

# Automating Assessing an Artefact

Malcolm Hutchison, Matthew Collins

School of Electronics, Electrical Engineering and Computer Science

{m.hutchison,m.collins}@qub.ac.uk

## Background

- Increasing class sizes (>100)
- Increased in-term assessment (60%)

## Previously

- Small lab classes (<40)
- Weekly lab sessions
- Students record labs in lab books
- Lab books marked at end of lab class

### Positives

- Prompt individualised feedback

### Negatives

- Marking time consuming
- Does not scale well
- Attempts to speed-up marking decreased feedback quality
- Marked how well students recorded, not how well they actually could do
- Stressful for students (“weekly assessment”)

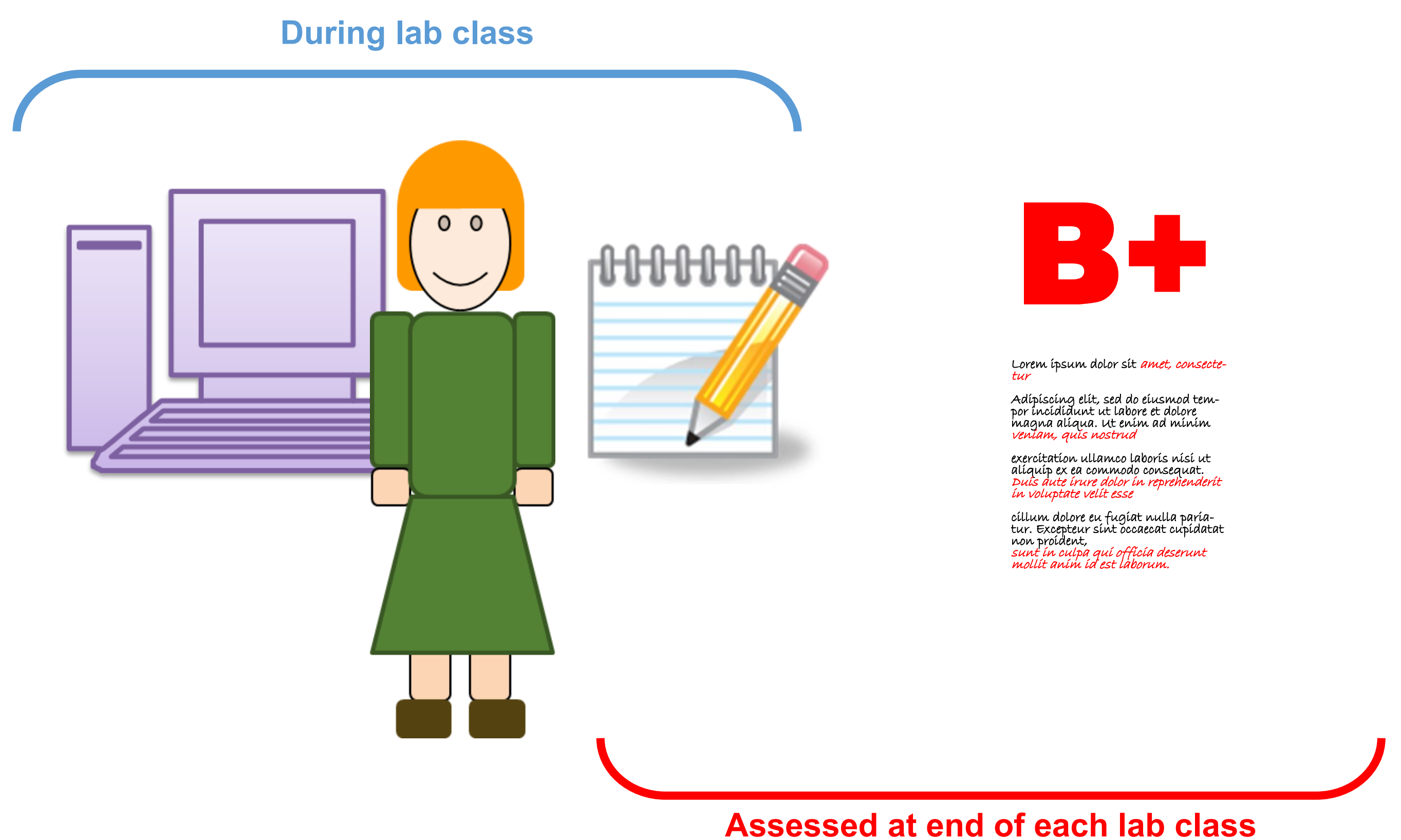


Figure 1: Lab classes each week (previous)

