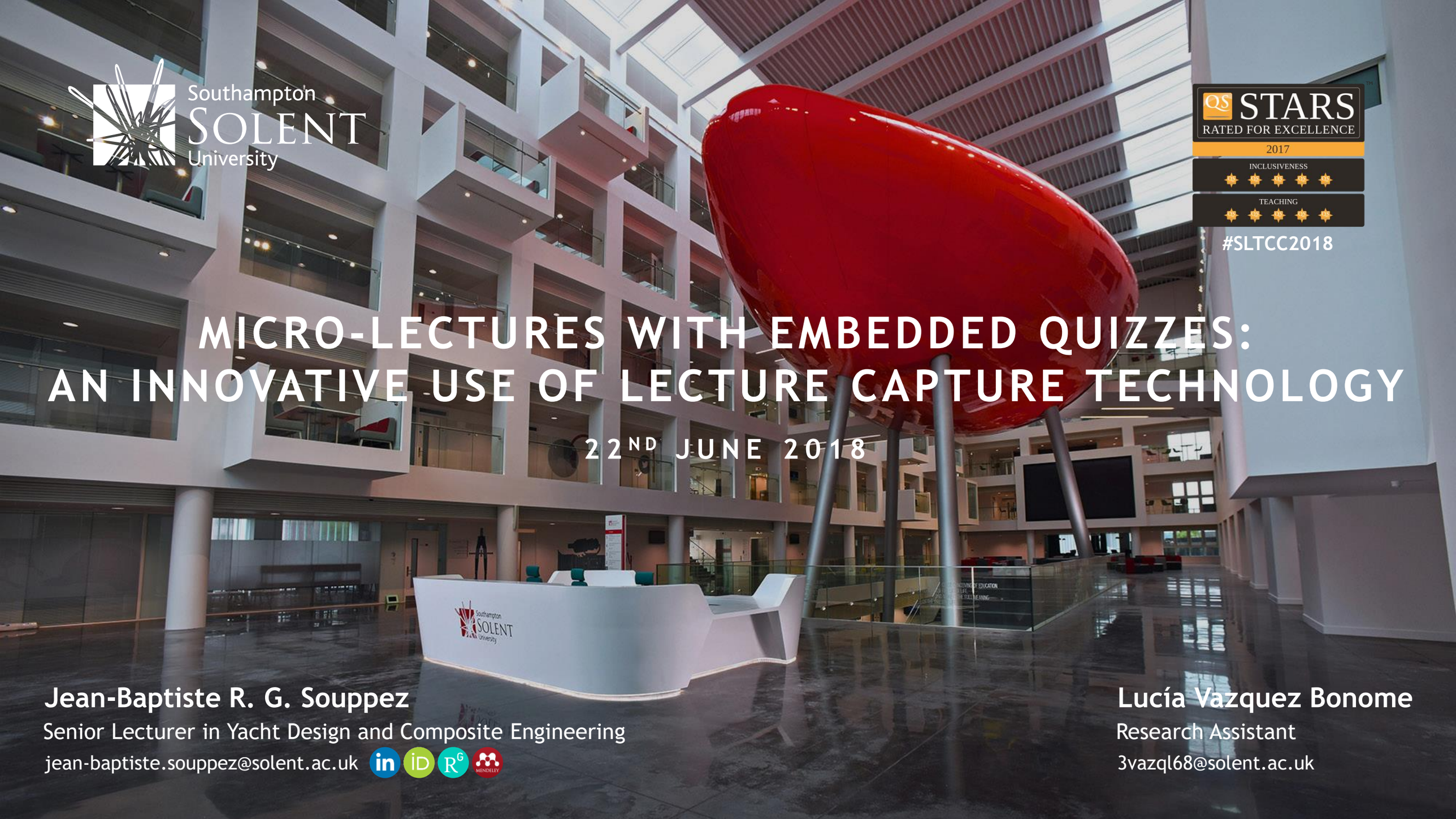
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MICRO-LECTURES WITH EMBEDDED QUIZZES:
AN INNOVATIVE USE OF LECTURE CAPTURE TECHNOLOGY
22ND JUNE 2018
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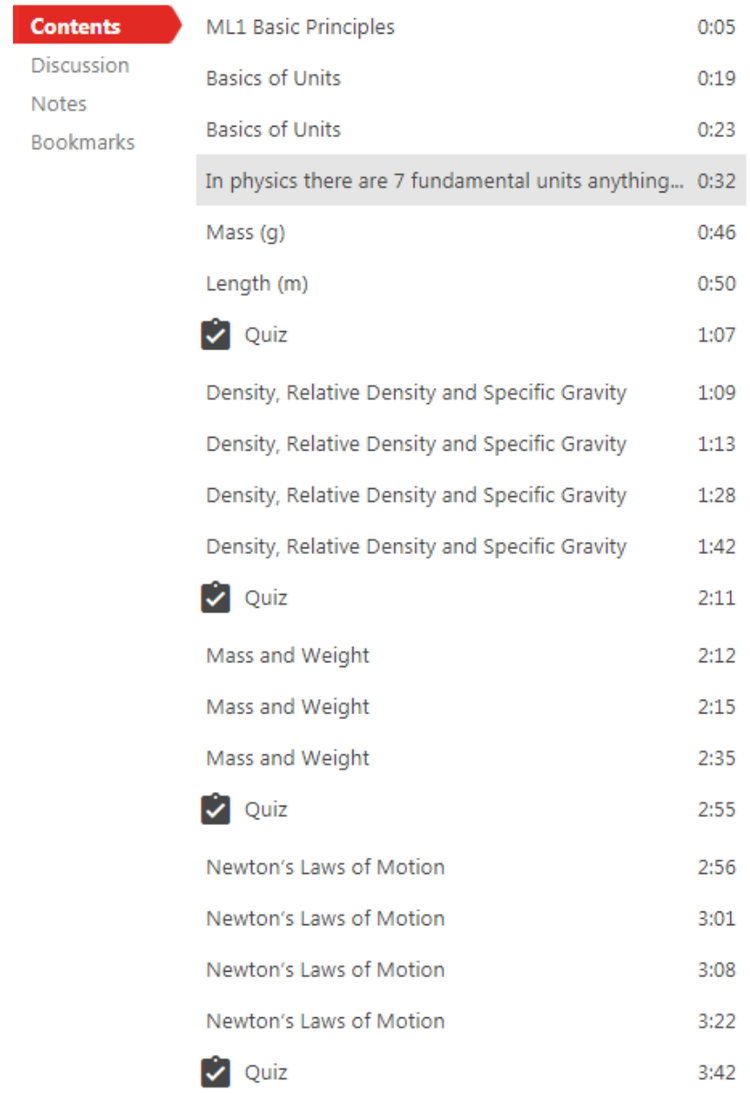
- ***Acknowledgement:*** *The support and SEED funding awarded by the Solent Learning and Teaching Institute (SLTI) is greatly appreciated, and made this investigation possible.*

