THE UNIVERSITY *of* EDINBURGH
Centre for Open Learning

English Language Education

Academic Reading for Informatics

I was here!

Just click 'Yes' and submit. Thanks!

https://forms.office.com/e/A1xAsDN192

1   **Reading**

2   **Sources & Referencing**

3   **Writing**

The CHALLENGES of academic reading

Ask your neighbour:

- Quantity
- Selective reading
- Complex Language
- Maintaining focus
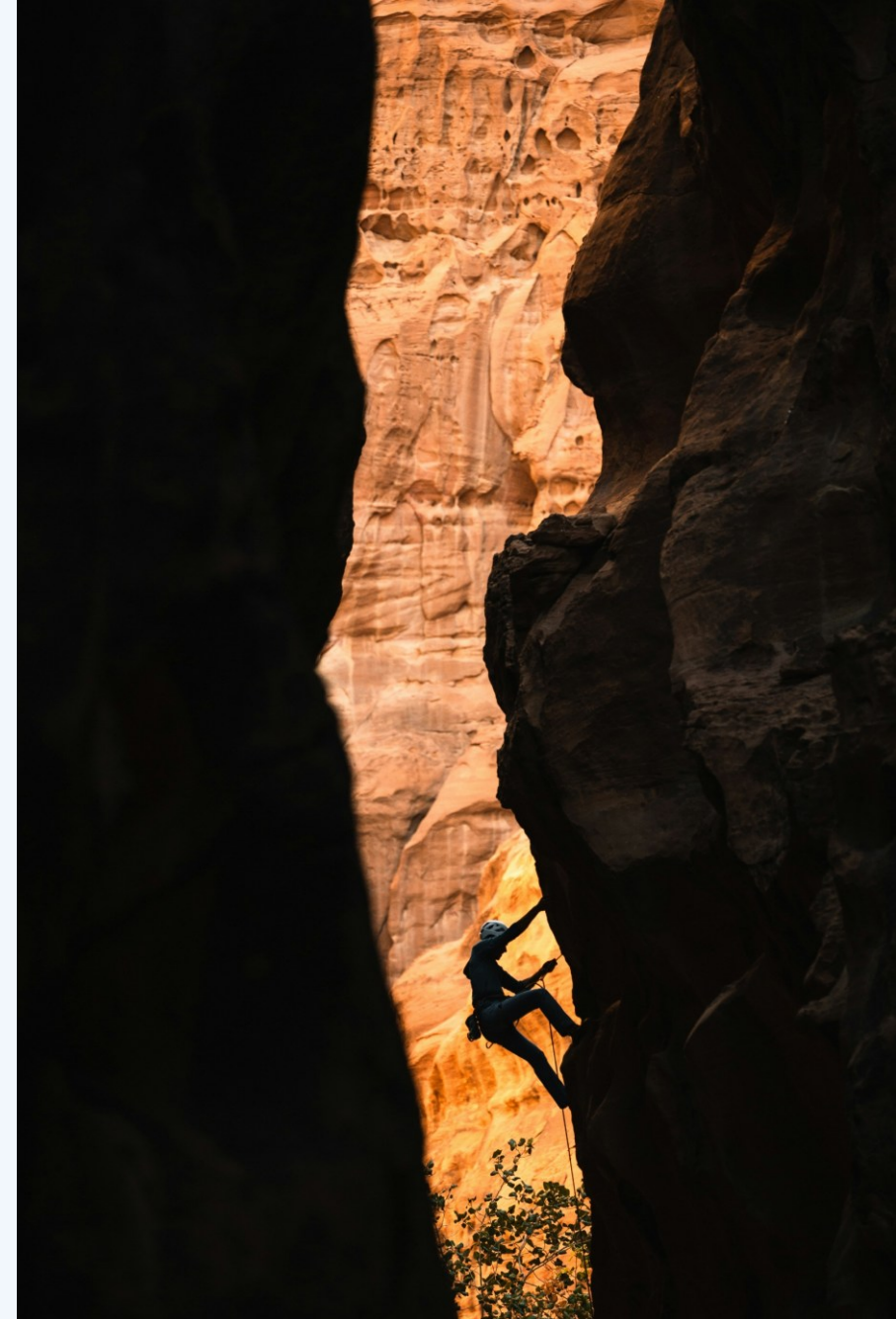- Retention of ideas
- Critical reading

