Preliminary findings informing a student-led project investigating engagement with large group teaching in Medicine and Life Sciences.

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1. Poster Summary

Background:
- Student **engagement in large-group teaching,** particularly using active learning approaches, is a **predictor of student success**[1] but requires course-specific context for embedding[2].
- Student-led Independent Research Projects (IRP) in medicine offer a unique opportunity to gain insight into **students' own perceptions** of factors driving engagement and emphasise student voice in teaching reform.

Aims and Objectives:
- Starting Autumn '24, **a student-led IRP will investigate engagement in large-group physiology-related teaching** across Life Sciences and Brighton and Sussex Medical School (BSMS).
- Student-led ethnography, surveys, interviews, and course analytics will provide qualitative and quantitative insight into student engagement with existing large-group teaching in (FHEQ levels 4-5).

Hypothesis:
- We expect overall **higher reported engagement** associated with active approaches in large group teaching.
- However, we anticipate differences in **motivation and preferred methods of engagement** between Life Sciences and Medicine, **informing subject-specific best practice for teaching reform** at our institutions.
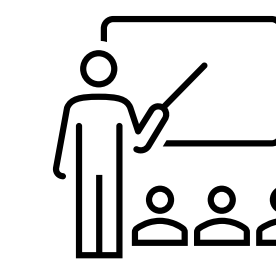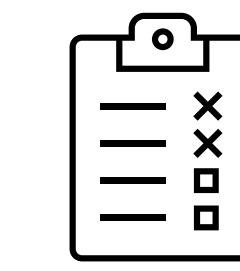
Preliminary Results:
- Early findings suggest that **coherent structure, clear slide layout, and embedded** questions drive engagement most in these cohorts. Intriguingly, there were very mixed preferences for managed spacing.
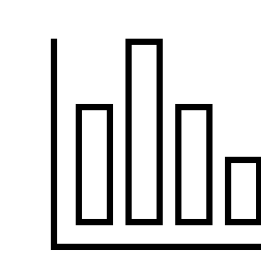
2. Preliminary data collection
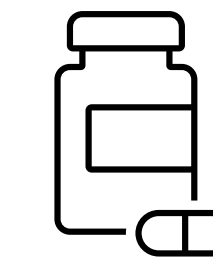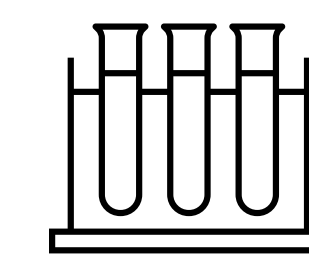
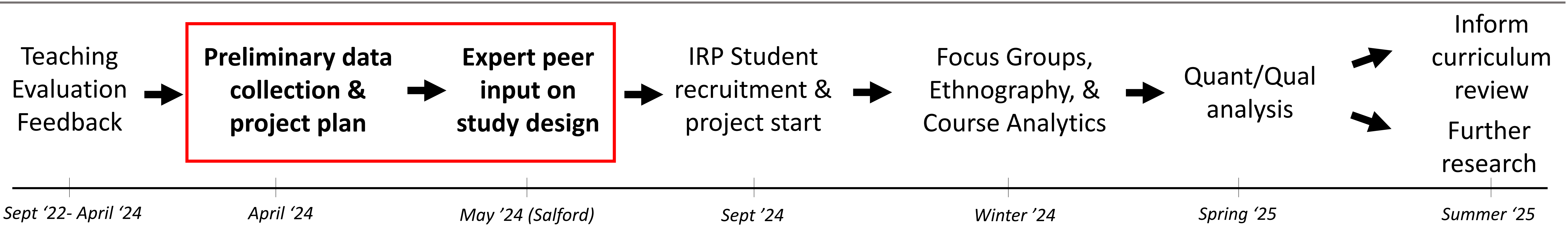1. **Life Sciences & Medicine student recruitment (FHEQ 4-5)**

2. **Preliminary data collection**
   - *Medical Teaching Evaluations*
   - *Student Course Engagement Questionnaire (SCEQ)*
   - *Active Learning questionnaire*

3. **Theme identification and project plan**

3. Study Timeline

Teaching Evaluation Feedback → **Preliminary data collection & project plan** → **Expert peer input on study design** → IRP Student recruitment & project start → Focus Groups, Ethnography, & Course Analytics → Quant/Qual analysis → Inform curriculum review / Further research

Sept '22- April '24 | *April '24* | *May '24 (Salford)* | *Sept '24* | *Winter '24* | *Spring '25* | *Summer '25*

4. Results: Engagement key themes

*What are the **most engaging aspects of teaching**?*

Key themes
- **Clear layout** to slides
- **Consistent structure** to the lectures
- Good to revise from
- **Embedded questions** throughout
- **Clear structure** that's easy to follow

