

Blackboard assessment for a laboratory practical: a case study

Eran Tauber, Dept. of Genetics

May 2009

University of Leicester

I want assessment to be

- Valid
- Objective
- Easy to mark
- Informative
- Contributing to learning

(not necessarily in order of importance...)

The traditional lab report

- The famous five (Introduction, Methods, Results, Discussion, References)
- Pros:
 - real world (publication) style
 - Developing writing skills
 - Open-ended
- Cons:
 - Discriminates against ESLs
 - Not entirely valid
 - Not reliable (dishonesty)
 - Less control on what is assessed
 - Marking is difficult (and lengthy)

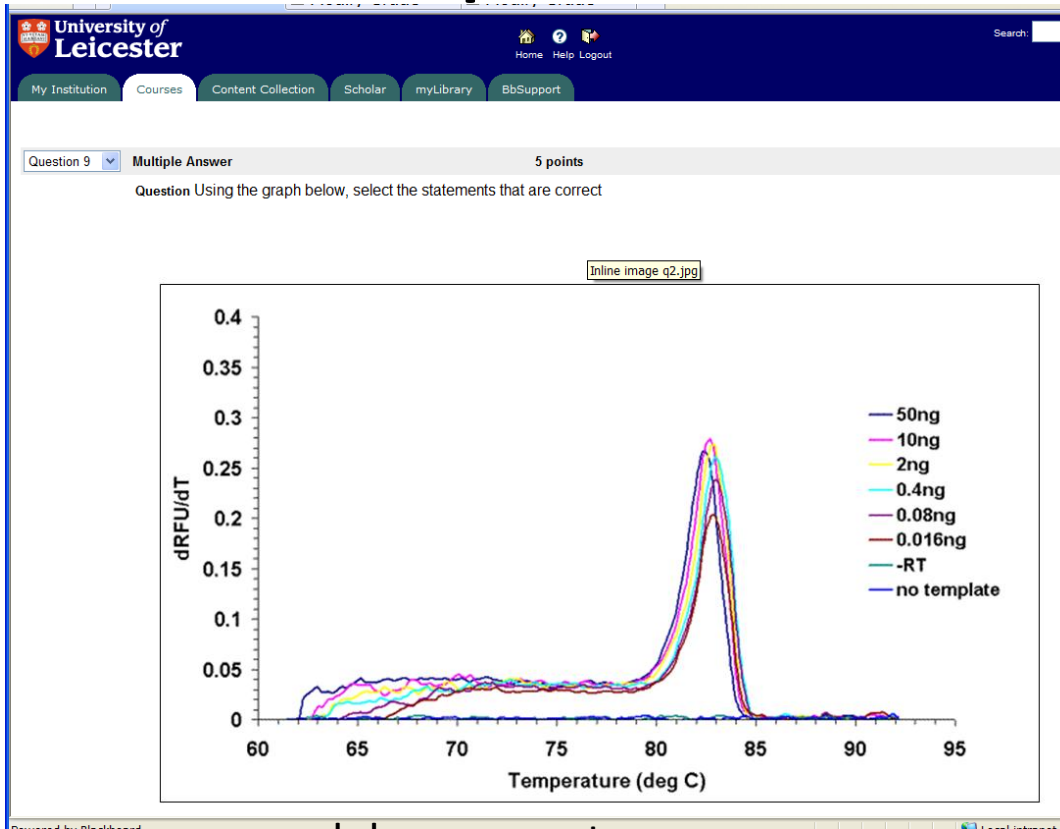
Blackboard quiz

- Prons
 - Objective
 - Informative
 - Reliable
 - Easy to mark
 - Assessment adjacent to learning
 - Allows resits
- Cons
 - No writing experience
 - Poor feedback
 - Blackboard availability

Quiz structure

- 14 questions of which:
- 11 MCQ (5 marks each)
- 3 open (pre-prepared) (15 marks each)
- 120 min.
- MCQs have 8 possible answers
- Difficulty is non-linear
- Pass mark: 50

