



# Consultancy project proposal - critical thinking: Organising and synthesising information

## Chapter overview

This topic will introduce you to key aspects of organising and synthesising skills. You will learn about some relevant tools such as the synthesis matrix and the materials will help you develop your critical thinking skills. Through a combination of learning materials, video resources and activities, you will develop a better appreciation for synthesis, how to organise your sources as well as how to collect your evidence in a coherent and logical manner. By the end of this topic, you will be equipped to demonstrate skills of effectively organising and synthesising research findings and use these when creating the consultancy proposal for your summative assignment. This topic aims to give you some fundamental steps which you can also build on in further studies.

## Learning outcomes

- Develop critical thinking skills for organising and synthesising information
- Apply these skills to support your research proposal

## Chapter summary

The ability to effectively organise and synthesise information is a useful tool not only in this current academic module however throughout your future studies. Being able to organise your sources will help you save time and produce more in-depth and relevant discussions. We start the topic by highlighting the concept of critical thinking and its relevance to your personal and academic life. Critical thinking should support the processes of synthesis as well as the organisation of your research findings. We shall explore a range of report verbs which will help you develop your academic writing skills and improve the quality of your arguments. The synthesis matrix will be a useful resource to organise your information, and the questioning techniques will enable you to spot similar or contradicting patterns in texts. By the end of this topic, you will have the necessary tools to organise and synthesise information.

# 1 What is critical thinking?

'Critical thinking is a kind of thinking in which you **question, analyse, interpret, evaluate and make a judgement** about what you read, hear, say, or write.' (Monash University, 2023)

It comes from *kritikos* meaning "able to judge or discern"

Where can you apply critical thinking?

Being critical is more than merely pointing out flaws. Making logical decisions requires evaluating data from multiple sources. Your analysis may lead you to conclude that a certain piece of evidence is not reliable or that you disagree with the conclusion, but you should be able to explain your reasoning and integrate it into a larger picture of the literature. In order to formulate your own argument or stance, you must synthesise, analyse, and assess the knowledge you have gained. Every subject and area, including the arts, humanities, science, and engineering, benefits from critical thinking. Although the kinds of evidence used to support arguments may range greatly, the methods and strategies are often the same (Institute for Academic Development, 2024).

Considering our information sources is more crucial than ever in this age of 'alternative facts'. By asking questions about motive and purpose, critical thinking entails probing past the apparent surface problems. Being critical necessitates not just gathering pertinent facts and information but also closely examining it and challenging its authority and dependability. Do consider the below questions:

**Who did it?** One important consideration is who has supplied the information. It is impossible to deny the fact that everyone has a point of view or perspective. We can better analyse someone's work and comprehend why they are saying things and what they are saying, when we are aware of their history, point of view, and even prejudices. **For what reason?** One key question is why something has been written or said. Every piece of information that is offered to us these days has a specific function. We can determine whether or not the material is useful to us by understanding the reasons behind the writing and determining the underlying motivation of the author or producer.

**What proof is used to support the information?** It's essential to enquire about the underlying assumptions of what is being said when reading a book, watching TV, or listening to instructors. Just because someone says something doesn't mean we should trust it; we should find out why they are saying it; otherwise, it's just gossip. This is frequently the case with newspaper articles, which make assertions with little or no supporting data. **When?** The historical context of a piece of information is important, particularly in rapidly developing sectors like information technology.

**Where?** Geographical location is frequently a main component. The type of information supplied and how it is presented are influenced by the place of creation. For instance, developed and

underdeveloped nations will have very different approaches to healthcare challenges. Countries differ greatly in their views on religion, the law, and society.

**For whom?** When assessing the importance and value of a presentation of information, the target audience will be a crucial consideration. The young and the old, men and women, various political and socioeconomic groups, and so forth are all distinct audiences for writers. While some works of literature or media are intended for a broad audience, others are targeted at a specific demographic. Some information is designed to meet the demands of specialists, teachers, and students, while others are created for easy consumption by those with little education. Asking whether your source material is pitched at the right level is key when researching (University of Greenwich, 2023).

Universities teach critical thinking, but their primary goal is to better prepare you to comprehend the world, make sense of the abundance of information at your disposal, and to help you think more analytically. We take essential actions on a daily basis. We don't just believe rumours and unreliable information, and we shouldn't believe everything we see on TV or in the media as factual and authoritative. Asking why people say things to us, whether they are from the government, our friends, or the advertising sector, is essential in our daily lives. Not everything we read, hear, or see should be taken at face value (University of Greenwich, 2023).

