



Note-taking for critical thinking

You can use notes to do more than collate and organise information. You can also start to think and write critically using your notes.

Critical thinking is an important aspect of academic work. Stated simply, critical thinking involves actions such as questioning and evaluating information, and reading different viewpoints about issues and forming your own conclusions. For more information about critical thinking, see the [Critical thinking](#) information sheet.

You can choose a note-making system designed to help you to think critically about the information you read or view.

Some fundamental characteristics of a note-making system that helps you to think critically are that it helps you:

- Question and evaluate information
- Ask and answer questions about different aspects of the topic (e.g. who, what, why, how)
 - Form your own conclusions after reading different viewpoints about issues
 - Look at theory and how it relates to practice

A note-making system for thinking critically also helps you to organise information so you can compare what different sources say about topics. For example, comparing different viewpoints about issues, or comparing research findings about a similar research topic.

An example of a note-making system to help you think critically is the 'three-column note-making system'. You can choose any system that suits you, which also helps you to think and write critically about information from sources.

The three-column note-making system

The three-column note-making system is designed to help you to think and write critically about your sources.

It helps you to organise your information and take referencing details. For critical thinking, it helps you to start asking and answering questions about the information you are making notes about.

The system is structured in three columns, each with a different purpose.

Source (Where you found it)	Notes (What they say)	Comments (What I say about what they say)
<p>Put referencing information here. Include author, title, date.</p> <p>Formatting the reference correctly in this column helps you to paste it into your reference list later.</p>	<p>Write summaries and paraphrases of key points that will help you to answer your assignment questions, or that are closely related to your topic.</p> <p>Include selected quotations. Make sure you use 'quote marks' and give page numbers for all quotations.</p>	<p>Write down your thoughts and comments about the information you have read. You could comment about:</p> <ul style="list-style-type: none">→ Any questions you have about the topic, and any answers that your reading can give you to those questions→ How the information helps you answer assessment questions→ Links between the text and other sources you have used (e.g. other authors who have agreed or disagreed with that perspective on the topic)→ Points you don't understand, points you don't agree with.

The following pages show an example of a three-column note-making system in use. You can see that in the example, the three-column notes have been used to construct an analytical paragraph. The example analytical paragraph shows what critical thinking and writing can look like in an assignment.

Using a three-column note-making system: Example

Source (Where you found it)	Notes (What they say)	Comments (What I say about what they say)
Hendricks, M., & Quinn, L. (2000). Teaching Referencing as an Introduction to Epistemological Empowerment. <i>Teaching in Higher Education</i> , 5(4), 447-457. http://dx.doi.org/10.1080/713699175	Referencing appropriately in assignment work is an important way for students to show their academic learning. This is because appropriate referencing allows markers to observe how well students are able to create in writing a synthesis of their own thinking and the evidence they find in research sources. (paraphrased from p. 448)	Q) Why is it so important for students to create this synthesis in their academic writing? What does this say about the nature of academic learning at uni? A) The combined claims of Uemlianin, Wenger, Hyland and Woodward-Kron suggest two important aspects to the academic learning that students are expected to achieve through using sources in their writing: → One is developing an understanding of the ideas of researchers working in the academic field or discipline by writing about those ideas. → Another is developing the ways of thinking, researching and writing that allow students to begin participating in the intellectual projects of the academic field or discipline.
Uemlianin, I. (2000). Engaging Text: Assessing paraphrase and understanding. <i>Studies in Higher Education</i> , 25(3), 347-358. http://dx.doi.org/10.1080/713696160	It is not so much that the ability to paraphrase ideas follows from a prior understanding of those ideas. Rather it is that ideas are understood or absorbed through the process of paraphrasing. (paraphrased from p. 347)	
Wenger, E. (1998). <i>Communities of practice: Learning, meaning, and identity</i> . Cambridge, U.K.: Cambridge University Press.	Learning takes place at a social level through participation in 'communities of practice' the shared learning of participants working towards common goals translates over time into shared practices. These 'ways of doing' may eventually become defining features of the community. (paraphrased from p. 1)	Q) Is an academic discipline (e.g. psychology, biology, law, humanities, marketing) similar to Wenger's idea of a 'community of practice'?
Hyland, K. (1999). Academic attribution: Citation and the construction of disciplinary knowledge. <i>Applied Linguistics</i> , 20(3), 341-367. https://doi.org/10.1093/applin/20.3.341	The practices of citation or referencing employed in academic disciplines support the ongoing discussion of research knowledge undertaken by the members of that community. (paraphrase of main argument in article)	A) Hyland seems to think so. Plus he views citation practices as a defining characteristic of academic disciplines/communities.
Woodward-Kron, R. (1999). Learning the discourse of the discipline: The nature of the apprenticeship. <i>HERDSA Annual International Conference</i> , Melbourne, 12-15 July, 1999.	The process of learning how to write academically at university can be understood as a kind of 'apprenticeship' to the writing conventions of the discipline (paraphrase of one of the author's main arguments in the article)	Q) How does this apply to university students? A) Following Woodward-Kron, students are 'learning the academic trade' when they apply the writing conventions valued by the academic discipline, such as appropriate use and acknowledgement of sources.