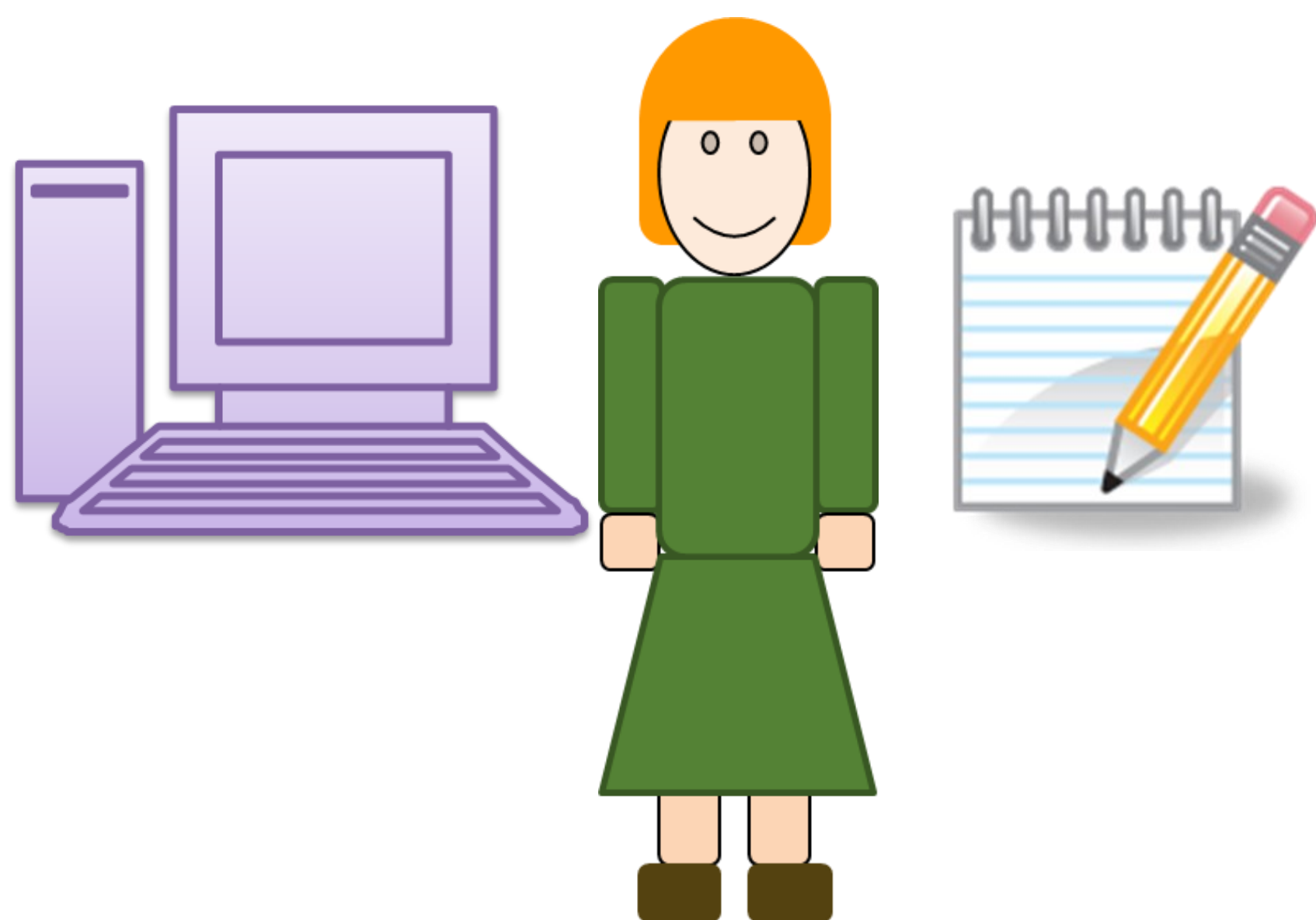


Figure 2: Lab classes each week (now)