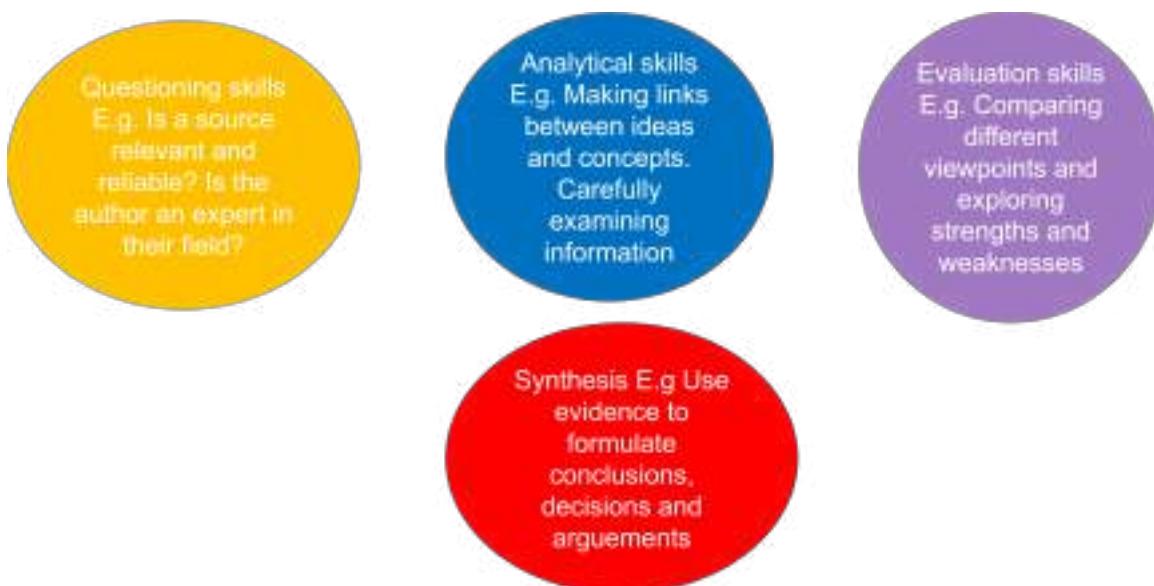
## 1.1 A few practical examples

Critical thinking in your daily life

- Choosing where to go on holiday
- Deciding where you invest your savings
- Buying a house
- Choosing between career options
- Evaluating news
- Resolving a conflict
- Deciding who to vote for

Whether you realise it not, you already practice critical thinking in your life. When you choose a destination for your holiday, you compare and contrast different options and try to see the pros and cons of your selections. Similarly, when you decide where to invest your savings, you would look at a wide range of credible sources to explore numerical figures and data and base your decision on evidence.

## 1.2 Critical thinking skills



(Source: Adapted from Monash University, 2023)

When you practice questioning skills, you ask whether the source is relevant and reliable. Because the academic paper was recently published by a subject-matter expert and the author's conclusions were generated using the most trustworthy methodology, you might choose to integrate it in your assignment. Asking analytical questions mean that you make links between ideas and concepts. You might consider every aspect of a business challenge and try to look at these from different perspectives. Evaluating means comparing different view points and examining carefully the pros and cons. You should use synthesis to formulate your own arguments and conclusions. We shall be exploring synthesis in more detail in this topic.

### 1.3 What is synthesis?

'Synthesis takes assertions (statements that describe your claim), evidence (facts and proof from outside sources), and commentary (your connections to why the evidence supports your claim), and blends these processes together to make a cohesive paragraph.' (University of Illinois Springfield, 2024)

When combining another author's ideas with your own, using the [evidence cycle](#) can help make sure your points are being adequately argued. Synthesis takes assertions (statements that describe your claim), evidence (facts and proof from outside sources), and commentary (your connections to why the evidence supports your claim), and blends these processes together to make a cohesive paragraph. In other words, synthesis encompasses several aspects:

- It is the process of integrating support from more than one source for one idea/argument while also identifying how sources are related to each other and to your main idea.
- It is an acknowledgment of how the source material from several sources address the same question/research topic.
- It is the identification of how important factors (assumptions, interpretations of results, theories, hypothesis, speculations, etc.) relate between separate sources.
- It is the process of determining the relationships between disparate sources of significant elements e.g. assumptions, interpretations of outcomes, theories, hypotheses, speculations (University of Illinois Springfield, 2024).

Information from several sources is combined in synthesis, demonstrating that you have conducted the required research to address an issue in great detail. To comprehend and/or respond to a research issue, research entails integrating a variety of sources and identifying relationships between the sources. Your paper will "flow" and connect more effectively if your synthesis is successful in establishing connections between your ideas. By using synthesis, your publications won't appear to be a collection of several authors' copied and pasted materials (University of Illinois Springfield, 2024).

### 1.4 Why is it important?

- By combining data from several sources, synthesis demonstrates that you have conducted the required research
- Exploring links between sources helps you develop a deeper understanding of the context
- When you successfully synthesise your ideas, your assignment will "flow" and connect more effectively
- Your assignment won't appear to be disjointed if you use synthesis and the readers will be able to understand the 'story line'
- You can demonstrate reasoning and logic to your audience

Academic writing requires synthesis since it shows understanding, analysis, evaluation, and originality. By combining information from several sources, synthesis allows you to produce a unique text. Synthesis produces a new structure. Different viewpoints and supporting data about a subject will be offered by the sources. In agreement, they will be combined, while in disagreement, they will be contrasted. References must be made to the sources. Your synthesis should be flawless, demonstrating the progression of your arguments, conveying a critical assessment of the sources, and making conclusions (University of Westminster, n.d.). One way to think about synthesis is "using strategic thinking to resolve a problem requiring the integration of diverse pieces of information around a structuring theme" (Mateos and Sole 2009, p. 448).