Using information from notes in the three-column system

The example below shows the first two columns of the notes from the table above, with key ideas used when writing the example analytical paragraphs in the third column. Each different colour corresponds to different authors and ideas in the notes.

Source (Where you found it)	Notes (What they say)	Using information in analytical paragraphs written from notes
Hendricks, M., & Quinn, L. (2000). Teaching Referencing as an Introduction to Epistemological Empowerment. <i>Teaching in Higher Education</i> , 5(4), 447-457. http://dx.doi.org/10.1080/713699175	Referencing appropriately in assignment work is an important way for students to show their academic learning. This is because appropriate referencing allows markers to observe how well students are able to create in writing a synthesis of their own thinking and the evidence they find in research sources. (paraphrased from p. 448)	<p>University students are expected to use sources appropriately in their academic writing not only to avoid plagiarism, but also to demonstrate academic learning in their field of studies. Hendricks and Quinn (2000) propose, for example, that markers often look at student referencing to assess how well students are able to create in writing a synthesis of their own thinking as well as the evidence they find in research sources. One aspect of the learning sought through this synthesis of ideas in writing is that students develop an understanding of the ideas of researchers working in their field of study by writing about those ideas. Most makers prefer students to paraphrase from their research sources and quote only rarely, for it is through the process of paraphrasing that ideas are fully absorbed and understood (Uemlianin, 2000).</p> <p>There may also be a second, more informal aspect of this academic learning. By applying academic citation conventions, students are also developing ways of thinking, researching and writing that allow them to participate in the intellectual projects of their academic discipline. In this way, students are gradually initiated into shared 'ways of doing' that in turn support the shared learning that occurs in an academic community of practice (Wenger, 1998). For Hyland (1999), the practices of citation or referencing employed in particular academic disciplines are a key instance of such 'ways of doing', for they support the ongoing discussion of research knowledge undertaken by the member of that community. In this sense, the expectation that university students adopts the citation practices valued by their disciplines is also an invitation to begin an apprenticeship (Woodward-Kron, 1999) in the 'academic trade' of scholarly debate within that discipline.</p>
Uemlianin, I. (2000). Engaging Text: Assessing paraphrase and understanding. <i>Studies in Higher Education</i> , 25(3), 347-358. http://dx.doi.org/10.1080/713696160	It is not so much that the ability to paraphrase ideas follows from a prior understanding of those ideas. Rather it is that ideas are understood or absorbed through the process of paraphrasing. (paraphrased from p. 347)	
Wenger, E. (1998). <i>Communities of practice: Learning, meaning, and identity</i> . Cambridge, U.K.: Cambridge University Press.	Learning takes place at a social level through participation in 'communities of practice' the shared learning of participants working towards common goals translates over time into shared practices. These 'ways of doing' may eventually become defining features of the community. (paraphrased from p. 1)	
Hyland, K. (1999). Academic attribution: Citation and the construction of disciplinary knowledge. <i>Applied Linguistics</i> , 20(3), 341-367. https://doi.org/10.1093/applin/20.3.341	The practices of citation or referencing employed in academic disciplines support the ongoing discussion of research knowledge undertaken by the members of that community. (paraphrase of main argument in article)	
Woodward-Kron, R. (1999). Learning the discourse of the discipline: The nature of the apprenticeship. <i>HERDSA Annual International Conference</i> , Melbourne, 12-15 July, 1999.	The process of learning how to write academically at university can be understood as a kind of 'apprenticeship' to the writing conventions of the discipline (paraphrase of one of the author's main arguments in the article)	

