

THESIS WRITING WEBINAR

ALL POSTGRADUATE STUDENTS ARE INVITED!

Writing a Scholarly Literature Review (Part II)

BY: Ir. Dr. Ridza Azri Ramlee (Senior Lecturer)

Cisco WebEx Meeting No.: 126 497 9339

Password: pgEss2021

6th January 2021 | 10.30 am | online: utem.webex.com



Writing a Scholarly Literature Review

Strategies for Writing
Literature Reviews

Ir. Dr. Ridza Azri Bin Ramlee
ridza@utem.edu.my.edu



linkedin



Part II

What is a Literature Review?



- A LR is a systematic and comprehensive analysis scholarly sources.
- LR are designed to **identify** and **critique** the existing literature on a topic to justify your research by **exposing gaps** in current research and **critical evaluation of works** related to the research problem and overall knowledge of the topic.
- A LR should offer **critical analysis of the current research** on a topic and that analysis should direct your research objective.
- A LR can be a stand alone element or part of a larger end product, know your assignment. Key to a good LR is to **document your process**.^[1]

State of arts. Trending, popular, top



[1] <https://uscupstate.libguides.com/c.php?g=627058&p=4373978>

The purpose of a literature review is to:

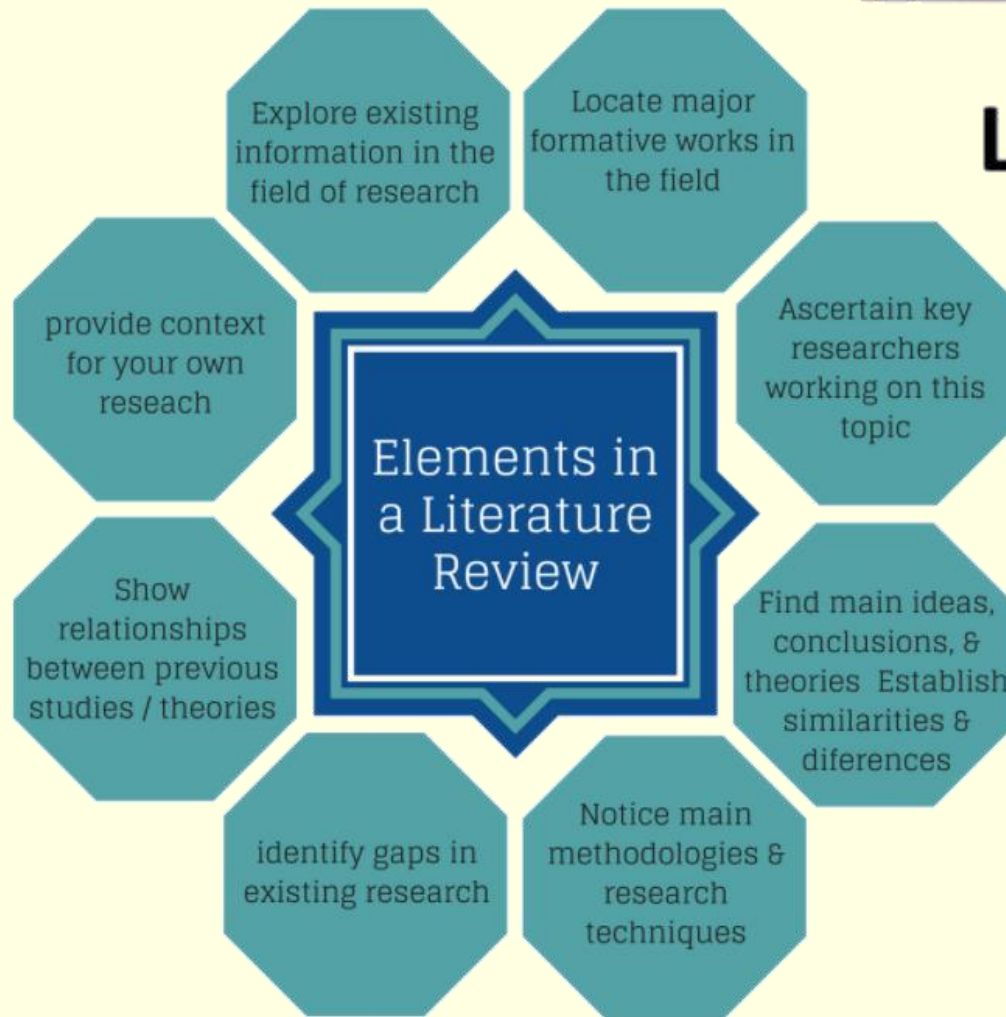


- Provide foundation of knowledge on topic