## 1.5 How to synthesise sources?

- Combine several sources to make a coherent discussion
- Show how different perspectives compliment or contrast one another
- Provide a balanced viewpoint, including positive and negative effects
- Make sure that the discussion is connected to the research question(s), aim, objectives
- Do not just summarise the findings one by one. Weave them into a coherent and logical argument.

How to get started? Decide which topics or issues you want to talk about. These concepts may be found in the books/ articles you are reading. Look for details about the topics or themes you want to talk about in each text. Find out how this text relates to other texts. Is it consistent with other sources? Is its point of view different? Does the evidence for it stand up? Write your synthesis in a way that suits you. Combine sources that express the same idea; separate sources that offer opposing views or ideas. Always include the references (University of Westminster, n.d.)

In the consultancy proposal, you need to combine a wide range of sources from carefully selected and credible sources. Your task will be to use these sources to create coherent and clear discussions. It is key that you aim to create balanced discussions, outlining some of the benefits and limitations. Your discussion needs to be directly connected to earlier parts of the proposal to make a logical and well-connected 'story' line. You would need to weave all the viewpoints into an evidence-based conclusion.

## 1.6 Organising and synthesising research findings

Direct link to the video can be found at <https://www.youtube.com/watch?v=Ei-EuydsYWQ>

One important academic skill that is essential to the calibre and depth of writing at the university level is the ability to synthesise texts. In the academic setting, synthesising is the process of combining data from several sources to create original ideas or viewpoints. It is a sophisticated ability that entails comparing, contrasting, and integrating ideas in a meaningful way rather than merely summarising or paraphrasing others' thoughts. Producing writing that is insightful requires this skill. Synthesising is the process of combining different sources into a single written work that is frequently shorter than the sum of the original resources.

There are two main applications for synthesising in academic writing. The first is to show that different authors agree. For instance, a student writing about a particular subject, like the usage of social media in protest movements, may come across a number of academic works that all support the idea that social media is a helpful tool for activists. Instead of merely outlining each author's position separately, you can integrate various viewpoints into a cohesive paragraph. By doing this, you can demonstrate not only that you have read a variety of sources but also their ability to recognise and compile related points of view and present them in an understandable and succinct manner.

The process of synthesising not only shows understanding but your capacity to relate and contrast scholarly viewpoints to create a cohesive story that strengthens a larger point. In order to connect the concepts and make sure the paragraph flows, your voice is essential in this type of writing. Citations can even be rearranged to fit the writing's structure and flow; depending on the desired style, they can be included at the conclusion of the paragraph or interwoven throughout.

But not every academic literature will have the same points of view. Thus, a second significant function of synthesis is to demonstrate disagreement or divergent opinions among many authors. Referring back to the example of social media in protest movements, the speaker presents two further sources that contest social media's applicability in this situation. You can create a more complex discussion by contrasting these texts with those that defend social media's function. In addition to enhancing the analysis, this method captures the complexities of real-world problems, where there is frequently little agreement.

Writing clearly and coherently becomes even more important when synthesising opposing viewpoints. Employing transitional words like "however" to indicate a change in viewpoint can be helpful. Such language clues draw attention to the variations among the sources and assist the reader in following the writer's argument. Once more, your remarks are important in tying the different concepts together to form a logical and well-rounded argument.

Synthesis is a critical and creative process in addition to being a mechanical one. You should actively interact with their reading, evaluate the connections between various sources, and use those connections to support their own claims. Additionally, synthesising promotes higher order thinking and writing that goes beyond description to include analysis and evaluation. Students are able to exhibit autonomous thought and academic maturity through synthesising. Since a thorough comprehension of each source is necessary for efficient synthesis, developing this skill starts with taking thorough and structured notes while reading.

(Source: The above summary is adapted from Specht, 2021)

## 1.7 What improvements would you suggest?

Social media include web-based tools which have been applied to a different applications (Lee, McLoughlin, 2010).

Social media is very popular today. People use it for different reasons like staying in touch with friends, sharing pictures, and watching videos. According to Holt-Lunstad et al. (2010), social media have been identified as a crucial instrument for network development and social bonding because of the significance of social connections in human survival.

Businesses use social media to promote their products. Social media marketing helps them reach a wide audience. Influencers are also important. Social media can help increase sales. It can also help companies understand what customers want (Tuten & Solomon, 2018).

Some people say social media is bad because it can cause addiction. Others say it spreads fake news and can harm mental health.

But social media also help people feel connected.

