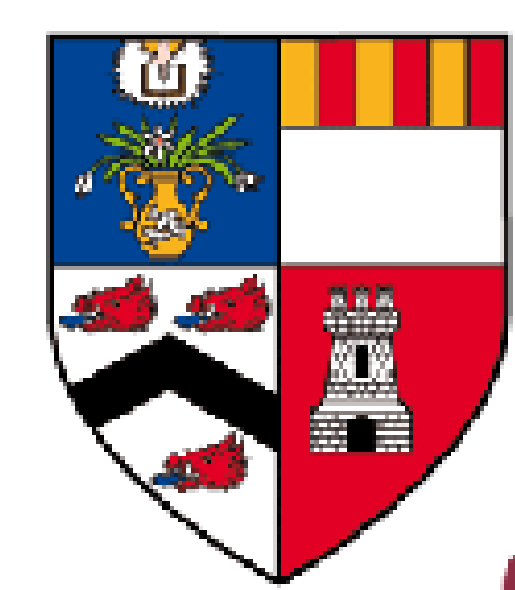


# Use of videos to develop practical skills in medical sciences students—addressing the needs of the visual learner

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## Introduction

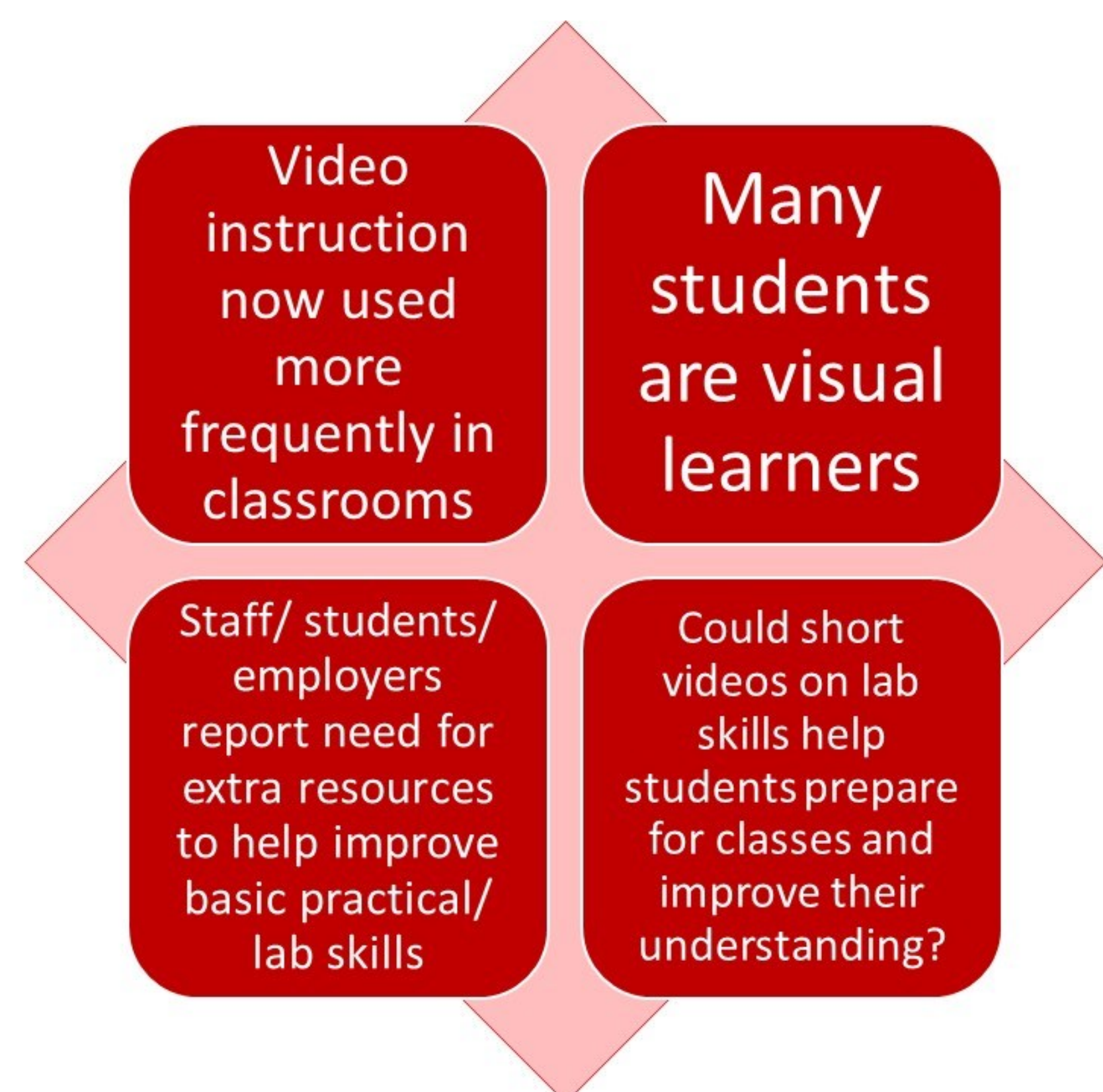


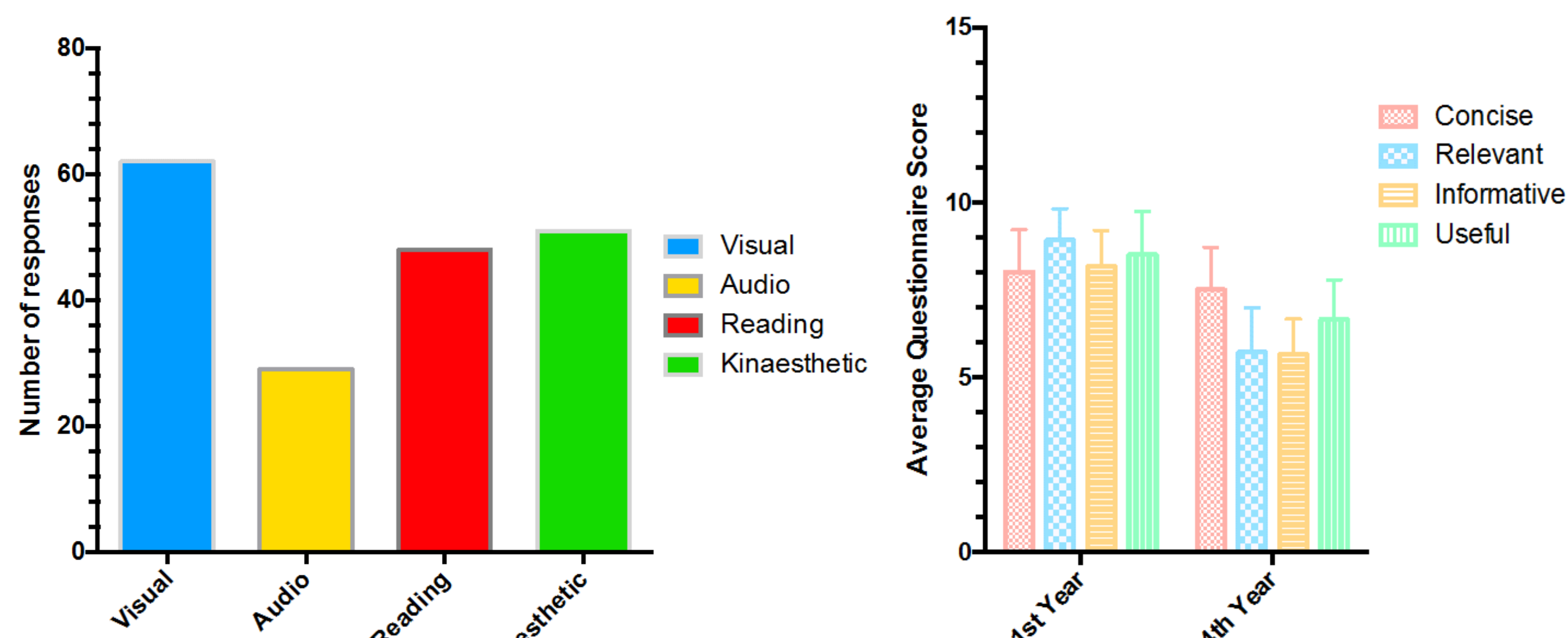
Figure 2. Example screenshots from the videos.

The topics chosen included: Using an automatic pipette, Making up a solution, Serial dilutions, and Using a spectrophotometer. These were chosen as preliminary data indicated they were all things students might benefit from learning more about and they could be useful for many students across the University.