- Identify areas of prior scholarship to prevent duplication and give credit to other researchers
- Identify inconsistencies: gaps in research, conflicts in previous studies, open questions left from other research
- Identify need for additional research (justifying your research)
- Identify the relationship of works in context of its contribution to the topic and to other works
- Place your own research within the context of existing literature making a case for why further study is needed.

Elements in LR



Literature Review



Tools for citation Mendeley

Citation

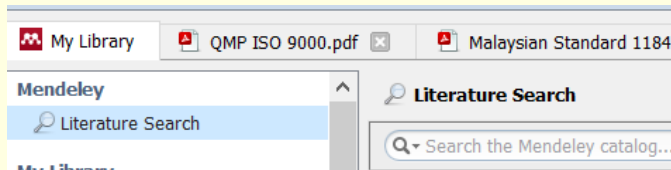
Manual Entry

Pdf to database

Doc citation styles

Tags.

Literature search



How to check the journal

- <https://www.scimagojr.com/>
- <https://www.scopus.com/search/form.uri?display=basic>
- JCR
- Example to check journal:
 - International Journal of Innovative Technology and Exploring Engineering (IJITEE) is having ISSN 2278-3075 (online)
 - **IEEE Transactions on Cybernetics (ISSN: 21682275)**

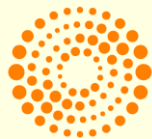
Indexed Publication



Scopus



ScienceDirect

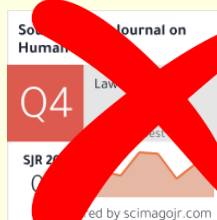
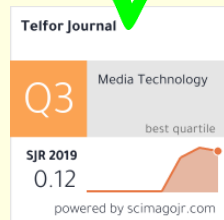
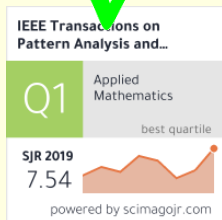


THOMSON REUTERS



ISI Web of SCIENCE.