The above is an example of synthesis. Take a look at the text. Can you note any issues and improvement points? Here is the advice I would give to this student who produced the above example:

The writing should be more coherent and clear. First, look at any formatting issues and grammatical mistakes in the text, like using "contend" instead of "content." Don't just list the authors' findings; instead, make connections between them and investigate their relationships. Make sure that every statement is supported by evidence, such as the concept that CSR can improve a business' situation. Additionally, to demonstrate a deeper understanding of the subject matter, try to incorporate critical analysis rather than merely description. Lastly, enhance the discussion's flow to make the writing more engaging.

## 2 Reporting verbs

Affirm Respond Contend Emphasise Argue Disagree Deny Acknowledge Imply	Find Reveal State Mention Indicate Add Remark Discuss Report	Admit Propose Highlight Suggest Hold Convey Observe Outline Critique
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(Adapted from EAP Foundation, n.d.)

When you paraphrase or quote from academic literature, **reporting verbs assist you in introducing the concepts or words of others.** They always include a reference and show where

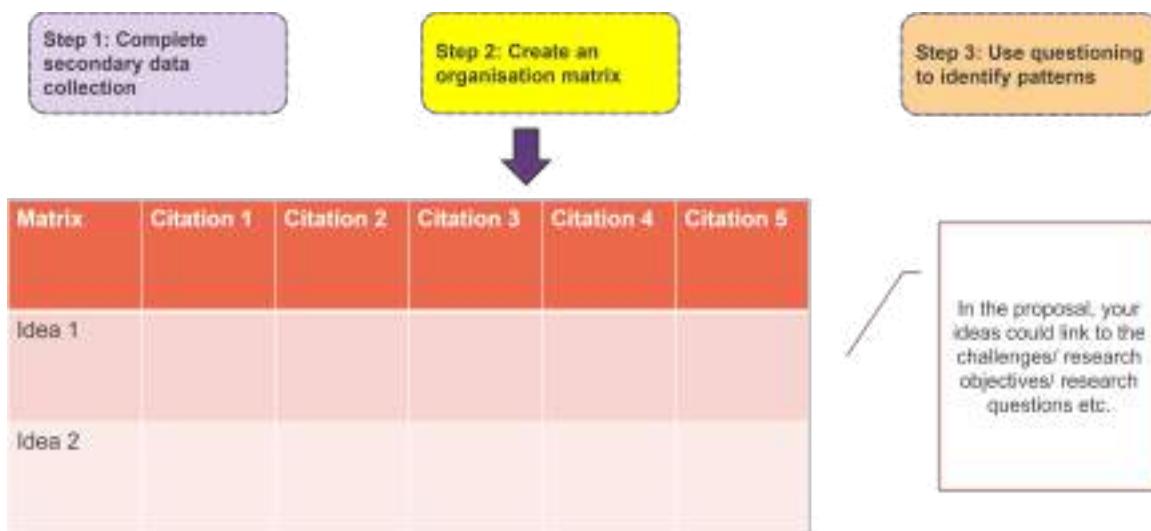
you are using other people's work to support your own claims. They also highlight your significant contribution by indicating your position (agree, disagree, etc.) on the scholarship you are summarising. You'll notice that some reporting verbs may be employed to express multiple stances depending on the situation (Newcastle University, 2025).

They are necessary to link the information you are citing to the in-text citation. The reporting verbs "note" and "highlight" are bolded in the following examples: -Sharpling (2012) **notes** that the meaning of reporting verbs varies slightly. -University of Adelaide (2014) **highlights** that it is monotonous and repetitious to consistently use the same reporting verb.

State is the most frequently used reporting verb. Even though using the same verb repeatedly is easier, it won't provide any variation to your work. Additionally, depending on what the author you are referencing is saying, each reporting verb has a slightly varied meaning. Therefore, depending on the information you are referring, it is crucial that you understand and attempt to employ a variety of reporting verbs. Keep in mind that using reporting verbs in the past or present tense is typically permissible. The present tense is more frequently used because it brings the earlier study into the present, making it more significant and up-to-date (EAP Foundation, n.d.).

University academic writing typically calls for you to assess academic concepts and draw from a variety of information sources. Reporting verbs are a useful tool for this. Reporting verbs allow you to express your thoughts about other people's ideas: a belief that the literature is correct (stronger attitude), a neutral attitude regarding content of the literature (i.e. neither correct nor incorrect - neutral viewpoint), a weaker position is the conviction that the literature is inaccurate (University of Technology Sydney, n.d.).

## 2.1 Organising and synthesising Information



Creating a synthesis matrix will help to organise your work and to deliver good quality synthesis. Select one or two ideas – these could be linked to your selected challenges in the proposal, the research aim, objectives and research questions. Once you have researched some sources which you can organise around the ideas, add the sources in the relevant table.