Analytical and explanatory text about the information, based on three-column system notes: 'Author's voice'

The example below shows the third column from the first example table, the 'Comments' column, which shows the ideas of the writer about the information they were reading. The other column contains the same analytical paragraphs as in the table above.

The text has been coloured to show corresponding ideas between the notes and the paragraphs. This text shows the writer's own ideas about the information they have read. This may be called the 'author's voice' and is an example of 'original thinking', or the 'author's opinion'. They have developed their opinion based on the information they have read, which is a form of critical thinking.

Comments (What I say about what they say)	Analytical paragraphs showing 'author's voice': what you say about what they say.
<p>Q) Why is it so important for students to create this synthesis in their academic writing? What does this say about the nature of academic learning at university?</p> <p>A) The combined claims of Uemlianin, Wenger, Hyland and Woodward-Kron suggest two important aspects to the academic learning that students are expected to achieve through using sources in their writing:</p> <ul style="list-style-type: none"> • One is developing an understanding of the ideas of researchers working in the academic field or discipline by writing about those ideas. • Another is developing the ways of thinking, researching and writing that allow students to begin participating in the intellectual projects of the academic field or discipline. 	<p>Issue: In what way does acknowledging sources in academic writing allow students to demonstrate their academic learning at university?</p> <p>University students are expected to use sources appropriately in their academic writing not only to avoid plagiarism, but also to demonstrate academic learning in their field of studies. Hendricks and Quinn (2000) propose, for example, that markers often look at student referencing to assess how well students are able to create in writing a synthesis of their own thinking as well as the evidence they find in research sources. One aspect of the learning sought through this synthesis of ideas in writing is that students develop an understanding of the ideas of researchers working in their field of study by writing about those ideas. Most makers prefer students to paraphrase from their research sources and quote only rarely, for it is through the process of paraphrasing that ideas are fully absorbed and understood (Uemlianin, 2000).</p>
<p>Q) Is an academic discipline (e.g. psychology, biology, law, humanities, marketing) similar to Wenger's idea of a 'community of practice'?</p>	<p>There may also be a second, more informal aspect of this academic learning. By applying academic citation conventions, students are also developing ways of thinking, researching and writing that allow them to participate in the intellectual projects of their academic discipline. In this way, students are gradually initiated into shared 'ways of doing' that in turn support the shared learning that occurs in an</p>
<p>A) Hyland seems to think so. Plus he views citation practices as a defining characteristic of academic disciplines/communities.</p>	<p>academic community of practice (Wenger, 1998). For Hyland (1999), the practices of citation or referencing employed in particular academic disciplines are a key instance of such 'ways of doing', for they support the ongoing discussion of research knowledge undertaken by the member of that community. In this sense, the expectation that university students adopts the citation practices valued by their disciplines is also an invitation to begin an apprenticeship (Woodward-Kron, 1999) in the 'academic trade' of scholarly debate within that discipline.</p>
<p>Q) How does this apply to university students?</p> <p>A) Following Woodward-Kron, students are 'learning the academic trade' when they apply the writing conventions valued by the academic discipline, such as appropriate use and acknowledgement of sources.</p>	<p>ongoing discussion of research knowledge undertaken by the member of that community. In this sense, the expectation that university students adopts the citation practices valued by their disciplines is also an invitation to begin an apprenticeship (Woodward-Kron, 1999) in the 'academic trade' of scholarly debate within that discipline.</p>

Organising ideas in your notes

Why organise notes?