 **Predatory Journals**

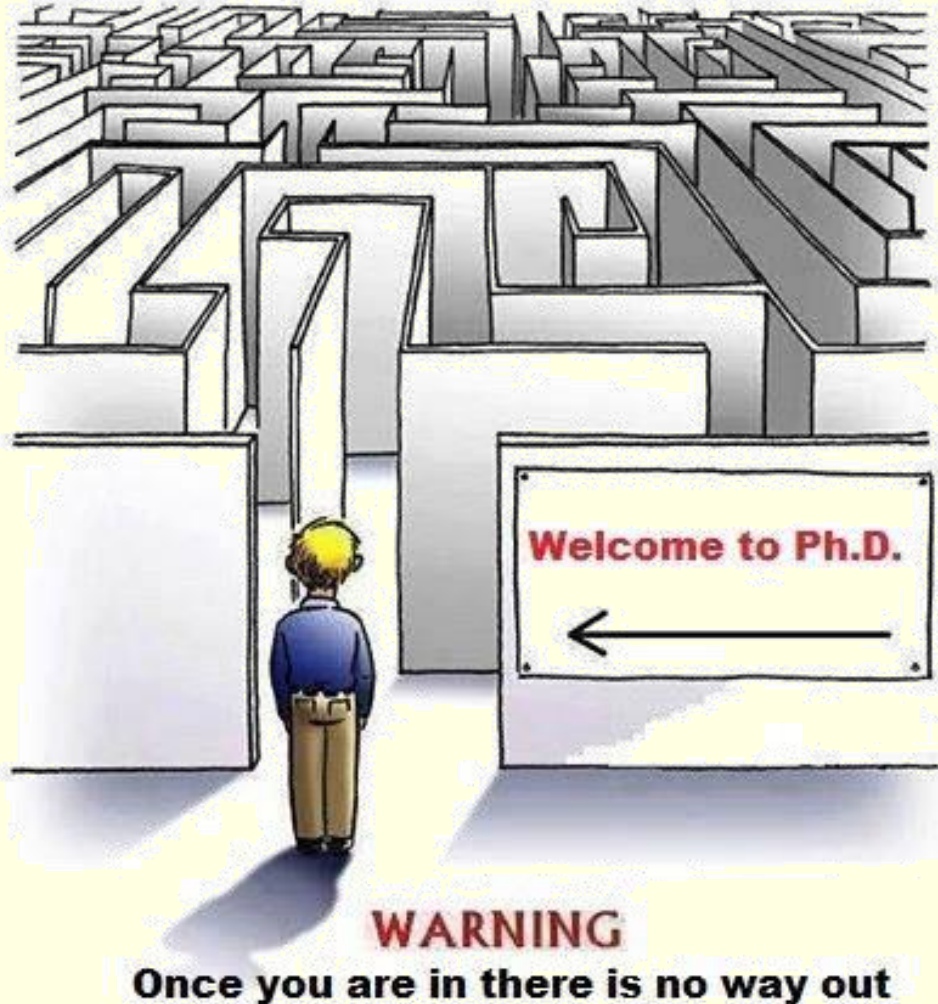


What Are Predatory Journals And Why Should We Worry?



Research Framework on Template (RFOT)

- RFOT
- RFOT Filled



ARTICLE SUMMARY TABLE & *LITERATURE REVIEW SYNTHESIS TABLE*

- Article summary table & literature review synthesis table

Make a reading log

2 Reading log

Author's name	Date of publication	Title of article/chapter		
Editor's name	Title of Book or Journal			
Place of publication		Publisher		
Volume number	Pages	Edition	Library /Call number	Reference no.
URL				
Date accessed				

(continued)

Key Words	
Description of topic	
Argument(s)	
Quotes (page nos/idea)	
Methods used	
Perspective presented	

<p>Links with other readings</p> <ul style="list-style-type: none">• similarities• differences	
<p>Strengths and weaknesses of argument(s), justify</p>	
<p>Do you agree/ disagree with ideas and why?</p>	
<p>How do the ideas relate to your life experiences /practical knowledge?</p>	
<p>What questions do the arguments/ideas raise for you?</p>	
<p>What is the relevance for your research (Why)?</p>	

Example 1 comparison table

TABLE 1: Comparisons of interest point detection, visual words generation, and learning models.

Work	Region/point detection	Local descriptor	Clustering algorithm	No. of visual words	Weighting scheme	Learning model
2012						
de Campos et al. [70]	DoG	SIFT				Logistic regression
Elfiky et al. [97]	Harris-Laplace	SIFT/HSV color + SIFT	<i>k</i> -means			SVM
Fernando et al. [68]	Harris-Laplace	PCA-SIFT/SIFT/SURF ¹	<i>k</i> -means	2000		SVM
Gavves et al. [77]		SIFT/SURF		200000		
Kesorn and Poslad [80]	DoG	SIFT	SLAC ²		Binary/TF/TF-IDF	Naïve bayes/ SVM-linear/ SVM-RBF
Lee and Grauman [103]	NCuts ³	Texton histogram	<i>k</i> -means	400		SVM
Qin and Yung [64]		Color SIFT	<i>k</i> -means			SVM-linear/ SVM-poly/ SVM-RBF
Romberg et al. [102]		SIFT	<i>k</i> -means			mm-pLSA ⁴
Shang and Xiao [99]		SIFT	<i>k</i> -means	1000		SVM
Stottinger et al. [104]	Harris-Laplace	RGB Harris with Laplacian scale selection	<i>k</i> -means	4000		SVM
Tong et al. [100]	Harris-Laplace	SIFT	AKM ⁵			

Example 2 comparison table

Table 1: The range of normal CD in the human population as found in the literature. HVID = horizontal visible iris diameter, VVID = vertical visible iris diameter, M = male, F = female, ID = indirect caliper, OCT = ocular coherence tomography, CT = corneal topography, SSCT = scanning-slit corneal topography and NR = not reported.

