

University of Strathclyde **Science**

A Snapshot of UK **Pre-Lab Practices**







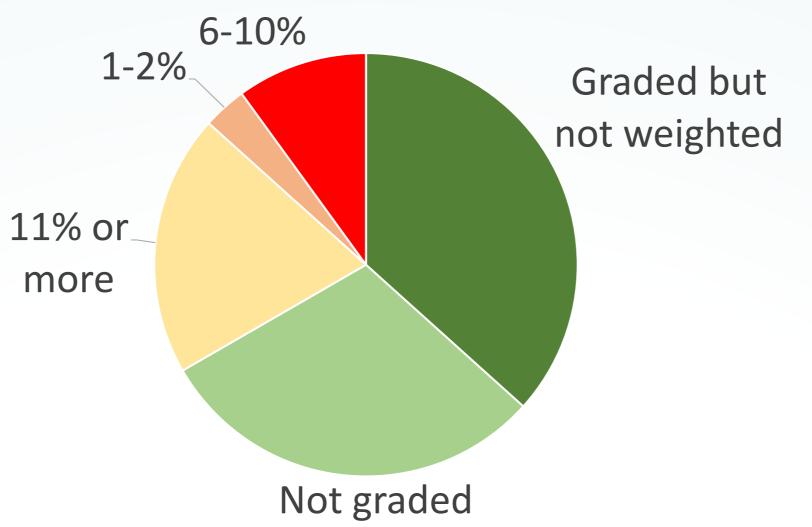
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How are pre-labs incentivised?

30 chemistry teaching labs surveyed in July 2024. A typical lab hosted **120** students, with half being multidisciplinary foundation or year 1 courses.

64% ran half-day labs, the rest full-day.

Do pre-labs generate a grade, and is it weighted into the overall lab?



Virtually all pre-labs were assessed with instant formative feedback.

Engagement/attainment are often incentivised by gating access to the lab, usually on safety grounds:

Most labs ran on a rota, with dedicated or floating GTAs and a specific pre-lab for each experiment.

Half of labs had a dedicated academic, and most had a dedicated technician. Contributes to overall pass/fail (20%)

Restricts access to the lab itself (57%)

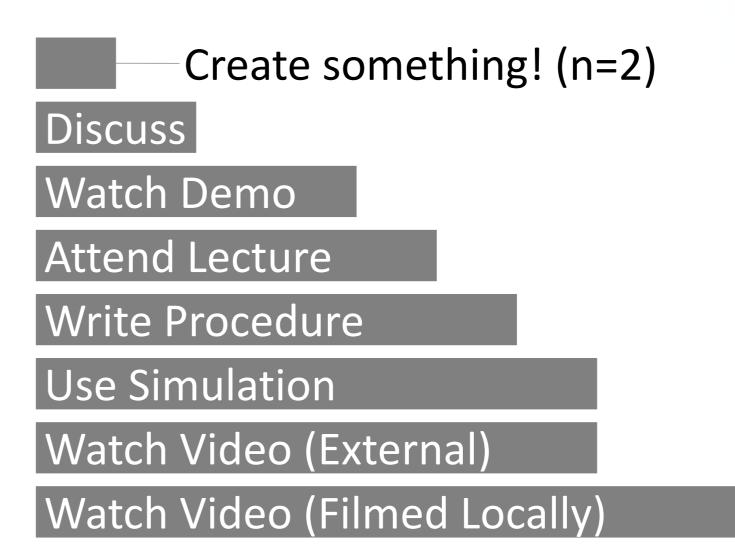
As a result, most pre-labs were very well utilised, with median 95% student uptake.

What's happening in pre-labs?

Typically, how many pre-labs cover the following types of information?

| | 0% | 20% | 40% | 60% | 80% | 100% |
|-------------|----|-----|-----|-----|-----|------|
| Procedural | | | | | | |
| Supportive | | | | | | |
| Theoretical | | | | | | |

What do students do in pre-labs?





All Most Some None

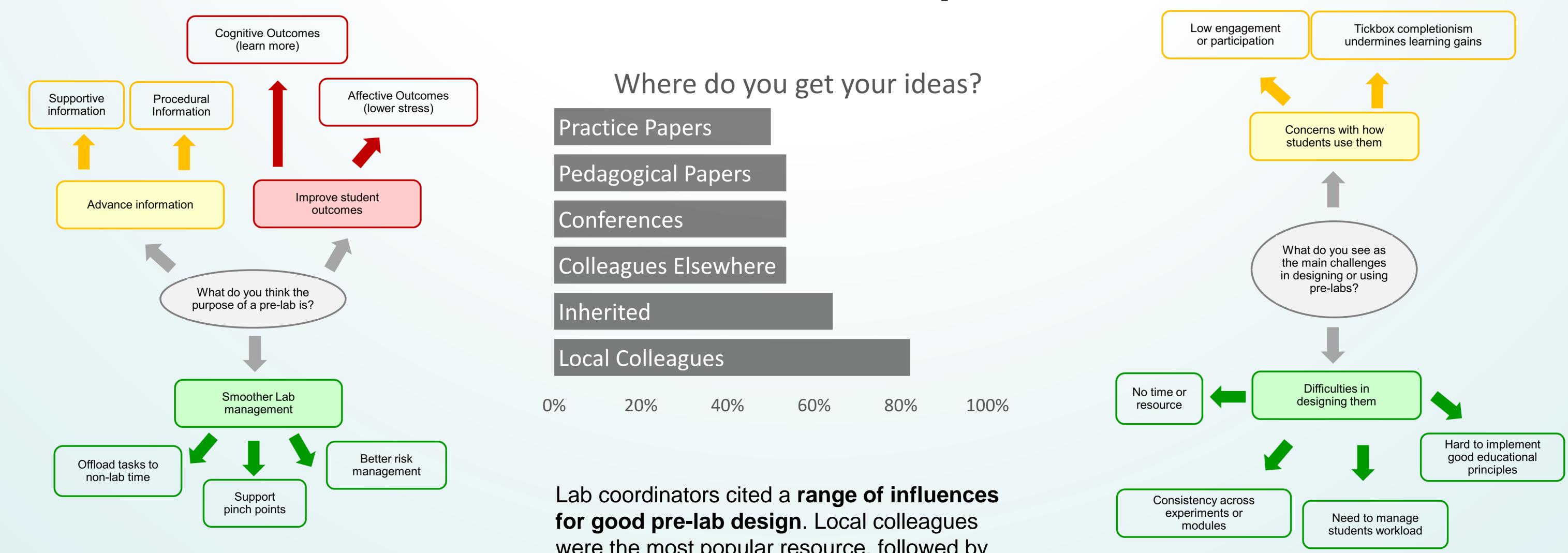
Types of information covered by pre-labs, with a **prevalence of** procedural over supportive information. Pure theory and safety also well represented.

Answer Assessed Questions Read The Manual

0% 20% 40% 60% 100% 80%

Methods used to run pre-labs, covering both **passive and** active learning activities. Common trifecta: watch video, read manual, answer questions.

Instructor beliefs and practices



Thematic Analysis of free text responses on the perceived purposes of pre-labs.

were the most popular resource, followed by previously-existing pre-labs.

Thematic Analysis of free-text responses on the perceived challenges in using pre-labs.

References and Acknowledgements

Agustian, H. Y. and Seery, M. K., (2017), Reasserting the role of pre-laboratory activities in chemistry education: a proposed framework for their design, Chem. Educ. Res. Pract., 18, 518. DOI:10.1039/C7RP00140A.