The CHALLENGES of academic reading: Quantity

- Where available, use reading lists provided: required vs recommended
- Prioritise: pre-reading vs post-reading
- Form a study group

- Adopt appropriate reading strategies: know the genre; skim vs scan vs focused
- Be systematic with **active** note-taking

- Searching for sources: **Library Bitesize**
  - https://library.ed.ac.uk/academic-support-librarians/asl-info-literacy
  - Media Hopper https://media.ed.ac.uk/esearch/search?keyword=library%2520bitesize
- **IAD** https://institute-academic-development.ed.ac.uk/study-hub/learning-resources

The CHALLENGES of academic reading: Selective reading

- be clear about your purpose for reading: what exactly are you looking for?

- use a set of selection criteria to identify potential sources

- familiarise yourself with the structure and organisation of journal articles, textbooks & other types of material you need to read

- adopt an appropriate approach to reading each genre

- read only the parts of sources you need to read to decide if they are worth more of your time

- adopt appropriate reading strategies: skim vs scan vs focused

- take **active**, **critical** notes: **Writing begins with reading!**

Note-taking Proforma

"Paper Annotation Tool"

Source: Aliotta, M. 2018 **Mastering Academic Writing in the Sciences**. CRC Press

Amend the questions
to suit your purpose.

Adapt the Cornell notes system.

https://lsc.cornell.edu/how-to-study/taking-notes/cornell-note-taking-system/

Note-taking Proforma

Title:

Journal:

Author(s):

Volume:

Year:

Page(s):

What is the paper about?

What is the aim of the study?

Why is it important?

What is the approach/method used to acquire the data?

What is the approach/method used to analyse the data?

What are the key findings?

Are there any limitations?

What are the main conclusions and implications in the wider context?

Any other comments?

The CHALLENGES of academic reading: Selective reading

Example: *Journal article*

- IMRaD

- Title; Abstract; **I**ntroduction; **M**ethods; **R**esults; **D**iscussion (Conclusions); Appendices; References

- Subheadings; topic sentences; paragraphs

- Tables, graphs, diagrams

Approach

- Purpose for reading: *Why am I reading this? What exactly do I want to know?*

- Title, abstract, introductory & concluding paragraphs, topic sentences

- Selective focused reading & **<u>active</u>** note-taking

The CHALLENGES of academic reading: Complex Language

- Complex sentences
    - Break them into sections (clauses): punctuation & connectors
    - Identify the subject (pronoun, noun, noun phrase)
    - Identify reference words: what do they refer to?
- Identify & learn the vocabulary you need to know
- Do I need to know this word?
    - Yes: can I guess the meaning from its context? No? Look it up.
   - No: move on.
- Academic Word List

The CHALLENGES of academic reading: AWL

- AWL 570 word families in 10 frequency-based groups called "sublists".
- AWL (10%) + GSL* (>2000 headwords/80%) = 90% coverage of words in academic texts.
  * General Service List

analyse	1	analysed, analyser, analysers, analyses, analysing, analysis, analyst, analysts, analytic, analytical, analytically, analyze, analyzed, analyzes, analyzing
regulate	2	deregulated, deregulates, deregulating, deregulation, regulated, regulates, regulating, regulation, regulations, regulator, regulators, regulatory, unregulated
emphasis	3	emphasise, emphasised, emphasising, emphasize, emphasized, emphasizes, emphasizing, emphatic, emphatically
persist	10	persisted, persistence, persistent, persistently, persisting, persists

The CHALLENGES of academic reading: Maintaining focus

- Know yourself: when is your focus at its best for reading?
- Take regular breaks
  - *Pomodoro technique*
    - 25mins/5mins
    - Repeat x3
    - 20mins break
- Change focus
  - Take notes regularly
  - Reflect on what you've read
 - Relate that back to your purpose for reading
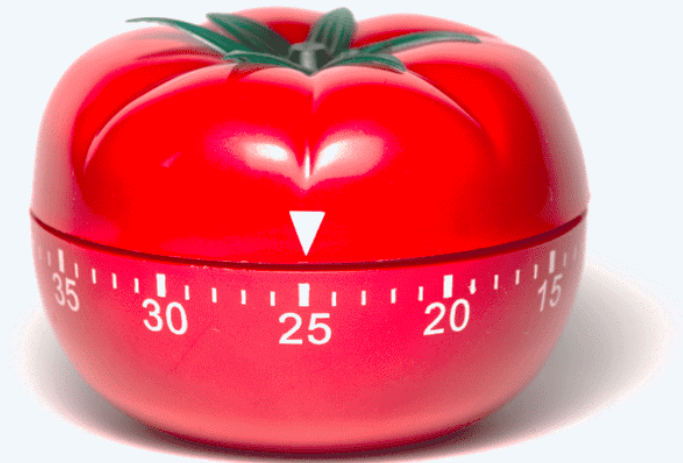
The CHALLENGES of academic reading: Retention of ideas

- Review the notes you've taken regularly as you read.