INTRODUCTION

- Promoting student engagement through technology enhanced learning
- Micro-Lectures
  - Short, sharp vodcasts covering the essential concepts
- Embedded Quizzes
  - Promote student engagement and a more active learning experience
  - But also provide feedback on student's understanding of particular concepts
- Time-Line:
  - Spring 2017: Pilot study
  - Automn 2017: Implementation on a 2 weeks short course
  - 2017/2018 Academic Year: Used weekly on a level 4 unit

MICRO LECTURE WITH EMBEDDED QUIZZES

- Micro-Lecture Structure:
  - 3 to 5 minutes long
  - Roughly one quiz per minute to promote active engagement
  - **The rest of the video cannot be watched without answering the quiz!**
- Results can be monitored
  - Allows to reflect on previous class, and influence the forth coming one



MICRO LECTURE WITH EMBEDDED QUIZZES; EXAMPLE

MICRO LECTURE WITH EMBEDDED QUIZZES; EXAMPLE

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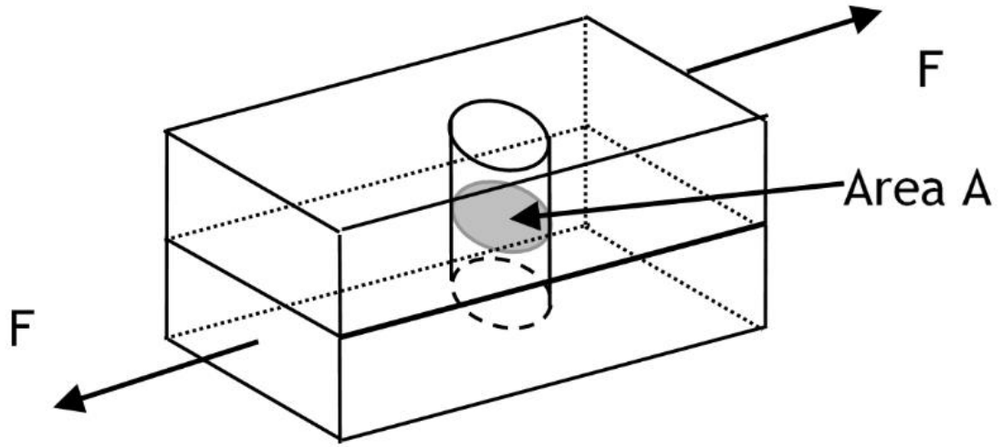
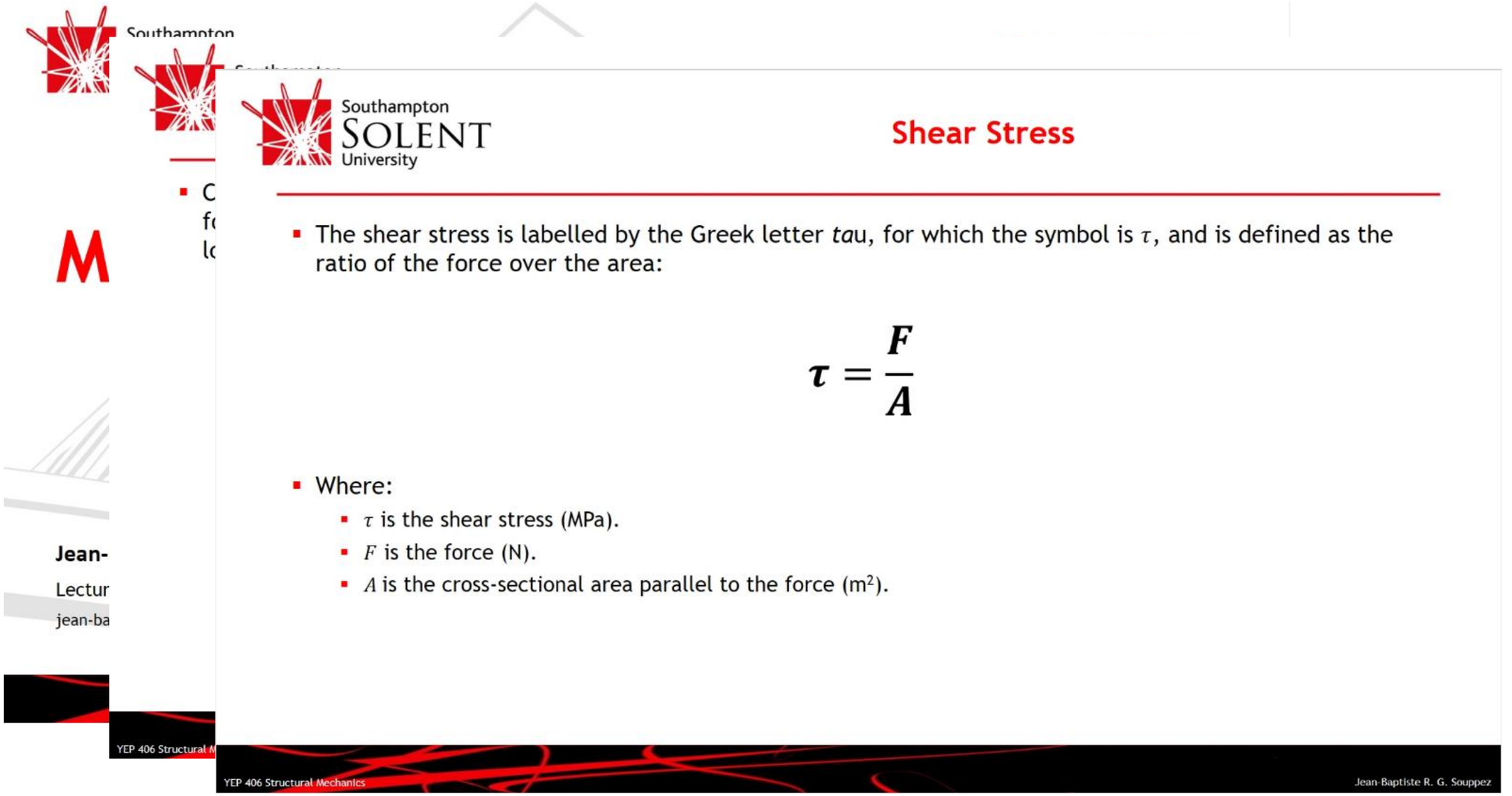
Direct Stresses and Shear Stresses

- Consider the diagram below where a pin is holding two blocks together, each subject to a shearing force. The pin will need to resist the shear force with the grey area, parallel to the direction of the loading .