Author/s	Race/ Ethnicity	Method	No of Eyes	Age (years)	Gender	HVID (mm) Range	Mean±SD	VVID (mm) Range	Mean±SD
Ganguli <i>et al</i> ¹⁴ (1975)	Indians	PD ruler	100	5-53	M F	NR	11.45 11.20	NR	10.86 10.67
Baumeister <i>et al</i> ¹⁵ (2004)	Caucasians	Caliper IOLMaster Orbscan Holladay-Godwin gauge	100 100 100 100 100	NR	NR	NR	11.91±0.71 12.02±0.38 11.78±0.43 11.8±0.60	NR	NR
Rufer <i>et al</i> ¹¹ (2005)	Caucasians	Orbscan	743	10-80	M&F	10.7-12.58	11.71±0.42	NR	NR
Ashaye <i>et al</i> ⁹ (2006)	Africans (Nigerians)	ID	684	0-0.65	M&F	9-12.5	10.26±0.59	NR	NR
Kohnen <i>et al</i> ¹⁶ (2006)	Caucasians	IOLMaster Orbscan	52	NR	M&F	NR	12.17±0.45 11.84±0.41	NR	NR
Pinero <i>et al</i> ¹² (2008)	Caucasians	OCT CT	30 30	20-51	M&F	10.03-12.92 11.34-13.16	11.76±0.52 12.25±0.49	NR	NR

Example 3 comparison table

TABLE I. IMPLEMENTATION OF DIFFERENT IRIS SEGMENTATION METHOD ON 2000 IMAGES FROM CASIA IRIS-LAMP V.4

Iris segmentation method	EER	CSR	Average Time (millisecond)
Proposed algorithm	2.37%	98.9 %	581
Integro-differential operator [5]	14.25%	88.3%	4542
Circular Hough transform [6]	12.99%	90.7%	3087
Geodesic active contour [13]	4.43%	96.4%	1589
Balloon active contour [14]	5.37%	95.2%	1304
Snake active contour [17]	6.49%	93.1%	1813