- Relate them to your purpose for reading.

- Make connections between ideas.

- Remember: Writing begins with reading ⟶ effective note-taking **in your own words** as much as you can, unless the original text is essential.

The CHALLENGES of academic reading: Critical reading

- Critical writing begins with critical reading!
- Always be aware of your purpose for reading.
- Relate what you are reading back to that purpose (this could be your evolving hypothesis or main argument: your answer to the question).
- Questions you should ask yourself as you read:
  - **Description**: *What?   Where?   Who?   When?   How?*
  - **Analysis**: *Why?   What if…?   Evidence?   Assumptions?*
  - **Evaluation**: *So what?   Implications?   What next?*
- Take notes: distinguish main ideas from supporting detail.
- Make connections.
- Reflect.

SQ3R: a technique to address those challenges
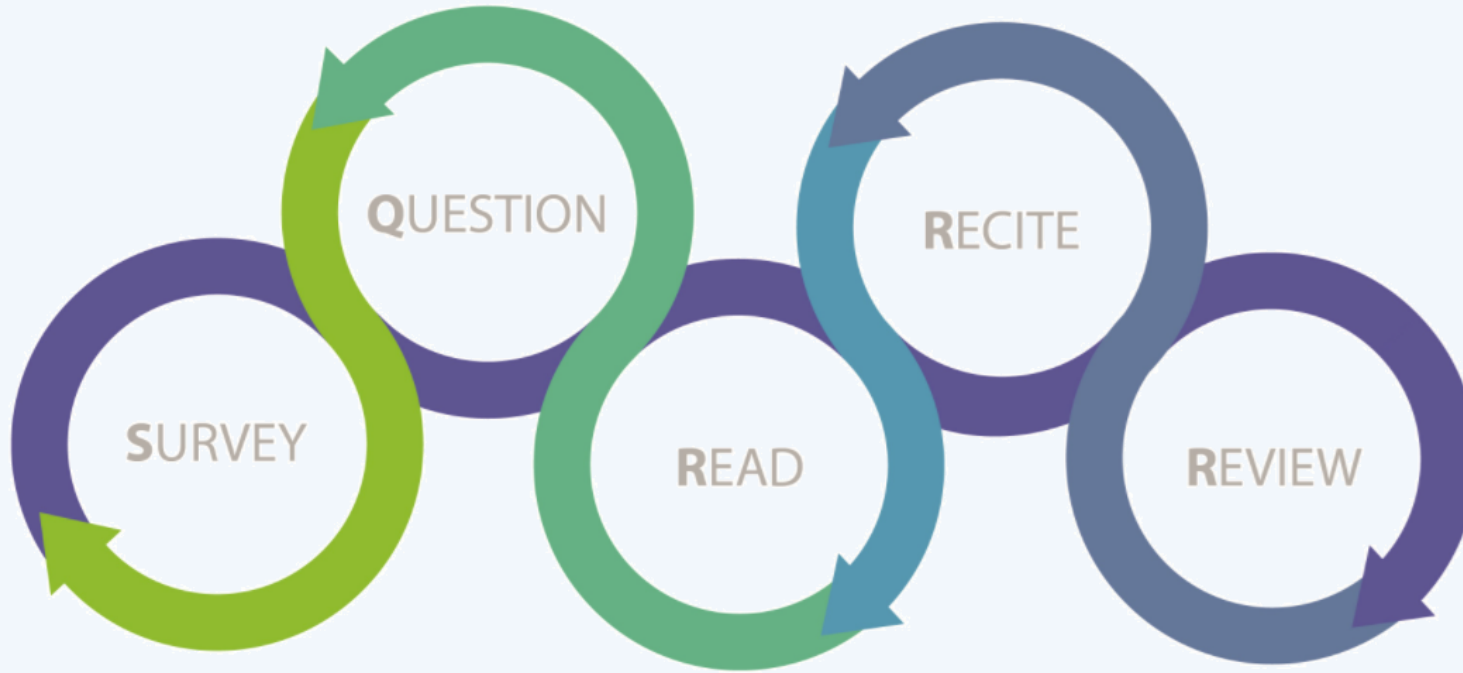
From Reading into Writing

Reading will be strongly connected to your writing. Most of what you write will be linked to what you read. Remember your purpose for reading? You will need to:

- Take or dictate notes on what you read.