MICRO LECTURE WITH EMBEDDED QUIZZES; EXAMPLE



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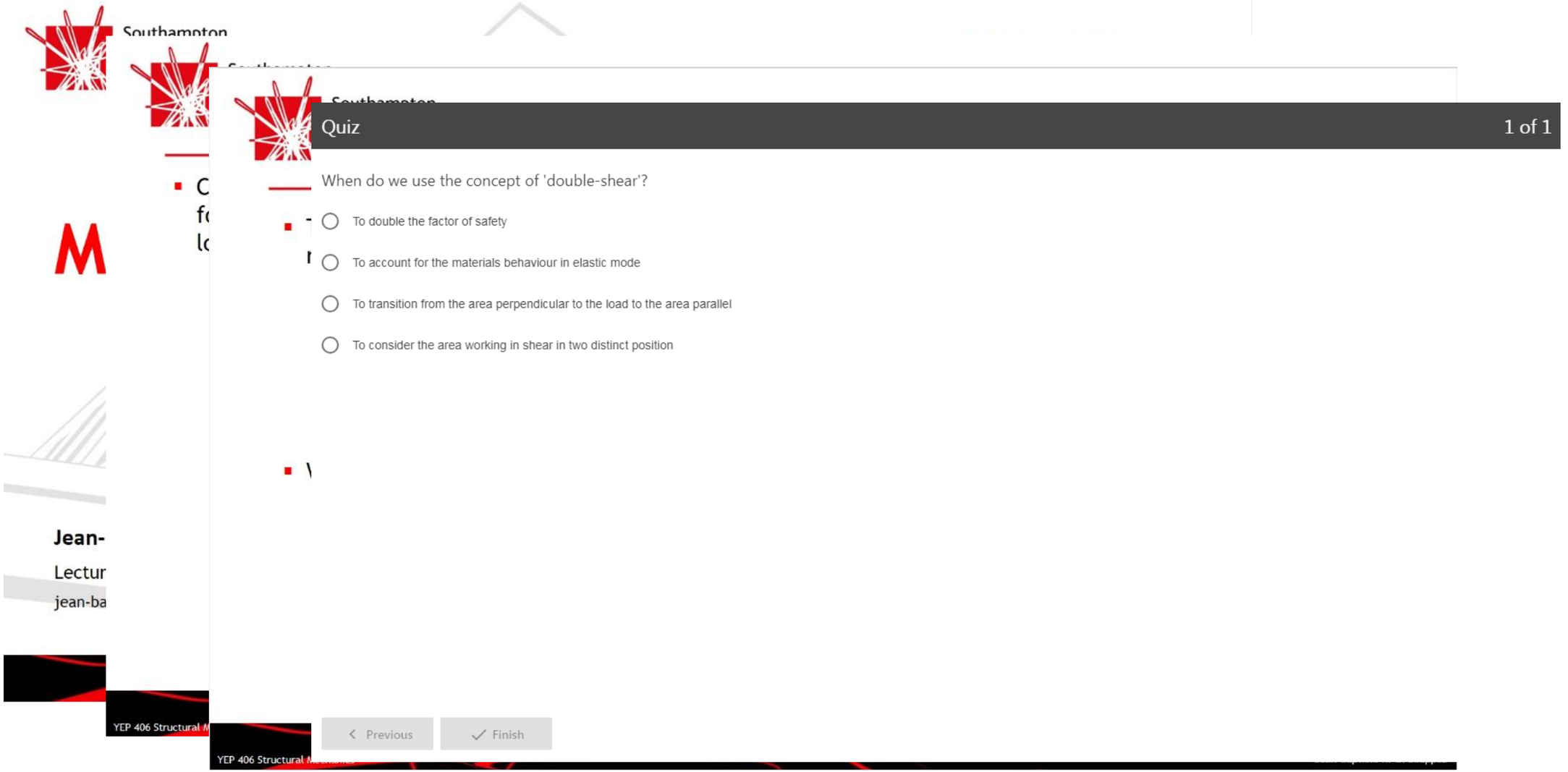
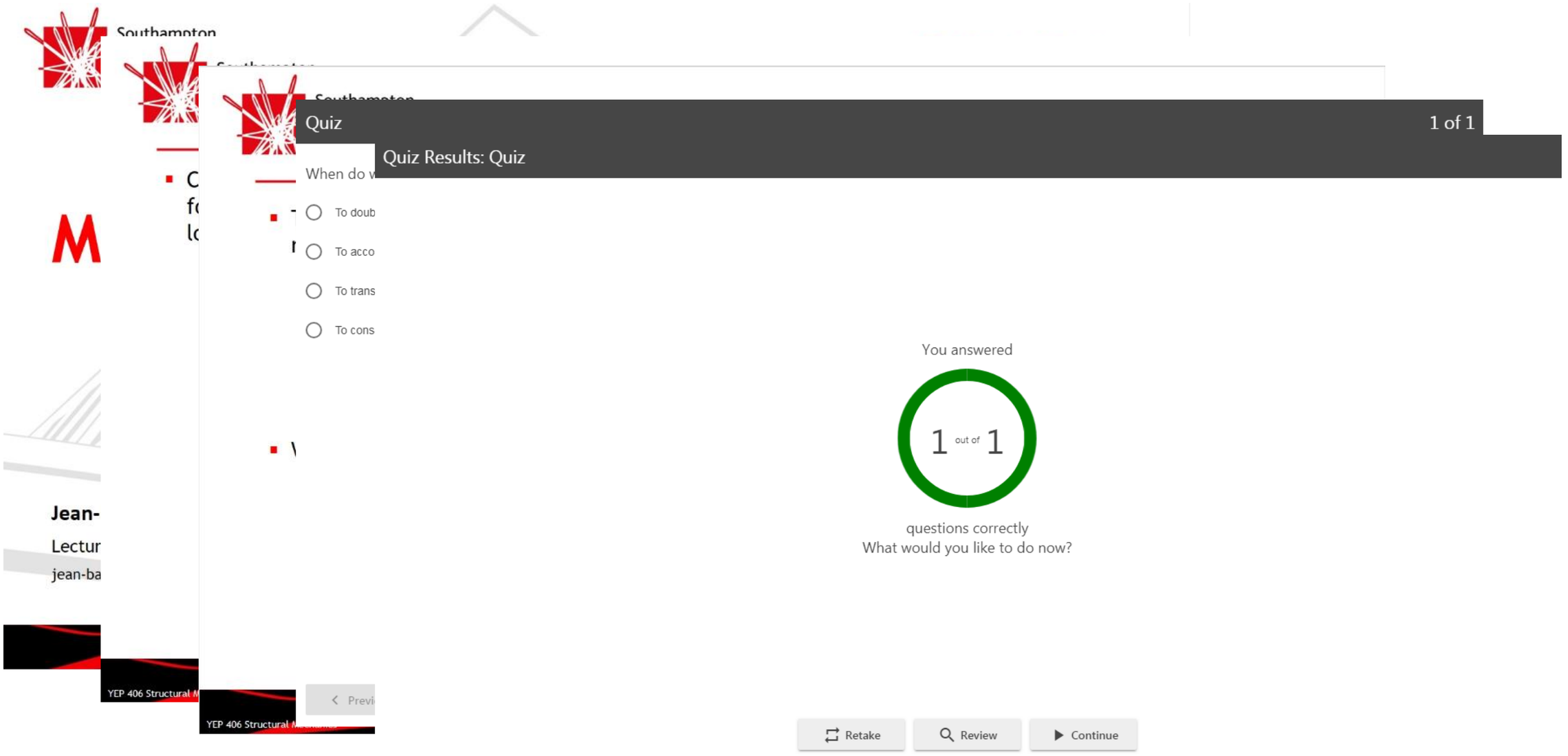


