



# YOUNG ACCELERATORS



## Academic Skills for Future Students

Student Workbook

2022



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## About this resource

QUT STEM High School Engagement has produced a range of short videos to help high school students with some of the key academic skills they need to know when they start uni. These skills are also valuable while at high school and will set students up with useful foundation skills for study success. These resources include a focus on students studying STEM (science, technology, engineering and mathematics).

We have also put together a student workbook that students can utilise on their own or in a classroom setting for teachers who would like to embed the videos and skills in existing curriculum activities. The contents for the workbook are as follows:

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Links to the video series can be found in this workbook or on the STEM High School Engagement [online learning hub](#).

If you have feedback for us please email [stemschools@qut.edu.au](mailto:stemschools@qut.edu.au)

### **QUT Young Accelerators**



## Topic 1: Transitioning to University



Watch the video 'Transitioning to Uni' here

### Activity 1 – What kind of organisational techniques work for you?

To make this episode, we asked our Student Ambassadors the question, “*What is the best piece of advice you wish you’d had before you started uni?*”

**Q. What were some of the key pieces of advice from Student Ambassadors that resonated with you? (e.g. being organised, taking charge of choices, advance planning, seeking support etc)**

In Year 11 and 12, you are already refining your academic skills such as managing time, staying motivated and problem solving.

**Discuss with classroom peers or reflect on your current organisational and time management strategies answering the following questions.**

1. How do you organise yourself so that you can enjoy your time off?
2. Do you have any strategies or routines that help? If so, what are they?
3. Do you tend to procrastinate, what are some of the things that distract you? What strategies can you put in place to limit procrastination?
4. What strategies do you put in place to stay on top of your work from week to week and throughout the term?
5. What were some of the techniques the Student Ambassadors use to study effectively? (e.g. compile notes, divide your study time into manageable amounts, flashcards etc.)

There are more tips on how to organise time in *Topic 5: Effective Study and Exam Preparation*.

### Activity 2 – Getting support

**Q. What are some the avenues for support at university that the Student Ambassadors mentioned or that you might know about?**

**Q. Why do you think attending Orientation (O-Week) is so important? What are some of the benefits of attending O-Week?**

### Activity 3 – Asking for help effectively

In the video, one of the Student Ambassadors, Rani mentioned that university lecturers allocate time each week as ‘consultation time’. This is time when students can e-mail their lecturer and know they will get a response.

**Q. If you are emailing or talking to a lecturer or tutor which of the following approaches is better? Discuss with classroom peers or reflect on why?**

**To:** Jared Snowdon (Senior Lecturer in Engineering ENG104)

Hi Sir

My name is Cate and I'm in your ENG104 lecture on Mondays and Fridays. I just don't get it. Chapter 4 doesn't make sense at all. I'm really worried about the assignment. I tried to talk to the Tutor but he was too busy.

Cate

**OR**

**To:** Jared Snowdon (Senior Lecturer in Engineering ENG104)

Dear Jared

My name is Cate and I'm in your ENG104 group.

I've read the chapter on Velocity of Sound and attended the associated tutorial this week. I have 2 questions regarding our assignment.

1. Are we measuring both the initial wave and the reflection wave?
2. In determining the resonant frequency, is it enough to just listen for an increase in sound at a given column length?

Thank you for your time.

Cate



## Topic 2: Assessment at University



Watch the video 'Assessment at University' here

### Activity 1 – How to complete assessments?

In the video Alice outlined her steps to completing an assessment. It is not a descriptive set of steps, just a general guide that she can alter depending on the task ahead.

Think about an important piece of assessment that you have completed and fill out the table below:

- In the first column fill in the steps Alice follows to complete an assignment.
- In the middle column fill in the steps you currently follow.
- Discuss or review the steps you personally follow, compare these with your peers or classmates. Look out for other people's good ideas!
- Go back to your chart and circle the areas where you could develop or add in further steps that would improve your process next time.