- Use your own words.

- Compare what you read.

- Ask yourself questions, comment on and evaluate what you read.

- Differentiate your views and commentary from those of the texts you read (*How do you do that?*).

Using Sources

Turn to your neighbour again:

1. Why is it important, if not in fact essential, to refer to your sources in academic writing in UK Higher Education?
2. What are some of the different ways authors can refer to their sources?
3. How do you usually refer to your sources in your academic writing?

Using sources

Quick Task

1   Read the following text. Identify where sources are used.

2   How were you able to distinguish the authors' voice from the source?

3   Whose voice is more important: that of the authors or the source?

4   Why have the authors used their sources where they have

H. Kum, A. Krishnamurthy, A. Machanavajjhala and S. C. Ahalt, "Social Genome: Putting Big Data to Work for Population Informatics," in *Computer*, vol. 47, no. 1, pp. 56-63, Jan. 2014.
doi: 10.1109/MC.2013.405
URL: http://ieeexplore.ieee.org.ezproxy.is.ed.ac.uk/stamp/stamp.jsp?tp=&arnumber=6678338&isnumber=6750428

In the computer science literature, privacy refers broadly to collection, maintenance, disclosure, and control of, and access to, information about individuals.[11] It is helpful to note that in many other fields privacy refers more narrowly to safe data collection (data input), whereas confidentiality refers to safe information disclosure (data output).[3] Kenneth Prewitt, former director of the US Census Bureau, states that, privacy is akin to "don't ask" and confidentiality is akin to "don't tell." Some security technologies are applicable to both, and others are specific to only one purpose.

Accidental or purposeful misuse of social genome data has the potential to cause harm to individuals. In addition, privacy and confidentiality breaches can lead to legal consequences, especially in government and research settings. Thus, privacy and confidentiality protection is critical to the success of population informatics research. Protecting privacy and confidentiality in secondary data analysis is complex and requires a holistic approach involving technology, statistics, governance, and a shift in culture of information accountability through transparency rather than secrecy. Information accountability focuses on monitoring use of sensitive data to hold users of that data accountable for any misuse.[12] For example, protection of financial credit history data is mainly based on information accountability, where all parties know who used what information for what purposes with strict laws to hold them all accountable.

Governance models also play an important role in maximizing protection. Helen Nissenbaum provides a practical legal framework for privacy protection of personal information referred to as contextual integrity—that is, privacy protection depends on the context and the expected norms of protection given a particular situation.[13] From a technical standpoint, these privacy standards result in policy requirements on digital data about who has access to which data, for what purpose, and how the data should be maintained. The most relevant question for population informatics research is, "What are the expected norms of ethical conduct for doing research with person-level data in a given society?" Each country must start a discourse on the ethics of data analysis that draws on personal data.

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References

3. S. Fienberg, "Confidentiality, Privacy and Disclosure Limitation," Encyclopedia of Social Measurement, Academic Press, 2005, pp. 463–469.

11. K. Prewitt, "Why It Matters to Distinguish between Privacy and Confidentiality," J. Privacy and Confidentiality, vol. 3, no. 2, 2011, article 3.

12. D.J. Weitzner et al., "Information Accountability," Comm. ACM, vol. 51, no. 6, 2008, pp. 82–87.

13. H. Nissenbaum, "Privacy as Contextual Integrity," Washington Law Rev., vol. 79, no. 1, 2004, pp. 19–158.

Introducing your source: a choice

Author-prominent: author's name will be the main subject of the sentence.

- Kenneth Prewitt, former director of the US Census Bureau, states that …

- Helen Nissenbaum provides …

Reporting verbs: **assert**, **claim**, **maintain**, **outline**, **suggest**, etc.

DO **NOT** USE '**said**' or '**mention**'!!