MICRO LECTURE WITH EMBEDDED QUIZZES; EXAMPLE



EXPERIENCE WORKING AS A RESEARCH ASSISTANT

- I found this job through Solent Graduate Jobs: https://graduatejobs.solent.ac.uk
- It is a part-time job that will allow me to earn some extra money
- I carried out a research under my supervisor's guidance
- I learnt some valuable skills:
  - Analytical Skills
  - Administrative Skills
  - Computer Skills
  - Research / Project Skills
- All of them were really helpful for my Bachelor's and gave me extra points when I applied to job positions
- In the future I could find a job as a Research Assistant at a media company

FOCUS GROUPS AND QUESTIONNAIRES

- We chose to do this using an informal setting
- The focus groups had two parts:
  - A structured questionnaire
  - An open debate where I could take some notes and make observations
- Something that motivated students to participate in these focus groups was the possibility of earning a prize and get some free pizza
- I found that the students were more keen to discuss their thoughts and opinions in an informal chat, rather than writing everything on paper
- It was also a good opportunity for them to give some ideas and suggestions to improve the overall course
- Additionally, the students became aware of the role of a research assistant and some of them showed interest to work next year as researchers

FINDINGS

- **Professional**
  - The students liked the new method of learning through Micro-Lectures
  - They gave good feedback on possible ways of improving the lectures
  - They were keen to explore new techniques and are eager to work with educational technology
  - They liked the research groups and enjoyed sharing their opinions with me

- **Research**
  - This should be an ongoing research, since the students benefited from it and it's a good way to promote the University resources
  - The structure should be the same for the following years

- **Personal**
  - I really enjoyed taking part of this project
  - It was a valuable experience for my future
  - I also learnt new things and skills