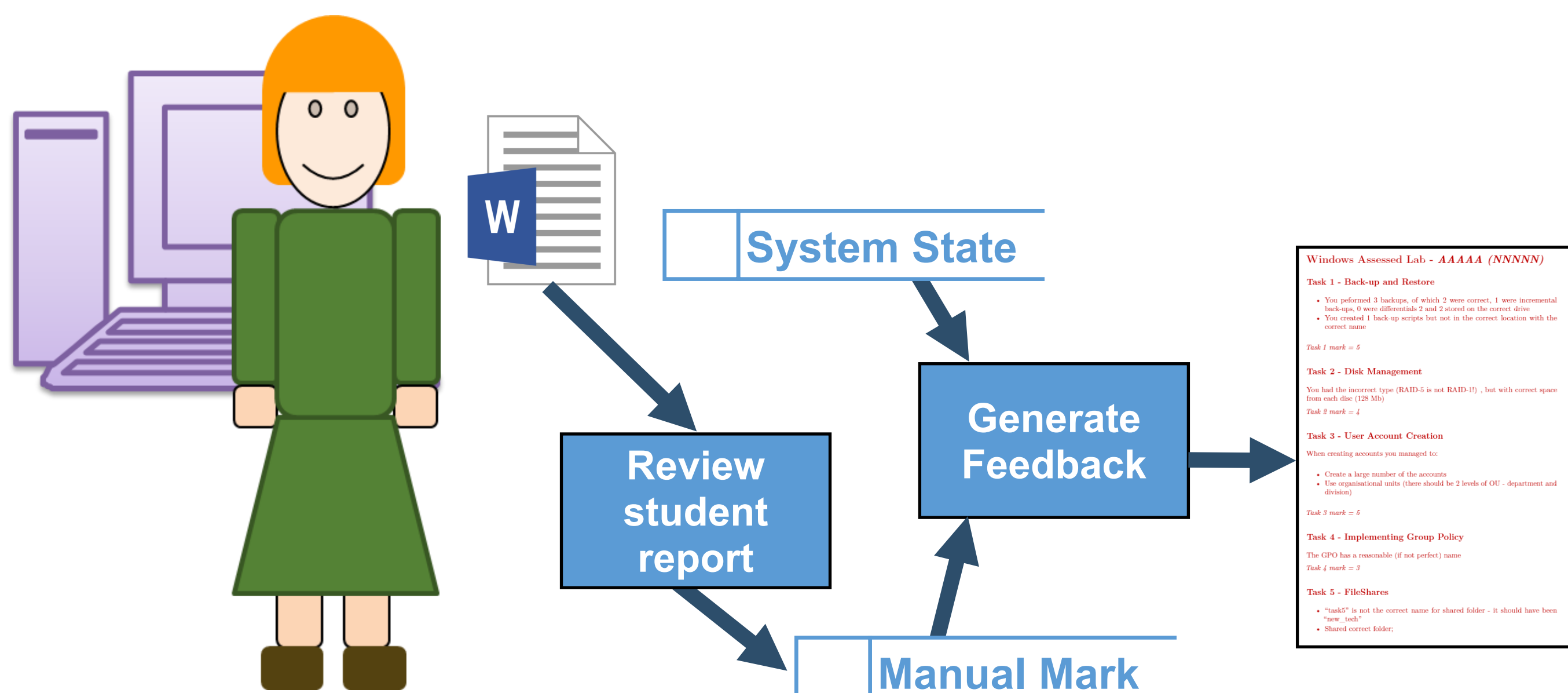


Figure 3: Assessed lab at end of teaching block

## Now

### Weekly labs (figure 2)

- Students do lab tasks as before
- In lab book, record notes they feel are relevant (figure 2)

### Assessment (figure 3)

- At end of 8 week block, there is an assessed lab:
  - Set of real world tasks
  - Students record what they do in a report
  - When finished, student runs a script that captures state of server
  - Student uploads report and system state to VLE

### Marking (figure 3)

Set of scripts analyse system state and generate:

- feedback report for student
- explanation report for staff
- marks for tasks and final total

## Problems

- In assessed lab students still rely on memory
- Writing marking scripts takes time
- Simple student slips make marking harder
- Bugs in system state capture script
- Lower lab attendance