For more details on reporting verbs: https://www.eapfoundation.com/writing/references/reporting/

Information-prominent: author's name may only be mentioned in brackets (…) or via a number notation system (e.g. footnotes and endnotes).

- … data accountable for any misuse.[12]

- … data accountable for any misuse (Weitzner et al., 2008)

For more details, see: http://www.phrasebank.manchester.ac.uk/referring-to-sources/

Introducing your source: a choice

Author-prominent

- You want to highlight or focus on the work of particular authors or studies
- Focus on the actions of the researchers
- Respect/courtesy?
- Stylistic preference: more personal?
- Less common in STEM disciplines?

Information-prominent

- You want to highlight the information in a particular study or a number of related studies
- By far the most common form of citation in published papers and advanced student writing.
- Helps you develop your own voice as writer?

Using sources

Quick Task

1   Read the following text. Identify where sources are used.

2   How were you able to distinguish the authors' voice from the source?

3   Whose voice is more important: that of the authors or the source?

4   Why have the authors used their sources the way they have?

Integrating your sources into your writing

Summarising

- Describes the key points which are relevant to your argument

- Summaries can be concise or extended

Paraphrasing

- Recounting an idea from another author in your own words

- Note down the page number for content that you paraphrase

Quoting directly

- Writing the quotation as it appears in the original text

- Use quotation marks and note the page number of any quotation you wish to include

Integrating your sources into your writing: Synthesising

What is it?   What does it involve?
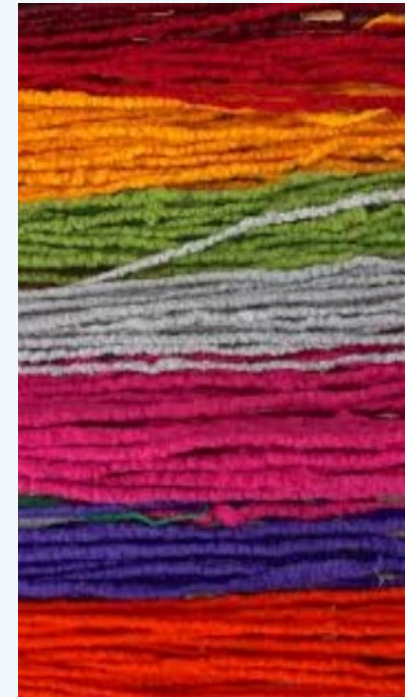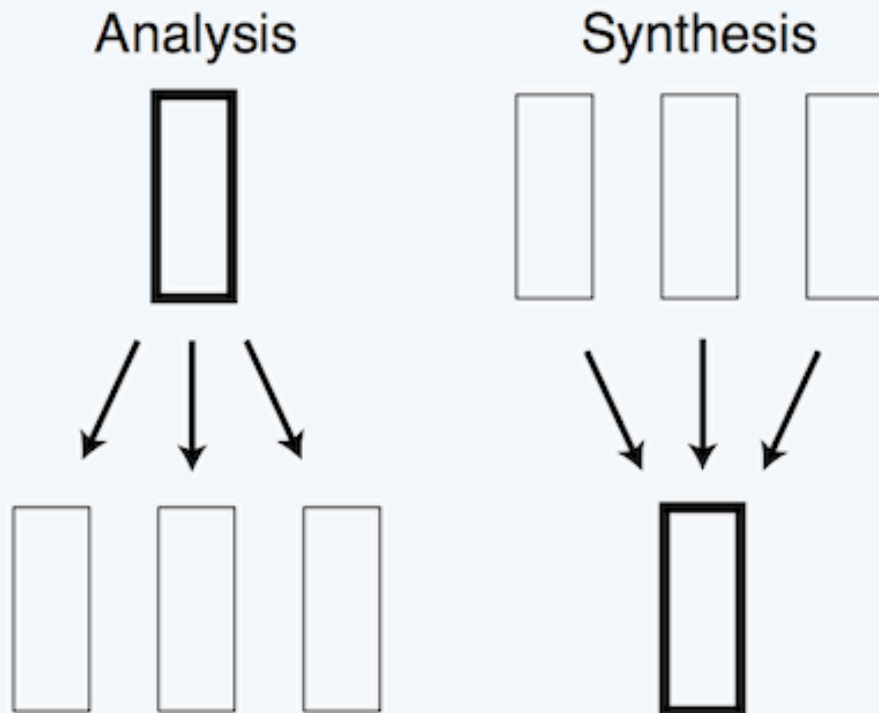
Integrating your sources into your writing: Synthesise

Purpose: to combine different information and ideas from a range of sources and integrate them into your text in order to develop your own argument.