The following is a summary from The University of North Carolina (2022):

In academic writing, the ability to synthesise information from multiple sources is a critical skill that enhances both the quality and clarity of scholarly work. Synthesis goes beyond summarising individual texts; it involves combining information, identifying relationships among ideas, and constructing new understanding. One practical tool for developing synthesis skills is the synthesis matrix, a structured method for organising research findings and drawing thematic connections. Based on the writer's detailed use of a synthesis matrix throughout their research process, it becomes clear that synthesis provides numerous benefits—including improved organisation, deeper critical thinking, efficient note-taking, and clearer writing.

One of the most immediate benefits of synthesis is that it encourages deeper engagement with the research material. Rather than simply recording what each source says, synthesis asks the researcher to make connections between sources—comparing perspectives, contrasting findings, and identifying overlapping themes. In the case of the writer who uses a synthesis matrix, this process begins with freewriting topic ideas and generating keywords. This early stage of synthesis allows the writer to develop a focused line of inquiry that guides their research, showing how synthesis can support idea development from the very beginning of a project.

The synthesis matrix also offers significant advantages. By creating a structured spreadsheet in Excel, the writer is able to categorise information from various sources systematically. Each row may contain a different source, complete with citation information, while each column represented a thematic category or concept relevant to the research. This format makes it easy to locate key information quickly and compare how different authors address similar issues. In effect, the matrix serves as a visual map of the research landscape, highlighting where sources agreed, diverged, or complement one another. For any academic writer, this clarity is invaluable when building a cohesive and logical argument.

Another important benefit of synthesis is its ability to make note-taking more efficient and purposeful. Instead of writing scattered or disorganised notes, the writer adds paraphrased ideas and relevant quotations into the matrix in real time, while reading through sources. This not only saves time later in the writing process but also ensures that important details—such as page numbers and key terms—are recorded immediately. As the research progresses, the categories within the matrix are refined and adjusted to reflect new themes that emerge, allowing the writer to remain flexible while still maintaining structure. This dynamic yet organised approach to notetaking is one of synthesis's strongest advantages.

Perhaps one of the most meaningful outcomes of synthesis is its impact on critical thinking. By comparing and contrasting sources within the matrix, the writer could identify patterns, tensions, and gaps in the existing literature. This process helps to develop original insights and shape the structure of the final argument. Rather than simply reporting what others say, the writer uses synthesis to evaluate the strengths and limitations of different perspectives, and to position their own argument within the wider academic conversation. This level of analysis is essential for higher-level academic writing and demonstrates a clear understanding of the topic.

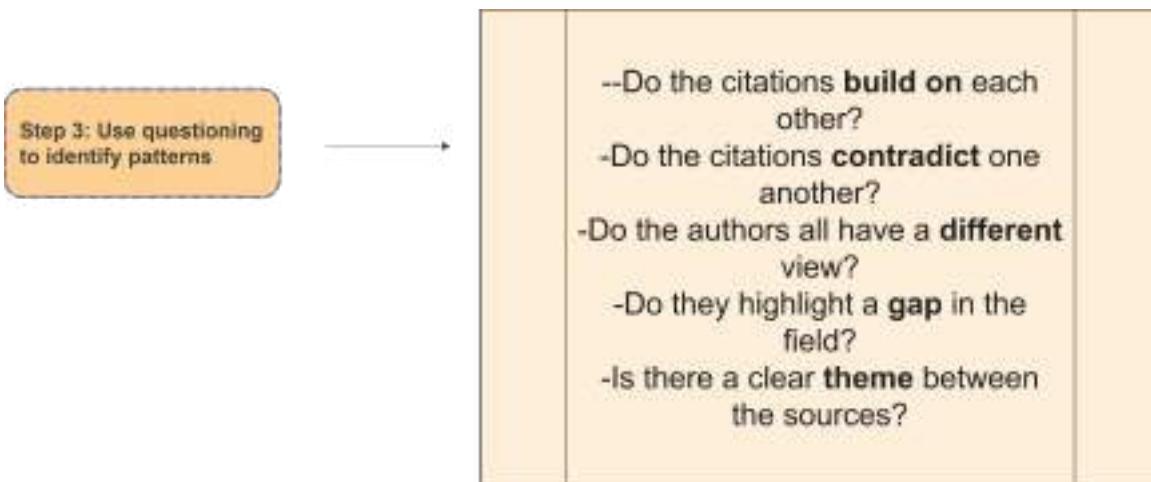
The writer's experience also illustrates how synthesis supports the transition from research to writing. Once the synthesis matrix is complete, outlining and drafting the paper becomes significantly easier. The matrix functions almost like a blueprint: colour-coded cells show where each piece of evidence belongs in the argument, and themes are already grouped in a logical sequence. This preparation makes it possible to write a ten-page paper within a few days, reflecting how synthesis can dramatically reduce the time spent on drafting by front-loading much of the analytical work.

