

S1 File: Undergraduate Student Survey

NB This survey was administered online via www.surveymonkey.com, so the layout below does not match the online version. The text and order of questions is identical, with the exception of where institutional specific terms have been amended for a broader audience [indicated with italic text].

| 1: Which year of study are you in? | |
|---|----------------------------|
| <i>2nd year</i> | <i>3rd year</i> |

| 2: Which subjects did you study for your <i>2nd year</i>? | | | |
|---|------------------------|--------------------------------|------------|
| Animal Biology | Biochemistry | Cell and Developmental Biology | Ecology |
| Neurobiology | Pathology | Pharmacology | Physiology |
| Plant and Microbial Sciences | Other [please specify] | | |

| 3: Which <i>3rd year</i> subject are you studying? | | | |
|--|------------------------|--|----------------|
| I am a <i>2nd year</i> student | Biochemistry | Genetics | Neuroscience |
| Pathology | Pharmacology | Physiology, Neuroscience and Development | Plant Sciences |
| Zoology | Other [please specify] | | |

| 4: On average, how many PRIMARY RESEARCH papers do you read? | | | | | |
|---|------|--------------|-----------------------|--------------|------------------------|
| Papers recommended by lecturers | None | One per term | One per lecture block | One per week | More than one per week |
| Papers required for <i>tutorial</i> discussions | None | One per term | One per lecture block | One per week | More than one per week |
| Papers recommended by <i>tutors</i> | None | One per term | One per lecture block | One per week | More than one per week |
| Papers recommended by other students | None | One per term | One per lecture block | One per week | More than one per week |
| Papers you have found yourself | None | One per term | One per lecture block | One per week | More than one per week |

| 5: On average, how many REVIEW papers do you read? | | | | | |
|---|------|--------------|-----------------------|--------------|------------------------|
| Papers recommended by lecturers | None | One per term | One per lecture block | One per week | More than one per week |
| Papers required for <i>tutorial</i> discussions | None | One per term | One per lecture block | One per week | More than one per week |
| Papers recommended by <i>tutors</i> | None | One per term | One per lecture block | One per week | More than one per week |
| Papers recommended by other students | None | One per term | One per lecture block | One per week | More than one per week |
| Papers you have found yourself | None | One per term | One per lecture block | One per week | More than one per week |

| 6: When trying to finding a paper, which of the following tools do you use? Select all that apply. | | | |
|---|------------------------|--------|---|
| Google | Google Scholar | PubMed | Mendeley |
| ScienceDirect | Web of Science | Scopus | Direct links to papers provided by others |
| Direct links to papers obtained via social media (e.g. Twitter, Facebook) | Other (please specify) | | |

| 7: To what extent would you agree with the following statements? | | | | | | |
|--|-------------------|----------|-------------------|----------------|-------|----------------|
| I enjoy reading research papers | Strongly Disagree | Disagree | Disagree somewhat | Agree somewhat | Agree | Strongly Agree |
| I am confident in reading research papers without guidance (e.g. from supervisors) | Strongly Disagree | Disagree | Disagree somewhat | Agree somewhat | Agree | Strongly Agree |
| I know how to find research papers on a given topic | Strongly Disagree | Disagree | Disagree somewhat | Agree somewhat | Agree | Strongly Agree |
| I know how to read research papers to extract information efficiently | Strongly Disagree | Disagree | Disagree somewhat | Agree somewhat | Agree | Strongly Agree |
| I know how to identify papers that are of critical importance to the area I am investigating | Strongly Disagree | Disagree | Disagree somewhat | Agree somewhat | Agree | Strongly Agree |

| 8: To what extent would you agree with the following statements? | | | | | | |
|---|-------------------|----------|-------------------|----------------|-------|----------------|
| Reading research papers is a good use of my time | Strongly Disagree | Disagree | Disagree somewhat | Agree somewhat | Agree | Strongly Agree |
| Reading research papers is frustrating | Strongly Disagree | Disagree | Disagree somewhat | Agree somewhat | Agree | Strongly Agree |
| Reading research papers is important for my general scientific training | Strongly Disagree | Disagree | Disagree somewhat | Agree somewhat | Agree | Strongly Agree |
| Reading research papers is important for success in this years exams | Strongly Disagree | Disagree | Disagree somewhat | Agree somewhat | Agree | Strongly Agree |