This requires critical reading and thinking to identify similarities, differences, connections, cause & effect, bringing your analyses together into a logical and cohesive whole. Essentially, you use your own words (summarising and paraphrasing as appropriate).

Remember to reference every source you use.

Integrating your sources into your writing: Synthesising

Example 1

Two meta-analyses of observational studies published in 2016 **both concluded** that total dairy consumption was inversely associated with risk of overweight and obesity in children (16, 17). **Likewise**, a review of dairy consumption in children and adolescents, with a focus on results from the Healthy Lifestyle in Europe by Nutrition in Adolescence (HELENA) study, found that higher consumption of milk and yogurt was associated with improved cardiovascular risk factors (18). **Similarly**, a non-systematic critical review concluded that milk and other dairy products were consistently not associated, or inversely associated, with indicators of adiposity in children (19).

Source: O'Sullivan, T., Schmidt, K. A., & Kratz, M. (2020). Whole-fat or reduced-fat dairy product intake, adiposity, and cardiometabolic heath in children: A systematic review. *Advances in Nutrition (11)*4, 928-950. https://doi.org/10.1093/advances/nmaa011

Integrating your sources into your writing: Synthesising Example

Example 2

Individuals are classified as either an extrovert or an introvert. Extroversion describes people who are outgoing, sociable, assertive, and optimistic and are in search of excitement (McAdams 2014; McShane & Travaglione 2015). Extroverts are confident in their abilities to accomplish tasks effectively and have faith in themselves. They enjoy risk taking, but can be unreliable and can lose their temper easily (Mathews, Deary & Whiteman 2013). Extroverts also focus more on the positive aspects and outcomes of life and therefore they have a greater level of self confidence. **On the other hand,** introverts are described as being shy, quiet, withdrawn, less likely to make bad impulsive decisions and are more cautious in their actions (Matthews, Deary & Whiteman 2013; McAdams 2014; McShane & Traviglione 2015). As a consequence, introverts are more likely to place weight on the negative outcomes and aspects of social situations (McAdams 2014) and prefer to be alone, **whereas** extroverts have the ability to make friends quickly.

Integrating your sources into your writing: Synthesising

Common pitfalls

- Not distinguishing clearly which viewpoint/s belong to which author/s and which belong to you!

- Listing sources separately or one by one, thus not grouping relevant sources or points together around a common theme (= cohesion).

- Giving too much detail about different perspectives rather than being selective of the key features relevant to your line of argument.

- Describing the source idea/argument but not explaining the significance to your own argument or point you are trying to make.

Quick response survey

Please take a couple of
moments to answer this
really short survey
about this lecture – just
4 questions!

https://forms.office.com/e/h5KjKAfXhv

Integrating your sources into your writing: Quote Directly

Purpose: to cite a beautifully explained or phrased idea that you couldn't improve on or to repeat a famous quotation or cite an authoritative source.

Example: As Darwin (1860: p81) explained, *"This preservation of favourable variations, and the rejection of injurious variations, I call natural selection."*

Integrating your sources into your writing: Paraphrase

Purpose: to keep all the content but reformulate the original to fit the focus and flow of your own purpose/argument.

Example: *With child vaccination rates falling, are parents who opt out putting everyone at risk? (Smith & Jones, 2016)*

Paraphrase for a paragraph about vaccination rates: *The decline in the number of child inoculations due to parental anxiety may be increasing the risk of disease in the population. (Smith & Jones, 2016)*

Paraphrase for a paragraph about health issues and parents: *Nervous parents may be increasing the risk of disease in the wider population by refusing to have their children vaccinated. (Smith & Jones, 2016)*

Integrating your sources into your writing: Summarise

Purpose: to condense the scope and emphasis of a relatively large amount of material efficiently and concisely.

Example: Original source (see slide 32 for summary)

World politics is entering a new phase, and intellectuals have not hesitated to proliferate visions of what it will be: the end of history; the return of traditional rivalries between nation states; and the decline of the nation state from the conflicting pulls of tribalism and globalism, among others. Each of these visions catches aspects of the emerging reality. Yet they all miss a crucial, indeed a central, aspect of what global politics is likely to be in the coming years.

