Getting students to engage with readings

Dr Dan Weijers
Philosophy Programme
University of Waikato
The problem:

Students are bored and readings are boring

• We want students to learn how to comprehend and critique complex arguments that tend to be in readings

• Students are disengaged generally, so how can we get them engaged with possibly the least engaging aspect of university study?!
Exacerbating the problem:

Students rarely have to read long and complex texts

- Students can Google simple answers to most questions
- Increasingly, information is delivered in standalone sentences
- Even brief news articles are summarized
Exacerbating the problem:

Students rarely suffer consequences for not doing their readings

- Students can read summarised work instead
  - Online (blogs, Wikipedia, spark notes, etc.)
  - Lecture notes

- Many readings are not directly linked to assessment

- All of the important parts of readings are covered in lectures and lecture notes
Exacerbating the problem:

**Distractions**

**Internet/games to students:**
- Look at me

**Part-/full-time job to students:**
- You HAVE to come in today

**Family to students:**
- We need you to...

**Result:**
- 😞 Studying while doing other things
- 😞 Studying after other things
- 😞 Not studying because of doing other things
- 😞 Not being able to focus on one thing for more than 10 minutes
Context

• Difficult content: Philosophy of science/science and human values
• 2nd year in-person course
Learning outcomes

• Comprehend and critique complex arguments

• Independently!

• Means they have to be able to extract complex arguments from the readings!
Course design

• Scaffolded learning
• Early and regular assessment
• Include low-stakes assessment
• Learn by doing
• Flipped approach
• Group and individual work
• Blended (in-person/online)
• Assessment fully linked to learning outcomes
Teaching

• Expectations are made crystal clear
• Expectations are justified in terms of learning outcomes

• Create multiple active learning moments

• Failure and feeling like you don’t know things are normal parts of learning
• Encourage self-reflection on learning
<table>
<thead>
<tr>
<th>Component Description</th>
<th>Percentage of overall mark</th>
<th>Details</th>
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<tbody>
<tr>
<td>In-class participation</td>
<td>9</td>
<td>23 lectures Eam up to ½ a mark per lecture</td>
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<td>In-class surprise quizzes</td>
<td>21</td>
<td>3 marks each Best 7 of 11 quizzes</td>
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<td>Analysis Paper</td>
<td>30</td>
<td>Independently summarise and critique the argument in a complex paper</td>
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- Explaining how each relate to learning outcomes
- Pointing out the importance of doing the reading effectively
Scaffolding

• How to stay awake while reading

• How to extract information from a complex text and make notes

• Being encouraging and supportive

Success is close at hand

• Organize a regular time to do the reading and stick to it as best you can
• Tell me if you are struggling
• Understand that your brain is like a muscle

How to read critically

• Make up your own mind before you read
• Momentarily take the opposite side to every point of view
• Make this face

How to take notes

• Think pair share
• What is the author arguing for?
• What are the main reasons the author uses to argue for that?
• Are any terms defined and frequently used within the reading? What are they and what does the author say they mean?
• Does the author use any key examples? What are they and what does the author use them to argue for?
Scaffolding etc.

• Work in teams during class to extract arguments from short complex passages

• Low stakes - First quiz is revealed to be a practice quiz (after the fact)

• Prompt feedback
  • Discuss answers directly afterwards
  • Put up grades within 48 hours

(Practice) Quiz 1

2. Describe Newton’s method for discovering gravity (according to the textbook). (1 mark)
   • Observations deduced from phenomena (using geometry style: deduce theorems from axioms)
   • Observations are then generalized (universalized) by induction/deduction from an assumption/axiom about God

3. Why does Newton not like the ‘come up with a hypotheses and then test it’ method of science? (1 mark)
Quiz benefits

• Timing (any time, including multiple in one class, but usually at very start)
  • Students come on time (9am lecture)
  • Student don’t leave early
  • Student pay attention while in class
  • Students read and take notes before class (students can use their notes during quiz)

• Best 7 of 11
  • Don’t have to worry about sick notes etc.
  • Allows students to learn from mistakes in a low-stakes way
  • Students and I get regular feedback on their learning
Building skills and seeing their value

- Every reading and set of notes students do, helps develop their skills and enables them to get a better grade in **all of the assessment**
- I explain along the way how these skills can be used in the real world
- Sometimes swap exam for portfolio

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| In-class participation      | 9                           | 23 lectures
|                             |                             | Earn up to $\frac{1}{2}$ a mark per lecture              |
| In-class surprise quizzes    | 21                          | 3 marks each
|                             |                             | Best 7 of 11 quizzes                                     |
| Analysis Paper              | 30                          | Independently summarise and critique the argument in a complex paper |
| Exam                        | 40                          | Write 2 essays from 6(/9) possible prompts               |
Student experience

• 50% of the responses to “What aspects of the paper helped you to learn?” mentioned the quizzes, including:
  • “The way that the paper was set out with most of our marks based on regular readings and participation and in-class quizzes helped me to keep up with the workload and attend class often.”
  • “The structure of the paper allowed me to learn most effectively. E.g. readings before class, followed by (potential) quiz, learning about the reading in class-having to read and make notes in case there was a quiz and then having the content explained and examined in class helped me learn the content quite easily.”

Response rate: 75% (18/24)

94%

“Strongly agree” responses to “Overall, this paper provided me with a good learning experience”
Next steps

• Fully integrate (free/cheap) student response systems to spread the assessment throughout each class and further develop engagement

• Add more funny pictures to my slides