Organising your notes can help you to think and write critically about the ideas of others, because it can help you to:

- Collect what you know about topics and subtopics into one place
- Compare and contrast what different sources say about a topic or subtopic
 - Develop your ideas about what is being said by others

Organise your notes by sorting them into the main themes or topics that you will be using in your assignment. Often, you can use your assignment question to work out the main themes or topics you will need to write about.

You can either simply create the notes from each source first, and then 'chunk' them, or as you get more confident, you might choose to make notes directly into the 'chunks'.

In order to 'chunk' your notes, just cut (or copy) them and paste them into the different topic 'chunks'. The next example shows notes created with the three-column system, 'chunked' into topics.

Example of notes organised using the three column system

In this example, the subtopics are 'Boundaries' and 'Fitting in'. The first column shows the sources, with referencing information. The second column shows notes from the sources: what they say. The third column contains notes and comments about the sources: what I say about what they say.

You can see that one of the sources has been used twice, but the notes have been split into two different topics.

Boundaries

Power, E. R. (2012). Domestication and the dog: embodying home. <i>Area</i> , 44(3), 371-378.	'While there are ongoing debates about the capacity of nonhuman animals to exhibit reflexivity and self-discipline, the practices outlined in this paper go some way to highlighting the dependence of domesticatory relations on some form of nonhuman self-regulatory activity' (quote from p. 377).	The nonhuman self-regulatory activity mentioned here is strongly tied to my discussion of boundaries. And the boundaries seem anchored to care practices for children. I would think that subjectivities and expectations for self-regulation anchors somewhat to representations of children. If Power's paper highlights the dependence on self-regulation by animals, then my discussion is going to explain it more fully – the practices with which people enact their representations of what subjects do within the household (and in interactions outside it).
Power, E. (2008). Furry families: making a human-dog family through home. <i>Social & Cultural Geography</i> , 9(5), 535-555.	Power says that the practice of hierarchy was made through rules that both pets and children conformed to. She mentions some participants saying that social rules make for a functioning social group – happier, less problems (p. 544). Practices include feeding dog last, keeping dog off bed, doing things after people.	What the article doesn't discuss is rules as boundaries, and the freedom to choose within the rules and boundaries. I'm looking at rules differently? I'm more looking at rules as setting limits and the learning/teaching of self-control and appropriate choices. I'm looking at it less as a pathway to dominance/submission, perhaps because of the high prevalence OF the idea of boundaries, but the low prevalence of people describing pack relations.

Fitting in

Power, E. R. (2012). Domestication and the dog: embodying home. <i>Area</i> , 44(3), 371-378.	Power discusses that dogs were disciplined in order to conform to what people wanted, they were expected to fit in with the lifestyle and home that people had. (p. 374)	This conforms to the fitting in that my participants said, they wanted dogs to fit in.
Irvine, L. (2009). <i>Filling the ark: animal welfare in disasters</i> . Philadelphia, PA, USA: Temple University Press.	Discusses Arluke and Sanders sociozoologic scale. That people 'rank animals according to a sociological hierarchy', says some animals like companion animals get 'almost human status', as long as they 'comply with the rules' and "fit" into human society' (p. 7). It's a scale that people use to give structure and meaning to the relationships they have with animals.	This appears to indicate that value is given to companion animals if the companion animal complies with the rules of the human society in which they are located in order to 'fit in' – it's the dogs that have to conform to humans.