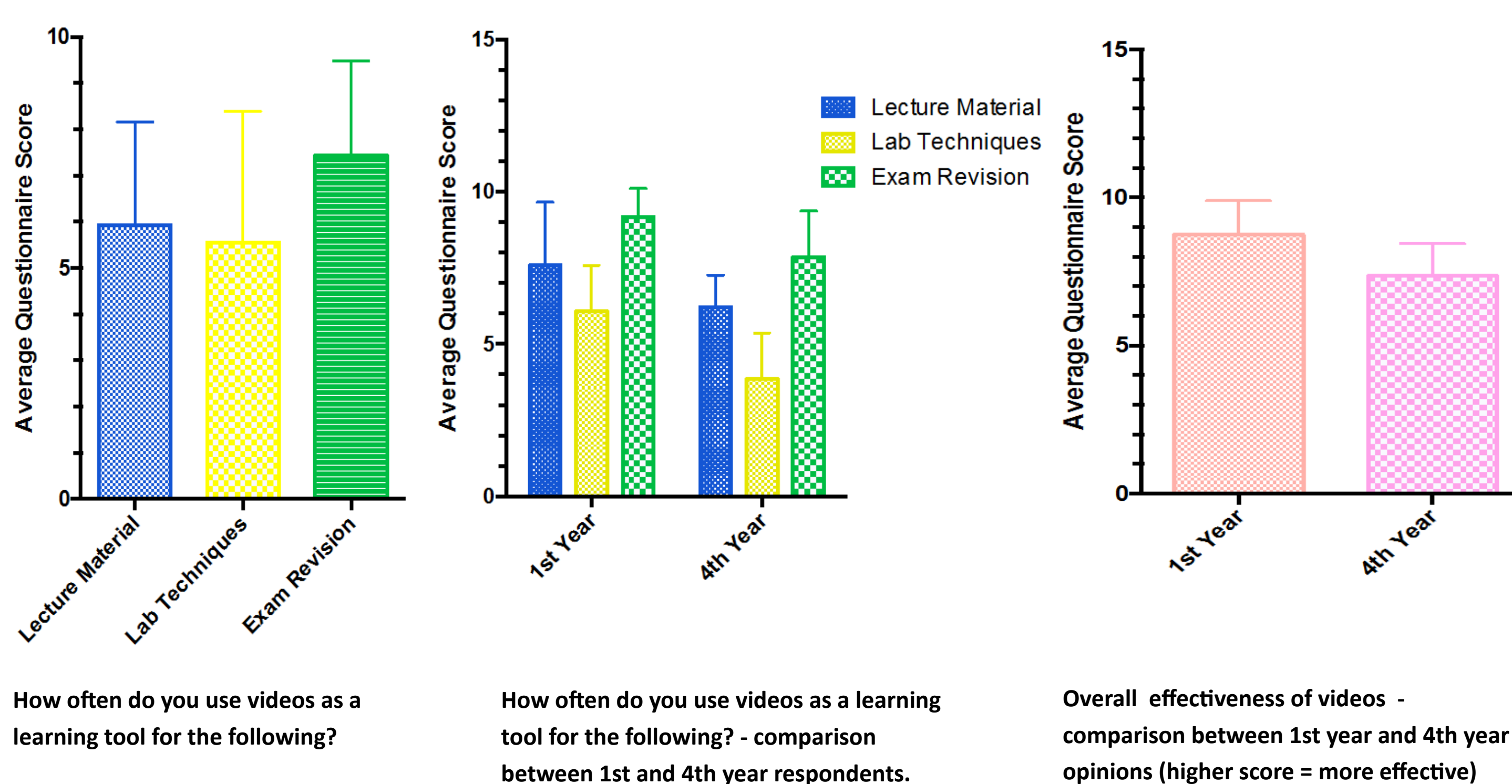
## Methods

- Four short videos developed by student as part of Honours project.
- Used basic camera phone, laptop and free software that came with the computer to demonstrate that expensive resources or advanced audio-visual expertise not always required.
- Used preliminary data from students regarding what they felt they knew well about or needed help with (see Figure 1).
- Videos posted online on student Facebook pages for any student to see and feedback invited via completion of brief, anonymous survey.

## Results



What type of learner do you think you are? (Respondent can select more than one option, n = 122)



How often do you use videos as a learning tool for the following?

How often do you use videos as a learning tool for the following? - comparison between 1st and 4th year respondents.