Finally, synthesis contributes to greater clarity and cohesion in the finished paper. Since the matrix organises the content into thematic categories, the writer is able to produce a well-structured argument without needing to sift through messy or incomplete notes. The result is a polished, coherent paper that flows logically from one point to the next. This highlights one of the most practical benefits of synthesis: it simplifies complexity. By breaking down a large amount of information into manageable and meaningful parts, synthesis helps writers communicate their ideas clearly and persuasively.

In conclusion, the practice of synthesis in academic research offers a wide range of benefits that extend from the earliest stages of idea generation to the final stages of writing. Through tools like the synthesis matrix, researchers can engage more deeply with their sources, organise their findings effectively, enhance critical thinking, and write more efficiently. Synthesis not only improves the quality of academic work but also makes the research process more manageable and rewarding. For students and scholars alike, mastering synthesis is an essential step toward becoming more skilled, independent, and confident researchers.

(Source: The above summary is adapted from The University of North Carolina, 2022)

## 2.2 Questioning



(Source: Adapted from University of Sheffield, 2024)

Once you have completed some research, it can be helpful to use some questioning techniques to note whether the sources build on or contradict each other. At times, you may discover a gap in research which could be helpful to take note of. While researching, do pay attention to any themes or common patterns in the sources.

## 2.3 How to combine sources

Watch the below recording and take notes.

Direct link to the video is at <https://www.youtube.com/watch?v=ObK6J7vGnw8> (USU Libraries, 2020)

If you try to fit a piece into a space that isn't appropriate, your audience will be able to tell. Simply summarising information or even contrasting and comparing several sources is only one step in the synthesis process. Synthesising involves more than just directly quoting other writers without adding your own voice. In order to contribute to the discussion and establish your own argument, you ultimately need synthesis. Prior to successfully synthesising your research, you must determine the key discussions occurring on your subject. In order to synthesise, you must critically evaluate your research, pinpoint its main themes, advantages, disadvantages, and important gaps. You should start to see important discussions about your issue as you read article after article for your research project. Determine whatever recurring themes or subtopics are present in the articles you are reading. Your research report will be easier to organise if you take notes on these discussions or key points. Because they arrange their papers source by source, many students are unable to synthesise their study. In order to synthesise, you must arrange ideas rather than sources. To assist you choose your primary ideas, look for recurring trends in your research. What topic is being discussed in relation to the major idea? You must have examined the discussion from a variety of angles in order to truly understand it (USU Libraries, 2020).

Your research is distinct because of the materials you select, your analysis, and the way you arrange them in a useful manner. This indicates that you are gaining a grasp of the discussions around your subject and clearly articulating how they relate to your position. An effective tool for synthesis is a research matrix, which allows you to start organising by concept and include your own analysis in addition to your sources. The matrix lets you see how your sources naturally relate to one another and helps you see how people are talking about your subject. You may identify your own argument's advantages and disadvantages with the use of the research matrix (USU Libraries, 2020).

### **3 Techniques for critical thinking and information synthesis**

Based on: Monash University (2023). What is critical thinking? [online] Student Academic Success. Available at: <https://www.monash.edu/student-academic-success/enhance-your-thinking/critical-thinking/what-is-critical-thinking> [Accessed 8 May 2025].

Thinking critically involves challenging, analysing, interpreting, assessing, and forming opinions about what you read, hear, say, or write. "Critical" is derived from the Greek word "kritikos," which means "able to judge or discern." The aim of critical thinking is to base sound decisions on trustworthy data. To use critical thinking is not to be pessimistic or to focus on flaws. It means being able to make sense of your thoughts so that you can dissect an issue or a piece of information, analyse it, and then use that analysis to make a well-informed choice or judgement (for example, designing a bridge, responding to an opinion piece, or understanding a political motivation).

Although no one is born with a critical thinking mindset, those who use it frequently are said to have it. Through application and practice, these qualities can be acquired and enhanced. Arguments are most frequently linked to critical thinking in the academic setting. You may be asked to develop your own arguments or to consider others' arguments critically. Therefore, in order to improve your critical thinking skills, you must learn how to:

**1. Make your context clear.** There is an abundance of knowledge in our world, ranging in quality and applicability. Focussing on your own writing topic is essential for critical thinking in order to prevent information overload and maintain concentration on your own thought process. If you don't comprehend the important concepts and background, it is hard to critically examine a problem or subject. For instance: If you were unfamiliar with the game's rules and had never watched a basketball team play, how might you evaluate their performance? You must comprehend the pertinent ideas before you can apply them to your own study and evaluation of the subjects and issues you will be critically examining in college. If you're unable to grasp the fundamental facts or arguments, you might want to read up on the subject further or use mind mapping or brainstorming techniques to help you see the connections and structure of the concepts.

The majority of subjects/ ideas have multiple components and can be the focus of conflicting debates. You must first identify and ensure that you comprehend these various points of view before you can begin to critically analyse them. Begin by enumerating every relevant argument that has already been made in support of your topic or the many components of your issue. Following the identification of an argument, you can list other arguments in favour of or against.