Alice's Assessment Process	My Assessment Process	What could I improve on?
1		
2		
3		
4		
5		
6		
7		

## Activity 2 – Are you prepared for writing at university?

Depending on subject choices, Years 11 and 12 provide a decent platform for learning good writing for university. In the video Alice explained that university academic writing is structured, logical, well-evidenced, accurately referenced, and formal in tone.

**Some things to consider – you can analyse these yourself or talk to your peers or classmates.**

- How proficient do you think your current level of writing is?
- Do you feel prepared for writing at university?
- Where do you sit on the writing spectrum below?

*I waffle on without really knowing my point.*

*I try to fill the word limit without looking at the criteria sheet.*

*I sit back and think through what I need to do logically.*

*I understand the concepts of academic writing.*



**What are some strategies for improving your writing?**

**What kind of help can you get at University to assist you with your coursework and assessment?**

***Remember writing is a ‘process’. We can all be good writers.***

For additional information you should also watch *Topic 4: Good Technical Writing*, which outlines 10 critical points related to writing at university.



## Topic 3: Researching and Reading



Watch the video 'Researching and Reading at University' here

### Activity 1 – What tips did you get from the segment?

This section covers a lot of useful information and strategies. It is a good idea to:

1. Watch the above video uninterrupted the first time
2. Next, watch the associated library [YouTube clip on referencing](#) which is short and very helpful
3. Re-watch the above 'Researching and Reading at University' video and fill in the tips related to the topics in the table below.

Topics	Good tips about researching
Researching	
Reading	
Note-taking	
Documenting sources	
Exam Preparation	



## Activity 2 – How do I know which sites are valuable?

School and University work needs to be well-evidenced. This means students will need a system for assessing whether a text or site is valuable. Look at Molly Beestrum’s C.R.A.P (currency, reliability, authority, purpose) test at this link:

→ [Read more on the C.R.A.P test here](#)

Think about one of your current assessment items and what resources you are considering using. Assess whether they pass the C.R.A.P test using the matrix below.

### Currency

- How recent is the information?
- How recently has the website been updated?
- Is it current enough for your topic?

### Reliability

- What kind of information is included in the resource?
- Is content of the resource primarily opinion? Is it balanced?
- Does the creator provide references or sources for data or quotations?

### Authority

- Who is the creator or author?
- What are their credentials?
- Who is the publisher or sponsor?
- Are they reputable?
- What is the publisher's interest (if any) in this information?
- Are there advertisements on the website? If so, are they cleared marked?

### Purpose/Point of View

- Is this fact or opinion? Does the author list sources or cite references?
- Is it biased? Does the author seem to be trying to push an agenda or particular side?
- Is the creator/author trying to sell you something? If so, is it clearly stated?