Overall effectiveness of videos - comparison between 1st year and 4th year opinions (higher score = more effective)

## Assessing Confidence of Laboratory Skills

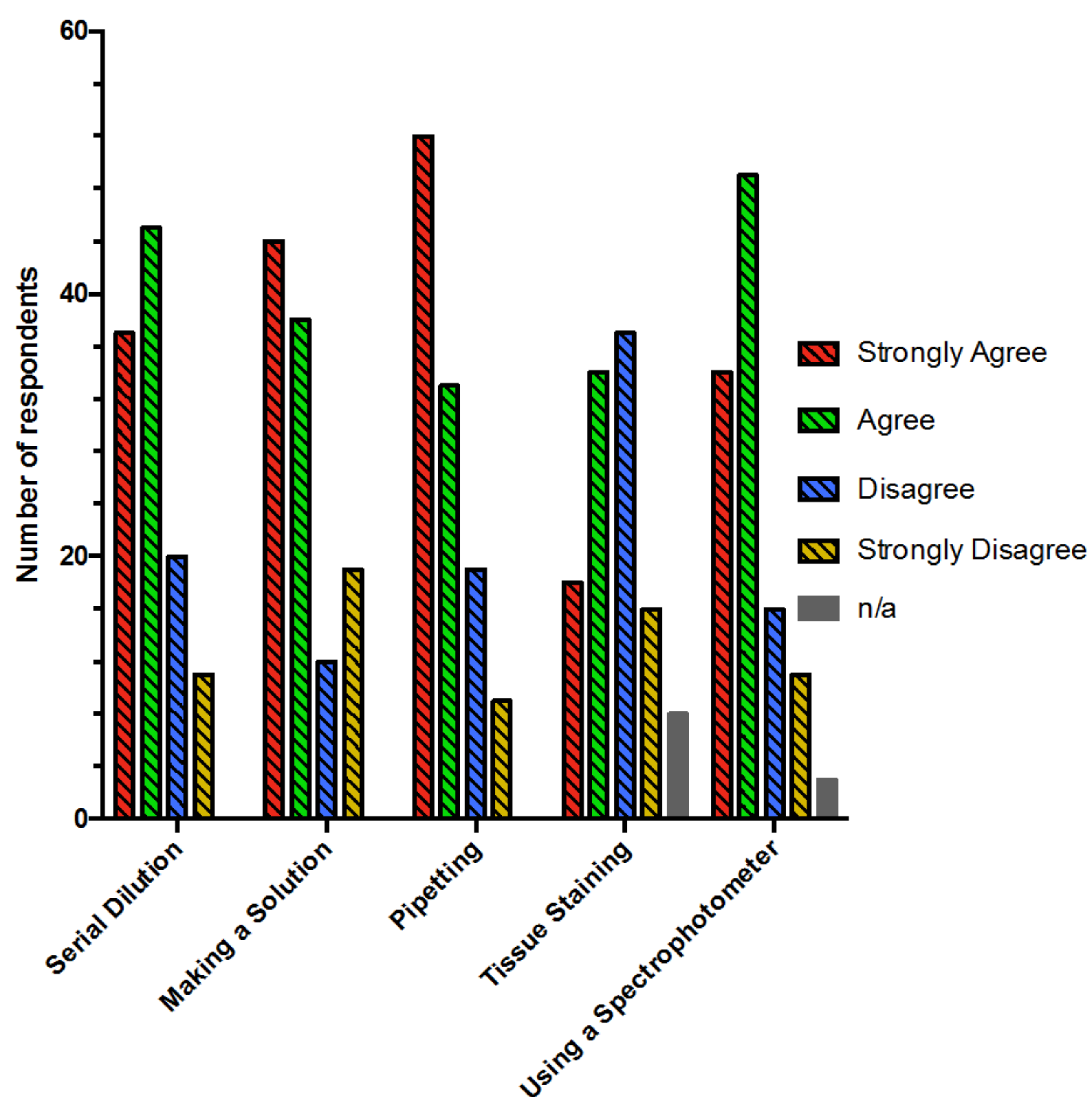


Figure 1. Preliminary anonymous feedback from students in levels 1-4 regarding confidence in relation to generic laboratory skills.

This data indicated that video resources might be potentially useful in improving the confidence and skills of some students in relation to these lab techniques. They could then focus more on the concepts they were investigating during practical classes, rather than worrying about doing things wrong (n = 113).

## Conclusions

- This project demonstrated that, with limited resources, video-based learning material can be developed that may improve students' practical skills.
- These visual resources should be pitched at the correct level and may allow students who struggle with other types of learning to improve their knowledge and understanding.
- Further material on a wider range of topics is currently in development and these will be freely distributed for anyone to use on the institutional VLE.