Figure 1: Observations on factors influencing student engagement during teaching sessions, summarised from both formal and informal feedback over two years of teaching to 1st and 2nd year undergraduate medical students.
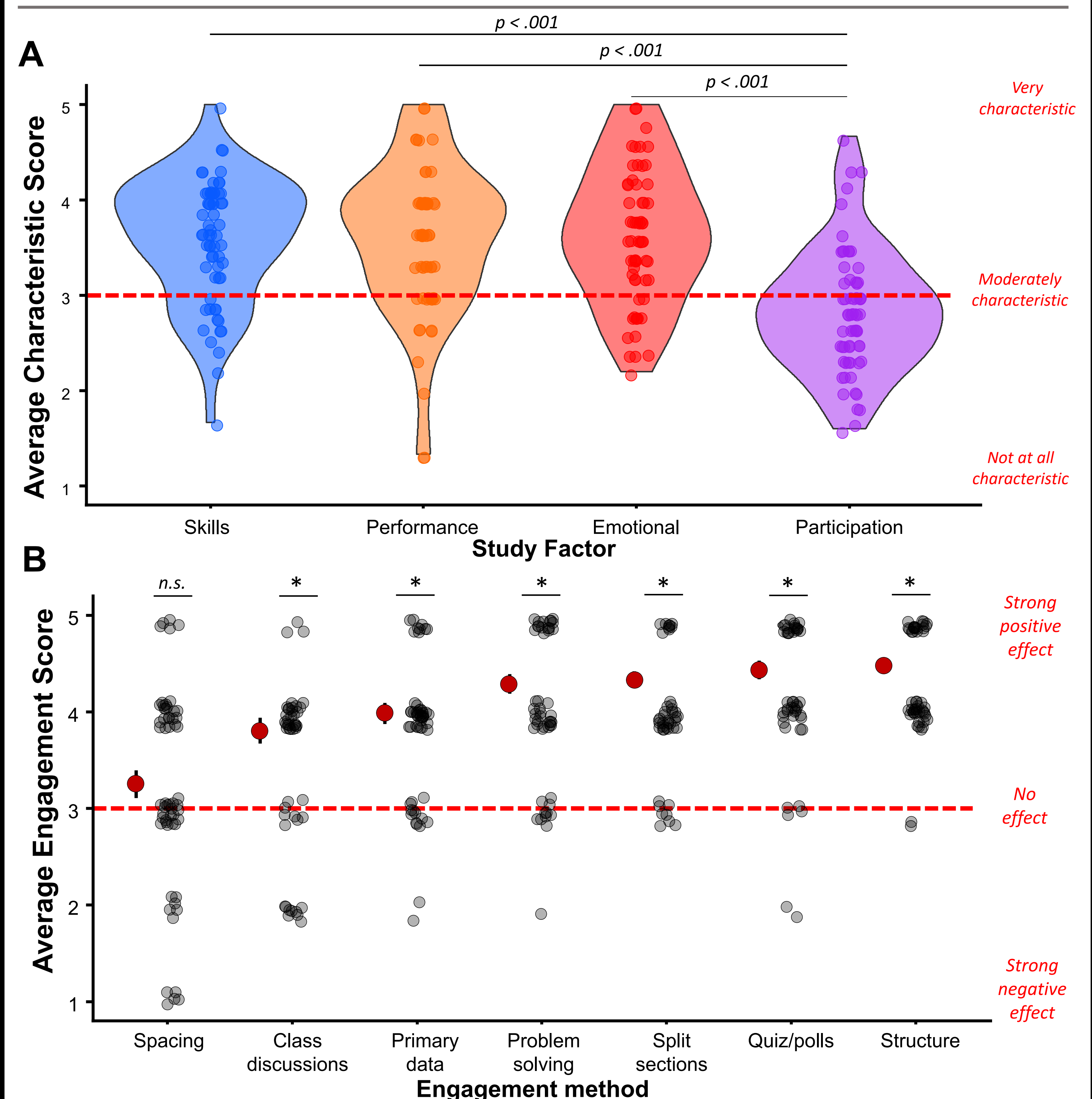
5. Results: Engagement surveys

Figure 2: Results from preliminary engagement surveys in Life Sciences Cohort (N = 63). A) Factorised SCEQ[3] self-report scores by facet. B) Self-report scores in active approaches in large group teaching. Errors bars represent mean +/- SEM.

6. Conclusion

- **Clear structure** and **slide design** were consistent key themes in promoting engagement in large-group teaching across Medicine and Life Sciences, with **structure ranked above all other active approaches**.
- Life Sciences students were **lowest for self-rated participation behaviours** but found active approaches themselves important for learning. These data provide a useful basis for an upcoming student-led IRP.

Acknowledgements

Reference List

(1) Freeman, S., Eddy, S. L., McDonough, M., Smith, M. K., Okoroafor, N., Jordt, H., & Wenderoth, M. P. (2014). https://doi.org/10.1073/PNAS.1319030111
(2) Hopper, M. K. (2016). https://doi.org/10.1152/advan.00129.2015
(3) Handelsman, M. M., Briggs, W. L., Sullivan, N., & Towler, A. (2005). https://doi.org/10.3200/JOER.98.3.184-192