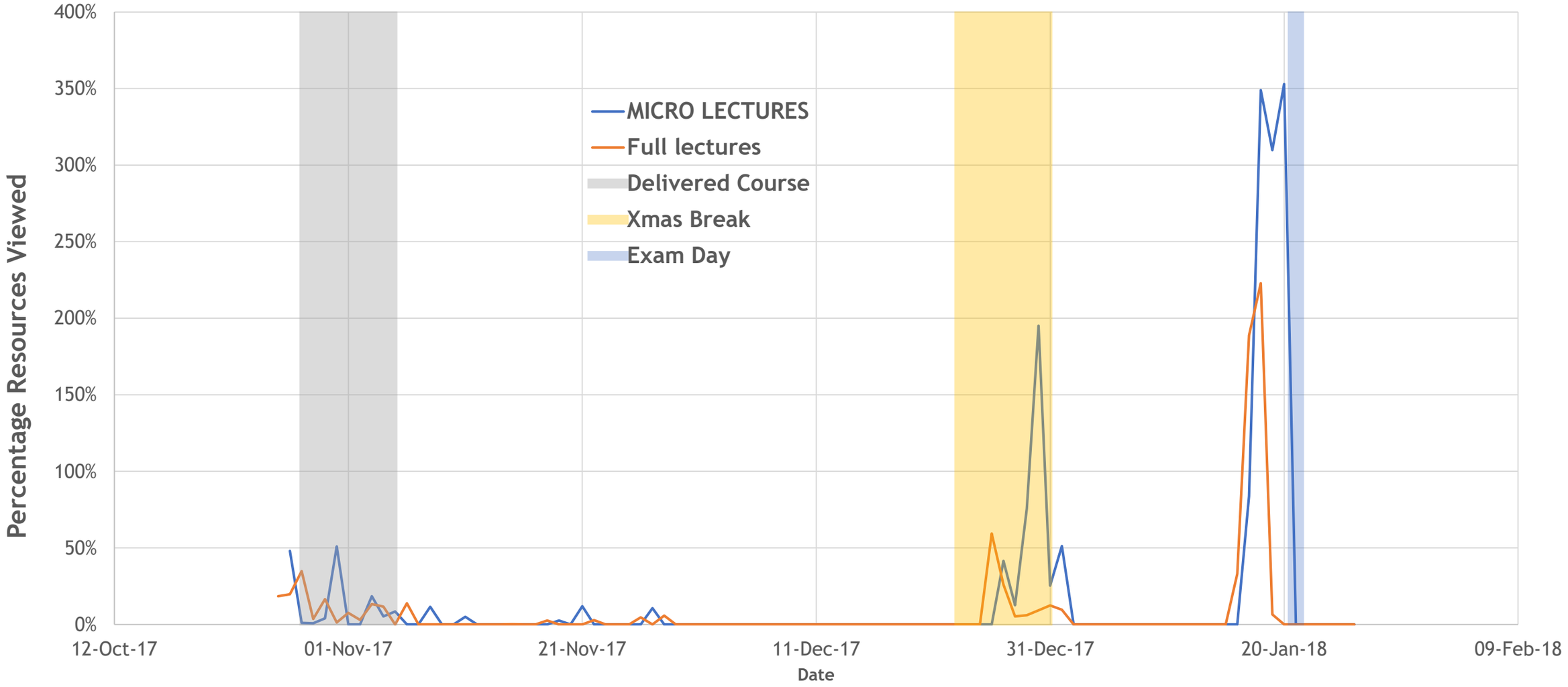
FINDINGS: STUDENT PERCEPTION

- One of the main findings of the focus group was the student perception of how they would use the resources.

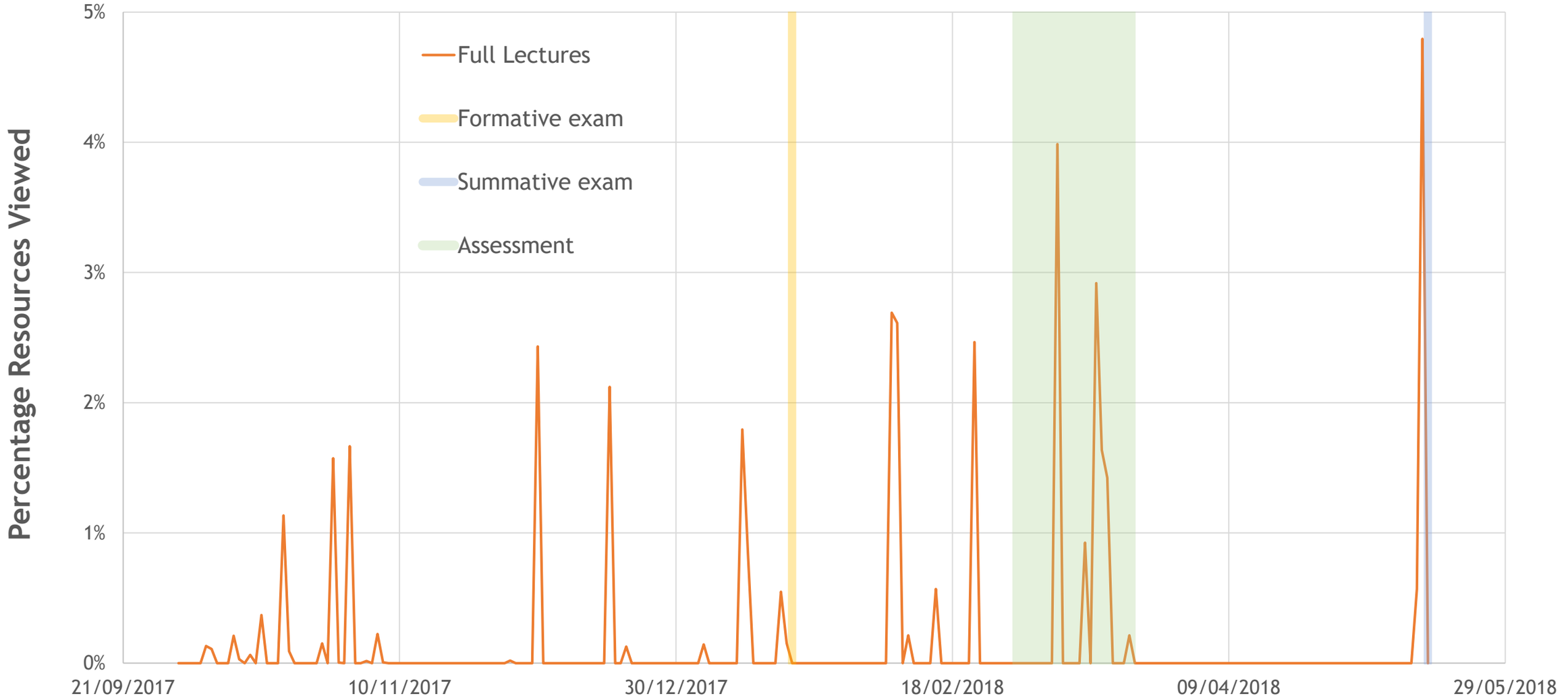
- The majority of the students stated that:
  - They do not watch full lecture capture if they attended the lecture
  - They do watch the micro-lecture even if they attended the lectures
  - Their use of lecture capture is mostly for revision purposes