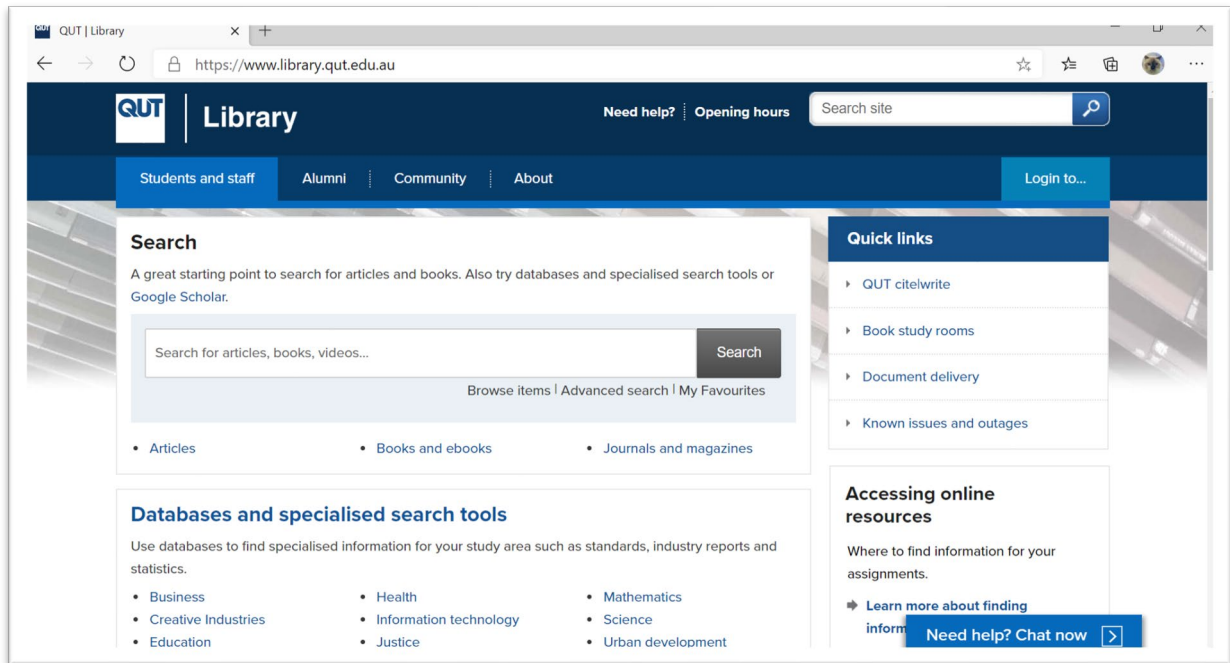
**What are some of the common search engines that the Student Ambassadors mentioned?**

Did you know that you QUT has an Open Access (OA) portal that you can use to research assignments? OA refers to research articles which are made freely available to everyone. Most universities now have an ‘institutional repository’ (or storage centre) where both freely available and restricted research outputs are stored. You can access QUT’s scholarly works through QUT E-Prints online.

Find out more at the STEM High School Engagement [Open Access Research Tips](#) resource.

### Activity 3 – What does the QUT Library home page look like?

Find the QUT Library home page. It will look like this:



Spend some time investigating this page.

- Can you find the QUT cite-write link? Click this and download a copy for your own reference.
- Look under the 'Databases and specialised search tools' to see the variety of information available.
- Click on 'Science' and try to find the 'Scifinder' database. Click on 'advanced search' in the top 'search' bar.
- Enter the following search terms:
  - "social interaction" (note: the speech marks mean the search keeps both terms together)
  - Mobile Phones (you may have to 'add' another line)
- Investigate how many texts are found. Try to narrow this down by using the filters on the left. Adjust so you are only looking at:
  - very recently published articles
  - only peer reviewed articles.

To learn more about searching using filters click on 'Library Search tips' – using filters.

## Notetaking template for research

Details	Tips	Your Notes
<b>WHO?</b>	<i>Record the name of the person, people or organisations that have written, compiled, or produced the article, book, book chapter, website, DVD etc. These may be authors, producers, editors, directors, government bodies or companies.</i>	
<b>WHAT?</b>	<i>Record the title of the information. This might be a single title such as a book, government report or Act. Or you might need to record two titles e.g. a book title and the chapter title, or a journal article and the title of the journal</i>	
<b>WHEN?</b>	<i>Record the date the information was published, released or produced. For websites, this is the date you visited the site and retrieved the information. If there is no date, make a note so you know you have not forgotten this detail.</i>	
<b>WHERE?</b>	<i>Record the place the information was published, released or produced. For websites, this is the site address of the information.</i>	
<b>WHAT ELSE?</b>	<i>Record other details that you might need to use in your referencing, citing and writing. These might include page numbers, volume and issue numbers of journal articles, DOI numbers and names of databases.</i>	
<b>KEYWORDS?</b>	<i>Record key words and concepts you used to find this information. This will help you find the information again or to search for related information in other sources.</i>	

## Topic 4: Good Technical Writing in STEM



Watch the video 'Good technical writing in STEM' here

### Activity 1 – Are you ready for university referencing?

In the video Rani focussed on the 'key' writing points prospective uni students should take on board. Your teachers in Years 11 and 12 will already be giving you similar writing tips.