It is my hypothesis that the fundamental source of conflict in this new world will not be primarily ideological or primarily economic. The great divisions among humankind and the dominating source of conflict will be cultural. Nation states will remain the most powerful actors in world affairs, but the principal conflicts of global politics will occur between nations and groups of different civilizations. The clash of civilizations will dominate global politics. The fault lines between civilizations will be the battle lines of the future.

Source: Huntington, S. P. (1993). The Clash of Civilizations. *Foreign Affairs*, 72(3), 22

The Steps when Summarising a source

1. Read the original text carefully and check any new or difficult vocabulary.

2. Mark the key points by underlining or highlighting.

3. Make notes of the relevant key points, rephrasing where possible.

4. Write the summary from your notes, re-organising the structure if needed.

5. Check the summary to ensure it is accurate and nothing important has been changed or lost.

Integrating your sources into your writing: Summarise

Example Summary: *According to Huntingdon (1993), while nations will retain their global power, the future of world politics is likely to be dominated by clashes between different cultures and civilisations rather than by the international rivalries or national breakdowns of the past.*

Integrating your sources into your writing: Summarise

An effective summary …

- focuses on the key, relevant information

- accurately represents the original

- is clearly expressed in your own words

- is significantly shorter than the original text

- correctly acknowledges a source

References and further … reading …

- https://www.wgtn.ac.nz/student-learning/studyhub/academic-reading/challenges-in-academic-reading
- http://www.uefap.com/reading/
- https://www.plymouth.ac.uk/uploads/production/document/path/1/1710/Critical_Thinking.pdf
- https://www.eapfoundation.com/vocab/academic/awllists/
- https://www.eapfoundation.com/vocab/general/gsl/
- https://www.eapfoundation.com/vocab/general/gsl/frequency/
- https://usm.maine.edu/agile/sq3r-method

- Aliotta, M. 2018 **Mastering Academic Writing in the Sciences**. CRC Press

Academic Language & Literacy
Helpful sources on reading for
academic studies available to you.

English Language Education (ELE)
https://www.ed.ac.uk/english-language-teaching

Academic Language and Literacies for In-sessional Study (ALLIS)

- ELE offers online and in-person writing and speaking courses to postgraduate students.

- The courses are free of charge and non-credit bearing.

- Courses are 4 weeks (2 each in Semesters 1 and 2)

- Places are allocated on a first-come, first-served basis.

- All our teachers are very experienced in teaching English for academic purposes and working with international students from different disciplines.

- Popular, so book early!!

https://www.ed.ac.uk/english-language-teaching/insession-courses/elsis

Graduate Writing Centre

ENGLISH LANGUAGE EDUCATION

English Language Education home

In-sessional English language courses

Academic Language and Literacies for In-Sessional Study (ALLIS) (Formerly ELSIS)

Graduate Writing Centre

Home > English Language Education > In-sessional English language courses > Grad...

Graduate Writing Centre

Information about online one-to-one academic writing tutorials (PGT and PGR).

In addition to our other courses, English Language Education (ELE) offers one-to-one PGR) and members of staff. Undergraduate students seeking academic writing deve...

Our online one-to-one sessions are approximately 45 minutes long and are designed writing with an English for Academic Purposes expert.

What can I discuss?

You should prepare to upload a piece of your writing (around 350 words) that you w questions) for discussion.

We can offer advice on all aspects of writing from the macro-level to the micro-level

- meet expectations in your discipline, considering the genre you are being asked
- organise, link and develop your ideas

- Need help with your writing at any time of the semester?
- You can receive one-to-one consultations in an online academic writing tutorial (40 minutes) for postgraduate (PGT & PGR) international students
- Available to October to June
- NOT a proofreading service!!
- Booking is via MyEd.

