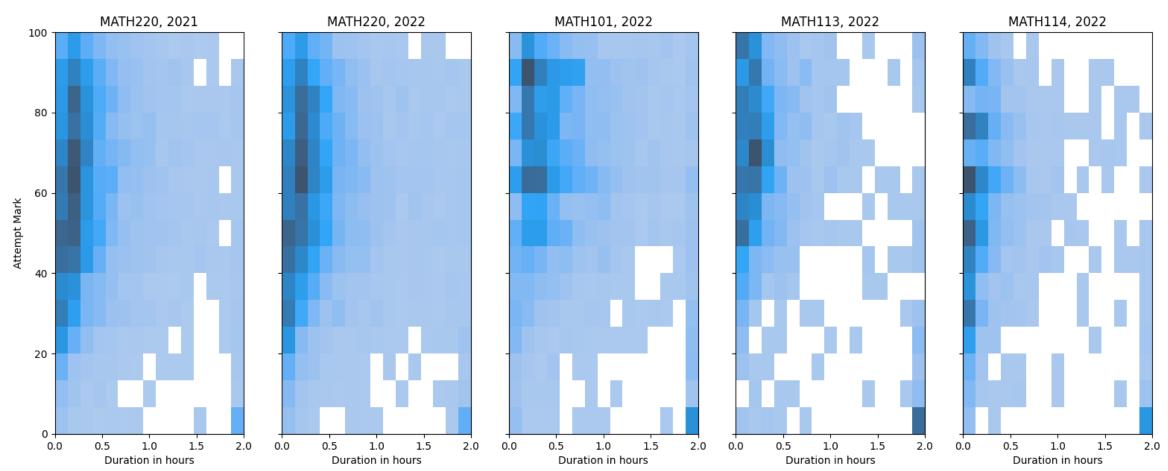
Quiz difficulty vs. Student effort

Quiz difficulty vs. Student effort

Student marks vs. effort

Mark vs. Duration for each attempt

Future plans

- Change some design choices, in attempt to improve outcomes

    - Reduce delay between attempts to 5 minutes

    - Reduce duration of quiz from 2 hours to 1 hour

- Introduce T/F questions into Y1 formative programming assessments

Thanks!