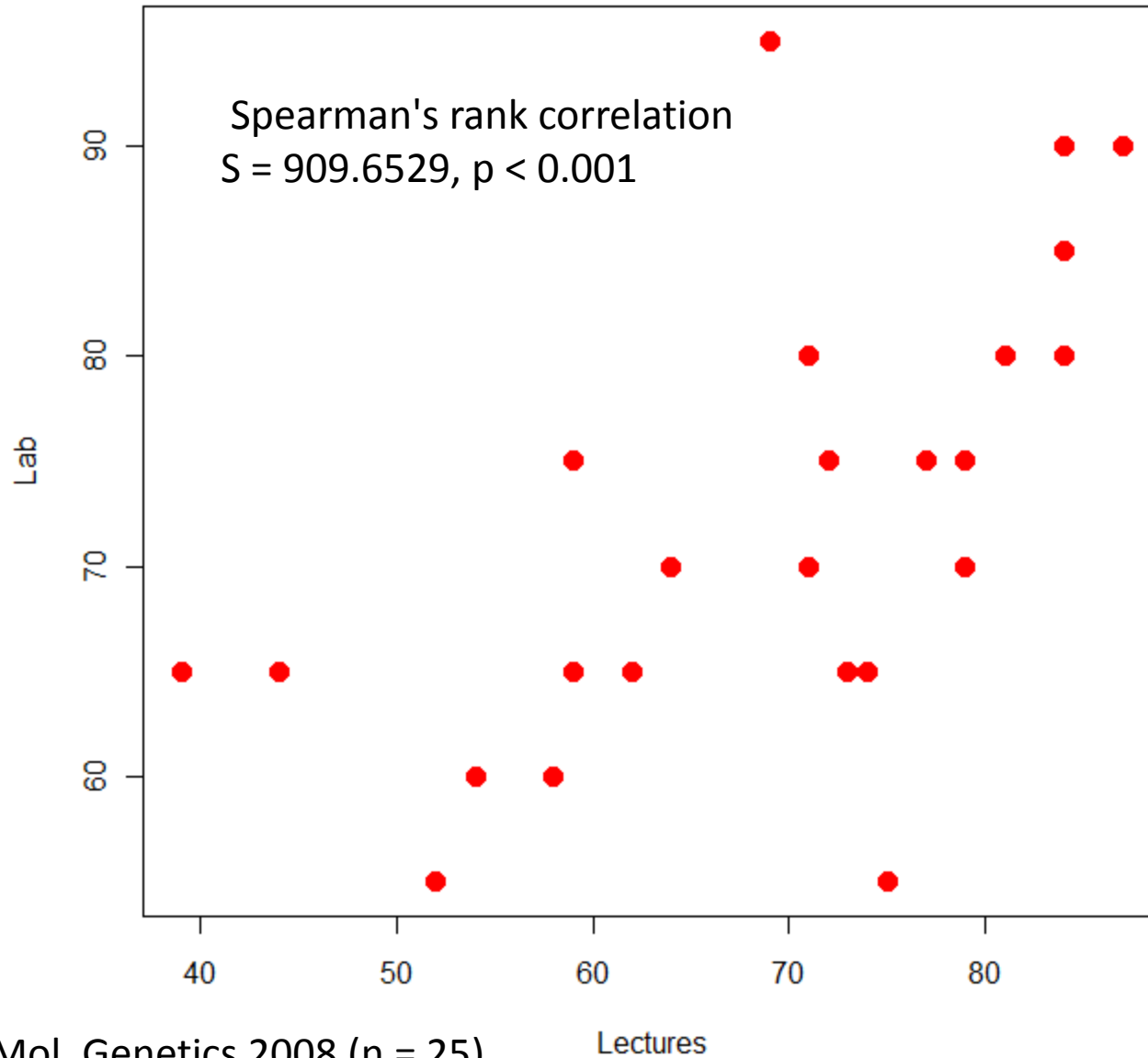
An example



- a. The figure above represents the melting curve, which shows the *level* of fluorescence over a range of temperatures.
- b. The figure above represents the melting curve, which shows the *rate of change* of fluorescence over a range of temperatures.
- c. If the melting curve does not show a clear peak, this means that the DNA does not have a T_m .
- d. Additional peaks in the melting curve indicate DNA contamination and/or the presence of primer dimers.

- e. a and d are correct.
- f. a and c are correct.
- g. b and c are correct.
- h. b and d are correct.
- i. a, b and d are correct.
- j. b, c and d are correct

Performance on Lab quiz correlates with other assessments (Lectures)



MSc Mol. Genetics 2008 (n = 25)