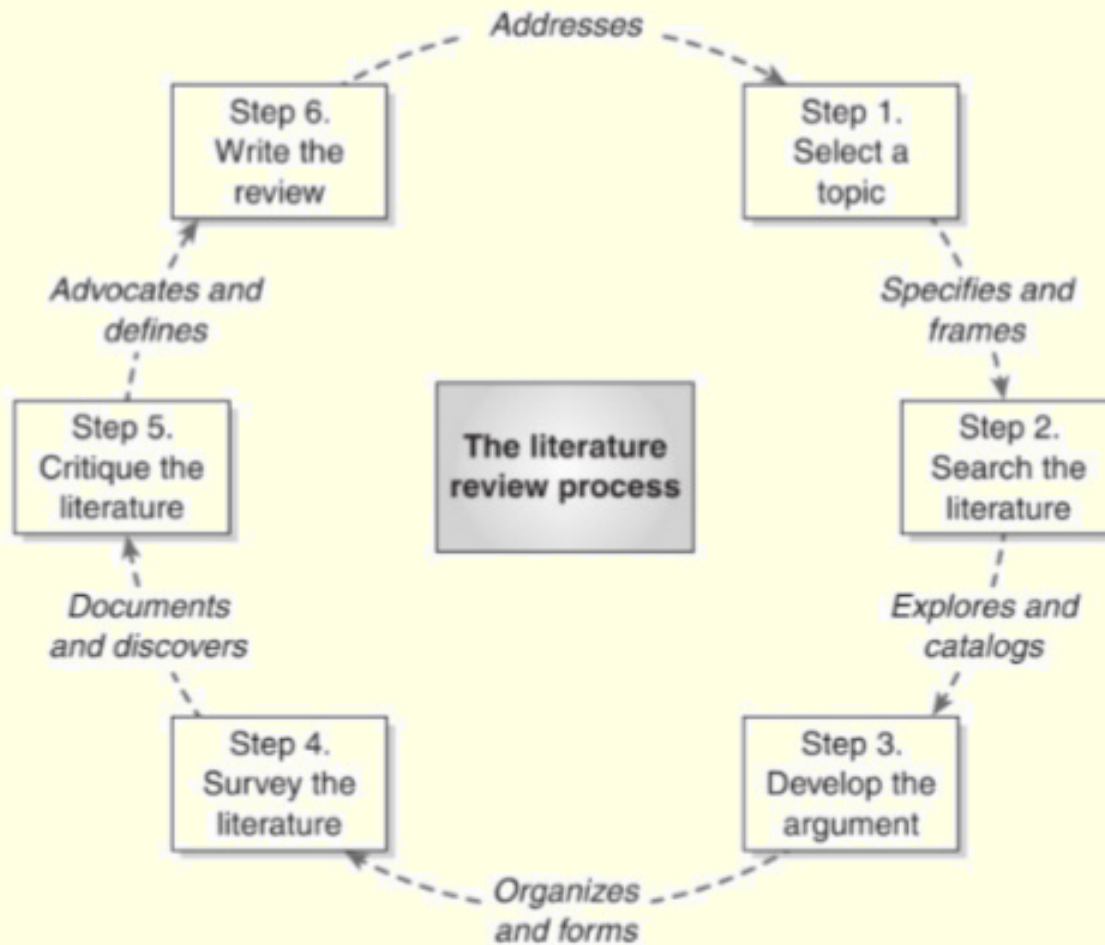
Example 4 comparison table

Table 4. Summary of IBLSE research in alphabetic order. (exp=experimental design)

Author	Purpose	Participants	Method
Artino (2008)	To investigate the relations between learners' IBLSE and their satisfaction	646 undergraduates in US	survey
Bates & Khasawneh (2007)	To propose a mediated model where a set of antecedent variables influenced students' IBLSE	288 university students in US	survey
Bolman <i>et al.</i> (2007)	To investigate the usability of the IBL system	808 unders, friends & families in Holland	exp
Chang & Tung (2008)	To add IBLSE as one of the factors to propose a new hybrid TAM.	212 undergraduates in Taiwan	survey
Choi <i>et al.</i> (2007)	To suggest an IBL success model based on flow theory	223 vocational school students in Korea	quasi-exp
Johnson <i>et al.</i> (2008)	To develop a model by adding social presence to learners' IBLSE.	345 university students in US	survey
Lee (2006)	To investigate factors affecting the adoption of the IBL through TAM	1085 university students in Taiwan	survey
Lee & Lee (2008)	Suggest a research model based on relations of IBLSE and IBL system perception	225 unders in Korea	survey
Liaw <i>et al.</i> (2007).	To explore instructors' and learners' attitudes toward IBL	30 instructors & 168 unders in Taiwan	survey
Liaw (2008)	To examine relations among learner satisfaction, IBLSE, and IBL effectiveness	424 university students in Taiwan	survey
Moneta <i>et al.</i> (2007)	To evaluate students' affective learning in IBL	414 undergraduates in Hong Kong	quasi-exp
Ong & Lai (2006).	To explore gender differences among dominants affecting IBL acceptance	156 employees in Taiwan	survey
Park (2009)	To investigate students' adoption of IBL via SEM technique with LISREL program	628 university students in Korea	survey