**Consider your approach to referencing and discuss with peers or classmates:**

- Why do we need to reference?
- Do you provide in text references and reference lists in your current subjects?
- What referencing style do your teachers ask for?
- What are the issues when relying on source generators or reference management software?

### Activity 2 – Do you use the words of others powerfully?

Look closely at Madura's examples on quoting, paraphrasing and referencing.

Discuss how and why a paraphrase can be more powerful.

Find an example in one of your assessments where you paraphrased. Check whether it was just 'added in' or if it really strengthened your argument.

### Activity 3 – Get to know Cite-write

Download Cite-write from here → <https://www.citewrite.qut.edu.au>

Keep a copy of this on your desktop. Look through the information and be familiar with expectations for university writing.



Check out this 4-minute YouTube video on APA Style referencing

## Topic 5: Effective Study and Exam Preparation



Watch the video 'Go Effective study and exam preparation' here

### Activity 1 – How do you study and prepare for exams?

The Ambassadors in the video talked about how they study effectively to maximise exam results. After watching the whole episode, note all the study tips on the left – do not fill out the right-side yet.

Exam tips from Ambassadors	Your tips for effective study

### Activity 2 – How do you absorb new and complex information?

University is all about gaining new knowledge. Think about how you absorb and retain new knowledge. Maybe you do *Quizlet* online, make flash cards, attach notes to your wall, use rhymes or mind maps! Think carefully about what has worked for you.

On the right-hand side of the table above fill in your tips for absorbing and retaining new information.

Discuss these methods with your peers and look out for good ideas from other students.

### Activity 3 – Have you tried Quizlet?

This is a good time to see if [Quizlet](#) works for you. Jump on to [Quizlet](#) to create quiz questions that will help you with an upcoming exam. You can test yourself or work with your peers as a group to test each other.

Do you know of any other apps or websites that help? Share those ideas too. Consider some apps may be better for certain subjects.

## Topic 6: Working in Groups



Watch the video 'Working in groups' here

### Activity 1 – What kind of group member are you?

In the senior years personal performance is important, but most students are surprised how much group work is involved at university, especially in STEM.

In the video Krishore gave a great example of how he realised he had let his group down on one occasion. Do you know what kind of group member you are?

Using the table below, think about the key elements of groupwork listed in column one, then rate how you consider yourself as a group member in column two. In column three, note down some tips for maintaining or improving your groupwork skills.

Key elements of groupwork	My score (1 – 5) <i>1 being the highest</i>	Tips for good groupwork
Planning and sharing workloads		
Communication		
Time management		
Giving feedback to group members		
Exam Preparation		

### Activity 2 – Problem-solving in groups

Working with your peers in a small group, complete the following task to find out about how effectively you can solve problems as a group.

#### Task:

*Your school has been given an anonymous grant of \$50 000. Use the next 3 – 5 minutes to decide how the money will be best spent. Produce a realistic process and bullet point the steps that need to be taken. One student should take notes of the key steps. One student should be the timer. All students should contribute.*

After the task answer the following questions as a team.

Questions	Yes	No	Room for improvement
Was your group successful i.e. did you develop a process for the grant in the allotted time?			
Were tasks allocated well to achieve goals?			
Did everybody follow the rules?			
Did anybody deliberately slow the group down?			
Did everybody contribute in some way?			
Did anybody talk a lot more than anybody else? Also, was anybody quiet?			
Think about your personal contribution. Do you think you were a collaborative and helpful group member?			

**Well Done!**

*You have now completed the  
QUT Young Accelerators – Academic Skills Workbook.*





## Contact us

If you have any questions or comments about this resource or any of our other programs, please get in touch.

- Email [stemschools@qut.edu.au](mailto:stemschools@qut.edu.au)
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