| 9: To what extent would you agree with the following statements: | | | | | | |
|---|-------------------|----------|-------------------|----------------|-------|----------------|
| I read PRIMARY RESEARCH papers to | | | | | | |
| Broaden my knowledge | Strongly Disagree | Disagree | Disagree somewhat | Agree somewhat | Agree | Strongly Agree |
| Understand the topic in more detail | Strongly Disagree | Disagree | Disagree somewhat | Agree somewhat | Agree | Strongly Agree |
| Critically evaluate the data | Strongly Disagree | Disagree | Disagree somewhat | Agree somewhat | Agree | Strongly Agree |
| Fill in gaps in understanding from the lectures | Strongly Disagree | Disagree | Disagree somewhat | Agree somewhat | Agree | Strongly Agree |
| Find examples to include in exam answers | Strongly Disagree | Disagree | Disagree somewhat | Agree somewhat | Agree | Strongly Agree |
| Understand the research methods used | Strongly Disagree | Disagree | Disagree somewhat | Agree somewhat | Agree | Strongly Agree |

| | | | | | | |
|-------------------------------|-------------------|----------|-------------------|----------------|-------|----------------|
| Improve my scientific writing | Strongly Disagree | Disagree | Disagree somewhat | Agree somewhat | Agree | Strongly Agree |
| Other (please specify) | | | | | | |

10: To what extent would you agree with the following statements:

I read REVIEW papers to

| | | | | | | |
|---|-------------------|----------|-------------------|----------------|-------|----------------|
| Broaden my knowledge | Strongly Disagree | Disagree | Disagree somewhat | Agree somewhat | Agree | Strongly Agree |
| Understand the topic in more detail | Strongly Disagree | Disagree | Disagree somewhat | Agree somewhat | Agree | Strongly Agree |
| Critically evaluate the data | Strongly Disagree | Disagree | Disagree somewhat | Agree somewhat | Agree | Strongly Agree |
| Fill in gaps in understanding from the lectures | Strongly Disagree | Disagree | Disagree somewhat | Agree somewhat | Agree | Strongly Agree |
| Find examples to include in exam answers | Strongly Disagree | Disagree | Disagree somewhat | Agree somewhat | Agree | Strongly Agree |
| Understand the research methods used | Strongly Disagree | Disagree | Disagree somewhat | Agree somewhat | Agree | Strongly Agree |
| Improve my scientific writing | Strongly Disagree | Disagree | Disagree somewhat | Agree somewhat | Agree | Strongly Agree |
| Other (please specify) | | | | | | |

11: How easy do you usually find it to understand the following aspects of a research paper?

| | | | | | | |
|----------------------------------|----------------|-----------|--------------------|---------------|------|-----------|
| Abstract | Very Difficult | Difficult | Somewhat difficult | Somewhat easy | Easy | Very Easy |
| Introduction | Very Difficult | Difficult | Somewhat difficult | Somewhat easy | Easy | Very Easy |
| Materials and Methods | Very Difficult | Difficult | Somewhat difficult | Somewhat easy | Easy | Very Easy |
| Results – Figures and Tables | Very Difficult | Difficult | Somewhat difficult | Somewhat easy | Easy | Very Easy |
| Results – Text based description | Very Difficult | Difficult | Somewhat difficult | Somewhat easy | Easy | Very Easy |
| Discussion | Very Difficult | Difficult | Somewhat difficult | Somewhat easy | Easy | Very Easy |

12: How important do you think the following aspects of a research paper are for understanding it?

| | | | | | | |
|----------------------------------|------------------|-------------|----------------------|--------------------|-----------|----------------|
| Abstract | Very Unimportant | Unimportant | Somewhat unimportant | Somewhat important | Important | Very Important |
| Introduction | Very Unimportant | Unimportant | Somewhat unimportant | Somewhat important | Important | Very Important |
| Materials and Methods | Very Unimportant | Unimportant | Somewhat unimportant | Somewhat important | Important | Very Important |
| Results – Figures and Tables | Very Unimportant | Unimportant | Somewhat unimportant | Somewhat important | Important | Very Important |
| Results – Text based description | Very Unimportant | Unimportant | Somewhat unimportant | Somewhat important | Important | Very Important |
| Discussion | Very Unimportant | Unimportant | Somewhat unimportant | Somewhat important | Important | Very Important |

13: Please rank the following sections of research papers in the order of how easy you find them to read. 1 = easiest, 6 = most difficult.

| | | | | | |
|----------|--------------|--------------------------|---------------------------------|-------------------------------------|------------|
| Abstract | Introduction | Materials and Methods | Results – Figures and Tables | Results – Text based description | Discussion |
|----------|--------------|--------------------------|---------------------------------|-------------------------------------|------------|

14: Please rank the following sections of papers in the order of importance you think they are to understanding research papers. 1 = most important, 6 = least important.

| | | | | | |
|----------|--------------|--------------------------|---------------------------------|-------------------------------------|------------|
| Abstract | Introduction | Materials and Methods | Results – Figures and Tables | Results – Text based description | Discussion |
|----------|--------------|--------------------------|---------------------------------|-------------------------------------|------------|

[Teaching Questions not relevant to current manuscript have been omitted for clarity here]

15: I give my consent for my answers to this survey to be used in any publications resulting from this work

| | |
|-----|----|
| Yes | No |
|-----|----|