**2. Examine your sources.** Not every information source is equally reliable, accurate, or applicable. You may improve your thinking skills and provide the foundation for future research and evaluation by challenging your sources. Since not all information sources are equally reliable, accurate, or relevant, challenging your sources is an essential part of critical thinking. By challenging and analysing your sources, you can: -Remove any sources that are incorrect or useless. -Choose trustworthy sources to help you focus your critical inquiry, gain a deeper comprehension of current issues and arguments surrounding your topic, and set the stage for source analysis and evaluation.

A source's author must possess the necessary expertise and authority to discuss a subject in order for it to be considered trustworthy. This indicates that the author possesses the necessary credentials and affiliations, as well as the expertise in the field of study. It is possible to determine whether an author is an amateur enthusiast, an expert in the field, or someone who has no prior schooling or specialised knowledge of the subject by looking at their qualifications.

Because complicated problems require varied approaches, strategies, and solutions, keep in mind that subject-matter specialists do not always agree with one another. Academic debates typically take into account a variety of arguments before providing a logical response or synthesis.

Therefore, you do not have to share the writers' opinions when you challenge your sources. In order to study and assess the sources and produce your own response or synthesis of ideas, you must make sure they provide something of value.

**3. Determine the arguments.** You can spot an argument whenever someone is attempting to prove anything or convince someone else to agree with them. One of the most helpful critical thinking abilities you will have as a student is the capacity to recognise arguments.

Any claim or statement backed up by evidence is an argument. Arguments range from extremely basic ('You should carry an umbrella, because it looks like it might rain') to very complicated (e.g., a new scientific hypothesis or a change in the legislation). There are arguments everywhere. You can see an argument if someone is attempting to prove something, offer a viewpoint, or influence another person to agree with them. Arguments for attention and influence are plentiful in news organisations, social media, and scholarly sources.

Compared to arguments used in the media and in casual interactions, academic arguments are more formal and comprehensive. They utilise detailed reasoning to back up their statements, express them in formal academic language, and provide available evidence. Additionally, academic arguments are typically more intricate than regular debates. In academic debates, evidence can be rather broad and typically comes from a variety of credible sources as well as research.

**4. Analysing arguments and sources.** Analysing something entails a thorough examination, explanation, and interpretation. You should be able to analyse sources, arguments, theories, and procedures and describe how they function in order to engage in critical thinking. The interaction of evidence, reasoning, assumptions, techniques, claims, and arguments must also be examined, interpreted, and explained in order to perform a good analysis.

Analysis is an essential first step in the critical thinking process, followed by assessment. Thorough research guarantees that your judgement is based on knowledge and facts rather than hunches or flimsy logic. Gaining proficiency in analysis will improve your comprehension of how the authors of your sources make arguments, use evidence, and handle difficulties. Finding trends, patterns, and gaps in your sources or current research will also be made easier.

**5. Consider other people's arguments.** The advantages and disadvantages of your sources and the arguments they make should be taken into account and explained in your evaluation. You must be able to assess arguments, the supporting evidence, and the logic that ties it all together. You can assess the quality, value, and relevance of sources and arguments when you evaluate them. You weigh their advantages and disadvantages in relation to the analysis you're completing or a specific situation. Analysis supports evaluation. Analysing your sources lets you see how they function by dissecting them into their constituent elements. Evaluation then determines the quality, value, or significance of each component part as well as the source as a whole. Evaluation can quickly become skewed or defective in the absence of analysis. One of the most important critical thinking abilities is evaluation. Analysing other people's arguments will help you become a more critical thinker and create arguments that are more compelling and well-developed.

**6. Construct your own arguments.** Developing your own claim while combining statements, reasoning, and evidence is the process of creating arguments. Synthesis, which translates to "placing things together," is another term for developing arguments. You can combine the knowledge gained from your analysis and evaluation to develop arguments. You also think about the new insights that critical thinking may offer, as well as how it might be applied in a wider context.

The following qualities should be present:

- A well-written argument that shows your readers that your argument is well-researched, logical, balanced, and convincing

- a logical structure that links your main claim with other claims and counter-claims made in your argument;
- evidence that backs up the claims made in your main claim or argument

- clear reasoning that links evidence and claims (including counter-claims) made in your argument

- reasoning that indicates you have examined and assessed your sources

The below steps will help you develop arguments:

- Create your primary argument. Writing a claim, a hypothesis, or a statement on a topic can be your first step. This could be based on the results of an experiment or your evaluation of the insights produced by the writers in your references.

**Gather your arguments and supporting documentation.** Both the arguments and supporting data for and against your main statement should be taken into account. You must create a synthesis of how your core claim aligns with other viewpoints, statements, arguments, and supporting data in order to accomplish this.

**Organise your argument.** Determine the major ideas and corroborating arguments that your main argument is based on. Next, ascertain the structure of each line of reasoning. Since you must put together claims, arguments, and supporting evidence to make a logical and cohesive argument, this process might be likened to assembling a jigsaw puzzle.