- This can then be contrasted with how they actually used it!

VIEWING PATTERN: SHORT COURSE (LEVEL 7)



VIEWING PATTERN: YEAR-LONG COURSE (LEVEL 4)



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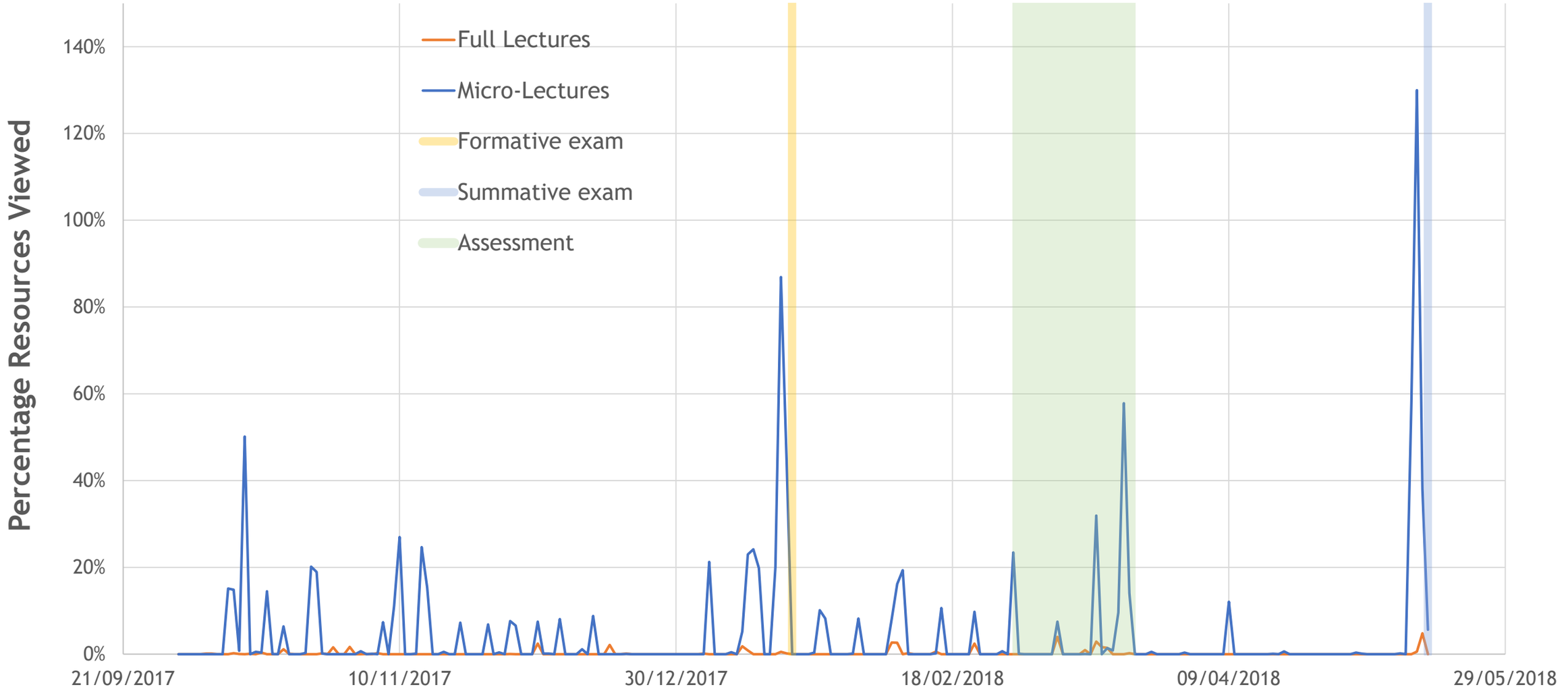