Institute for Academic Development (IAD)

https://institute-academic-development.ed.ac.uk/study-hub
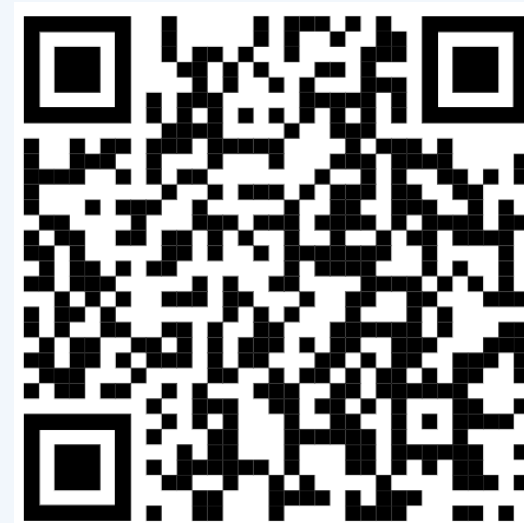
SQ3R for reading & making notes

This is a system originally devised by Francis Robinson of Ohio State University in the 1940s (Pauk & Fiore, 2000, p65). A range of versions of it can be found in study guides, both in print and online. This is one interpretation of the five-step method.
- Adapt the method to suit you, your purpose and your subject area.

Top tip
Before starting become familiar with the organisation of the text book. Your course outline will help you identify which parts you need.

Survey

Survey: Skim and scan the chosen chapter or part of the text you need to study to get an overall view. Pay attention to diagrams and images. The headings and subheadings will signpost the general structure. This should only take a few minutes.

Question

Question: Write down the questions you would like to clarify. You can also turn relevant headings and subheadings in the text into questions. Some questions may be based on an assignment.

1: Read

Read a section of the text once without making notes. The length of the section will depend on what you are comfortable with. Keep your questions in mind. Is the text relevant? What might be useful? You might study a key diagram in detail that goes with the text.

2: Recall

Recall: Mark the page and close the book. Go over what you have just read in your own mind. Write down a summary or outline including key phrases. Concentrate on the most relevant material. You can sketch out and annotate a key diagram. Seek to answer some of the questions you have.
- If you're finding it hard to remember what you've just read glance over the section again.
- Now read a new section and repeat R1 and R2 until you get to the end of the chapter or part of the text you want to study.

3: Review

Review: Look over your notes and check that you have the main points from the text. Check any sketched diagrams for accuracy.
- Add value to your notes. Put in page numbers and add in key quotations (particularly important if you are reading for an assignment as you will need to reference your sources).
- You should have answers for the questions you started out with.
- Keep the list of questions to test your memory.
- Have you some new questions to add?

Ref: Pauk, W. & Fiore, J.P. (2000) **Succeed in College!** Houghton Mifflin, Boston & NY.

Institute for Academic Development

**SQ3R
for reading & making notes**

https://www.ed.ac.uk/institute-academic-development/study-hub/learning-resources

Institute for Academic Development

Tackling a textbook

Reading a research paper

1 Find the context

Recommended course books: These are textbooks which aim to summarise a large body of work. → **Review papers:** Academic papers giving an overview of research with evaluation and comment. → **Selected original research papers.**

Read the abstract and skim the article:
Does it meet your purpose?
What questions do you want to answer?

Key papers need to be read closely and should be prioritised.

Take down the details
- Author, article title, year of publication and journal title in the reference format you need to use.
- Note the volume, issue and page numbers so you can find it again.

2 Concentrate on beginnings and endings

Read the introduction
This can be a good way of establishing the research questions and any hypothesis.
- Usually authors give signposts to the most important parts of their writing.
- Take a note of any key issues and concepts.
- Take a quick look at any diagrams and tables of results.

Skip to the end and read the conclusion
- This should help you confirm what the author's main ideas are.
- Make a note of the key findings and any key quotations.

Pause to think.
You should have a good idea of what the research is about and the conclusions.
- Are the main ideas clear – do you need to skim and scan and clarify some things?
- Make some summary notes in your own words.

Do you need to read any more of this paper? → Ditch the paper?

Be critical
Theoretical basis?
Influences?
Bias?
Sound methods?
Alternatives? Reliability?
Statistical significance?
Conflicts of interest?

If you decide to read more
Identify sections requiring close reading.
Scan for specific information such as supporting evidence.
Always have a list of questions in mind – be critical.

Check the reference list
What sources has the author used?
Is anything missing?
Are there other books or articles that might help you?

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Institute for Academic Development

Tackling a journal article

https://www.ed.ac.uk/institute-academic-development/study-hub/learning-resources

Institute for Academic Development

Reading notes record sheet

https://www.ed.ac.uk/institute-academic-development/study-hub/learning-resources

Manchester Academic Phrasebank
https://www.phrasebank.manchester.ac.uk/

UEfAP [Using English for Academic Purposes for Students in Higher Education]
http://www.uefap.com/