**Test and improve your statement.** Making sure that your argument covers all viewpoints on the question, issue, or problem is key once you have organised and written it. After that, stand back and think about how your reasoning might be applied in a more general setting.

### Examples of critical thinking skills

\*After reading a scholarly article, a student determines that it is appropriate to incorporate into their essay because it was written by a credible scholar and the author's conclusions were produced using trustworthy methodology. \*When someone reads an editorial in a newspaper, they discover that the author is not an authority on the subject and that the arguments they make are meant to influence the reader to support (or oppose) a particular political party.

\*When someone watches a news editorial, they evaluate each statement made by the journalist against the statistics produced by non-profit organisations, which make it plain that their goal is to present factual information on climate change.

\*In order to modify their point of view and rework their essay, a student writing a persuasive essay makes sure they have provided the other side of their argument and locates well-reasoned evidence.

\*In order to compare the arguments for and against terminally ill patients, a student reviews the literature. They present the case that federal policy is necessary and rationally relate it to a number of current scholarly works and credible official documents.

(Source: Adapted from Monash University, 2023)



### Essential reading

Monash University (2023). *What is critical thinking?* [online] Student Academic Success. Available at: <https://www.monash.edu/student-academic-success/enhance-your-thinking/critical-thinking/what-is-critical-thinking> [Accessed 6 May 2025].

Newcastle University (2025). Reporting Verbs - Academic Skills Kit - Newcastle University. [online] Available at: <https://www.ncl.ac.uk/academic-skills-kit/writing/academic-writing/reporting-verbs/> [Accessed 6 May 2025].

University of Sheffield (2024). *How to synthesise information.* [online] The University of Sheffield. Available at: <https://www.sheffield.ac.uk/study-skills/research/approaches/synthesise> [Accessed 8 May 2025].

University of Westminster (n.d.). *LibGuides: Critical Thinking and Writing: Presenting your Sources.* [online] libguides.westminster.ac.uk. Available at: <https://libguides.westminster.ac.uk/critical-thinking-and-writing/sources> [Accessed 8 May 2025].

## References

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- EAP Foundation (n.d.). Reporting verbs. [online] Available at: <https://www.eapfoundation.com/writing/references/reporting/> [Accessed 8 May 2025].
- Institute for Academic Development (2024). Critical Thinking. [online] The University of Edinburgh. Available at: <https://institute-academic-development.ed.ac.uk/study-hub/learning-resources/critical> [Accessed 8 May 2025].
- Mateos, M. and Solé, I. (2009). Synthesising information from various texts: A study of procedures and products at different educational levels. European Journal of Psychology of Education, 24(4), pp.435-451.
- Sharpling, G. (2012). Reporting Verbs. Available at: <https://www2.warwick.ac.uk/fac/soc/al/globalpad/openhouse/academicenglishskills/grammar/reportingverbs/> [Accessed 8 May 2025].
- Specht, D. (2021). Synthesising texts. [online] Available at: <https://www.youtube.com/watch?v=Ei-EuydsYWQ> [Accessed 6 May 2025].
- The University of North Carolina (2022). How I Made My Life Easier By Using A Synthesis Matrix - Writing and Learning Center. [online] Writing and Learning Center. Available at: <https://writingandlearningcenter.unc.edu/2022/03/synthesis-matrix/> [Accessed 8 May 2025].
- University of Adelaide (2014). Verbs for Reporting. Available at: <https://www.adelaide.edu.au/writingcentre/sites/default/files/docs/learningguide-verbsforreporting.pdf> [Accessed 8 May 2025].
- University of Greenwich (2023). What is critical thinking? [online] University of Greenwich. Available at: <https://www.gre.ac.uk/articles/ils/critical-thinking> [Accessed 8 May 2025].
- University of Illinois Springfield. (2024). Synthesizing Research. [online] Available at: [https://www.uis.edu/learning-hub/writing-resources/handouts/learning-hub/synthesizing-research?utm\\_source](https://www.uis.edu/learning-hub/writing-resources/handouts/learning-hub/synthesizing-research?utm_source) [Accessed 6 May 2025].
- University of Sheffield (2024). How to synthesise information. [online] The University of Sheffield. Available at: <https://www.sheffield.ac.uk/study-skills/research/approaches/synthesise> [Accessed 8 May 2025].
- University of Technology Sydney (n.d.). Reporting verbs. [online] Uts.edu.au. Available at: <https://www.uts.edu.au/for-students/current-students/support/helps/self-help-resources/grammar/reporting-verbs> [Accessed 8 May 2025].
- University of Westminster (n.d.). LibGuides: Critical Thinking and Writing: Presenting your Sources. [online] libguides.westminster.ac.uk. Available at: <https://libguides.westminster.ac.uk/critical-thinking-and-writing/sources> [Accessed 8 May 2025].
- USU Libraries (2020). Research Synthesis. YouTube. Available at: <https://www.youtube.com/watch?v=ObK6J7vGnw8> [Accessed 8 May 2025].