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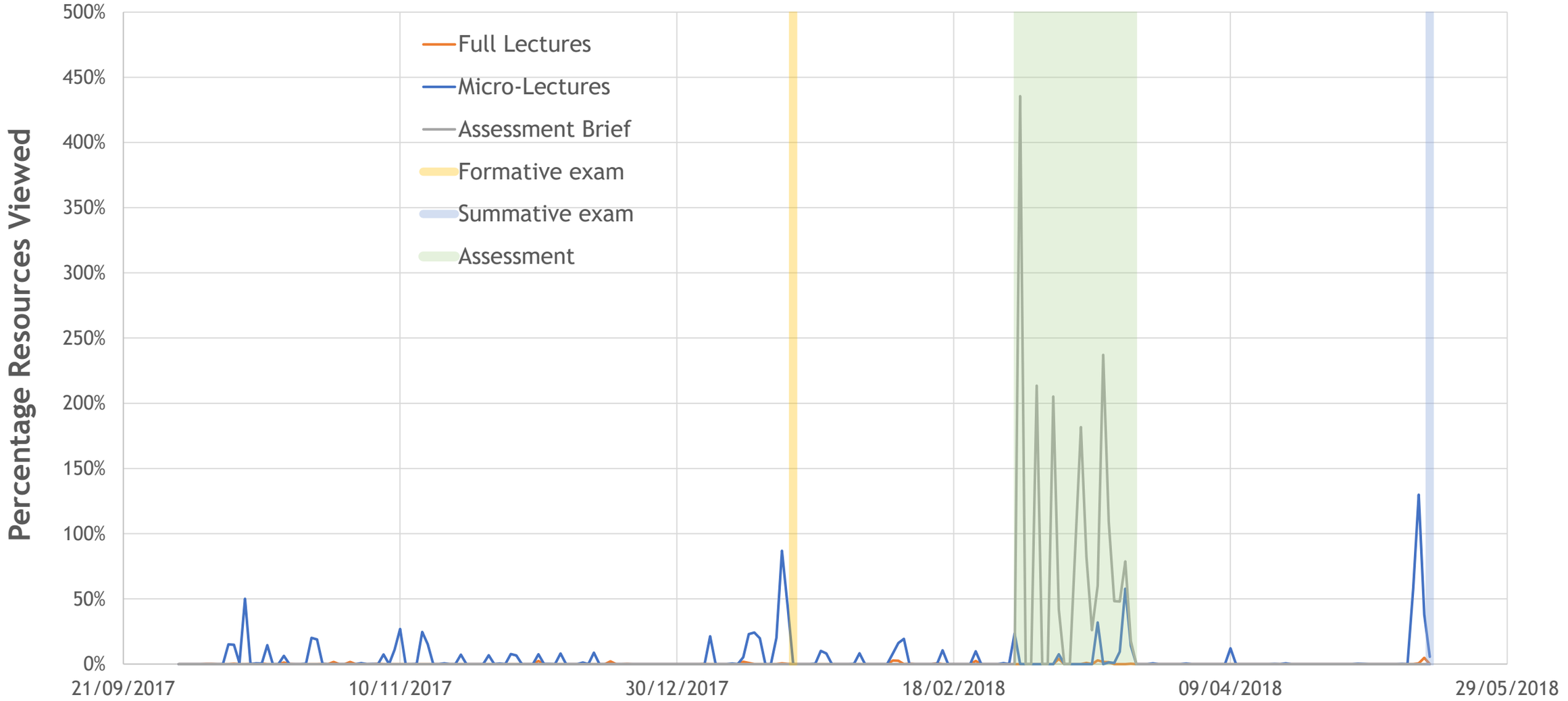

CONCLUSIONS

- Year-long implementation of Micro-Lectures with Embedded Quizzes
- Use of questionnaire and focus groups to assess student perception and refine the Micro-Lectures
  - Very high student satisfaction
- Viewing patterns revealed:
  - The critical under-use of full lecture capture (less than 5% viewed)
  - The much better alternative that micro-lecture represent
  - The greater use of micro-lectures to support exam revision and assessment

- **What's next?**
  - **Get other academics involved (that's you… yes, you!)**
  - **Co-create the micro-lectures with students for a faster and sustainable development**

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THANK YOU!

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