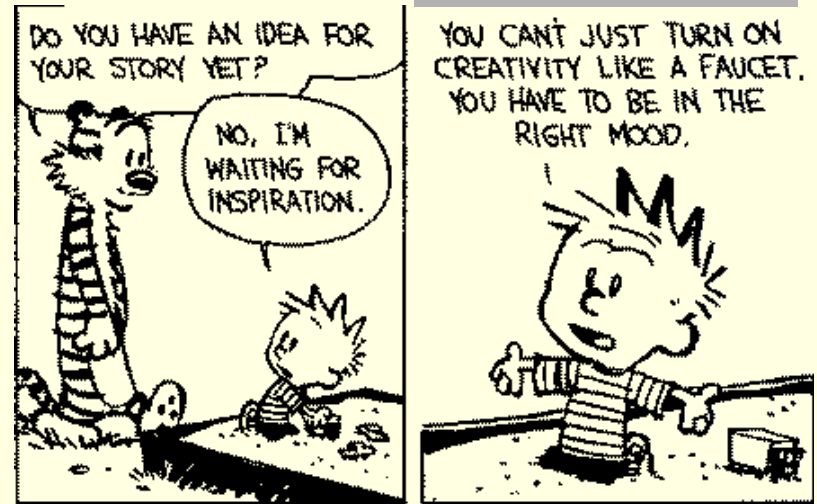
LR model

Figure I.3 The Literature Review Model



Steps for Writing a Lit Review

1. Planning
2. Reading and Research
3. Analyzing
4. Drafting
5. Revising



1.Planning



What Type of Literature Review
Am I Writing?

Planning

■ Focus

- What is the specific thesis, problem, or **research question** that my literature review helps to define?
- Identifying a focus that allows you to:
 - Sort and categorize information
 - Eliminate irrelevant information

■ Type

- What type of literature review am I conducting?
- Theory; Methodology; Policy; Quantitative; Qualitative



BANK MANAGER

What is your qualification ?



I'm a Ph.d .

What do you mean by Ph.d ?



Passed High-school with Difficulty....



Planning

■ Scope

- What is the scope of my literature review?
- What types of sources (e.g. journal, report archive) am I using?

■ Academic Discipline

- What field(s) am I working in?

2. Reading and Researching

WWW.ANDERTOONS.COM

What Materials
Am I Going to Use?



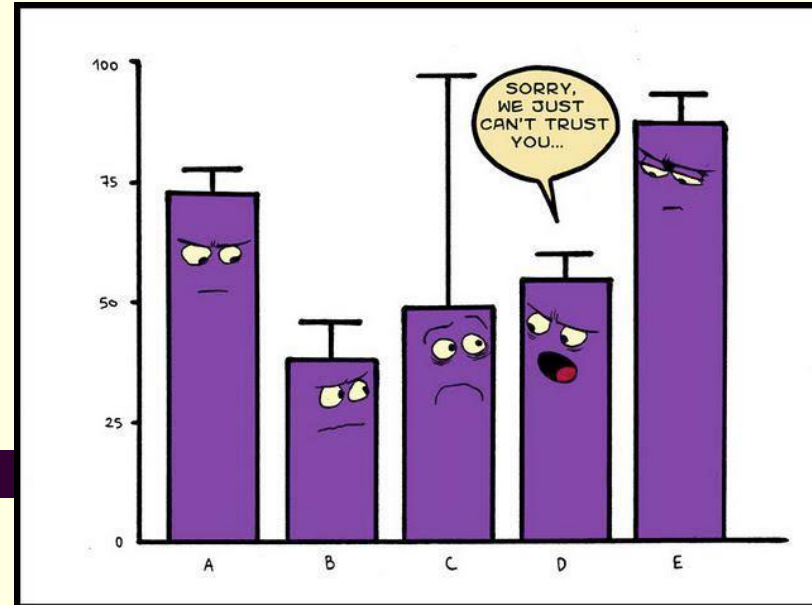
"Clearly you're smart. But are you *book* smart?"

Reading and Researching

- Collect and read material.
- Summarize sources.
 - Who is the author?
 - What is the author's main purpose?
 - What is the author's theoretical perspective? Research methodology?
 - Who is the intended audience?
 - What is the principal point, conclusion, thesis, contention, or question?
 - How is the author's position supported?
 - How does this study relate to other studies of the problem or topic?
 - What does this study add to your project?
- Select only relevant books and articles.

What are you reading for?

3. Analyzing



How Do I Assess
Existing Research?

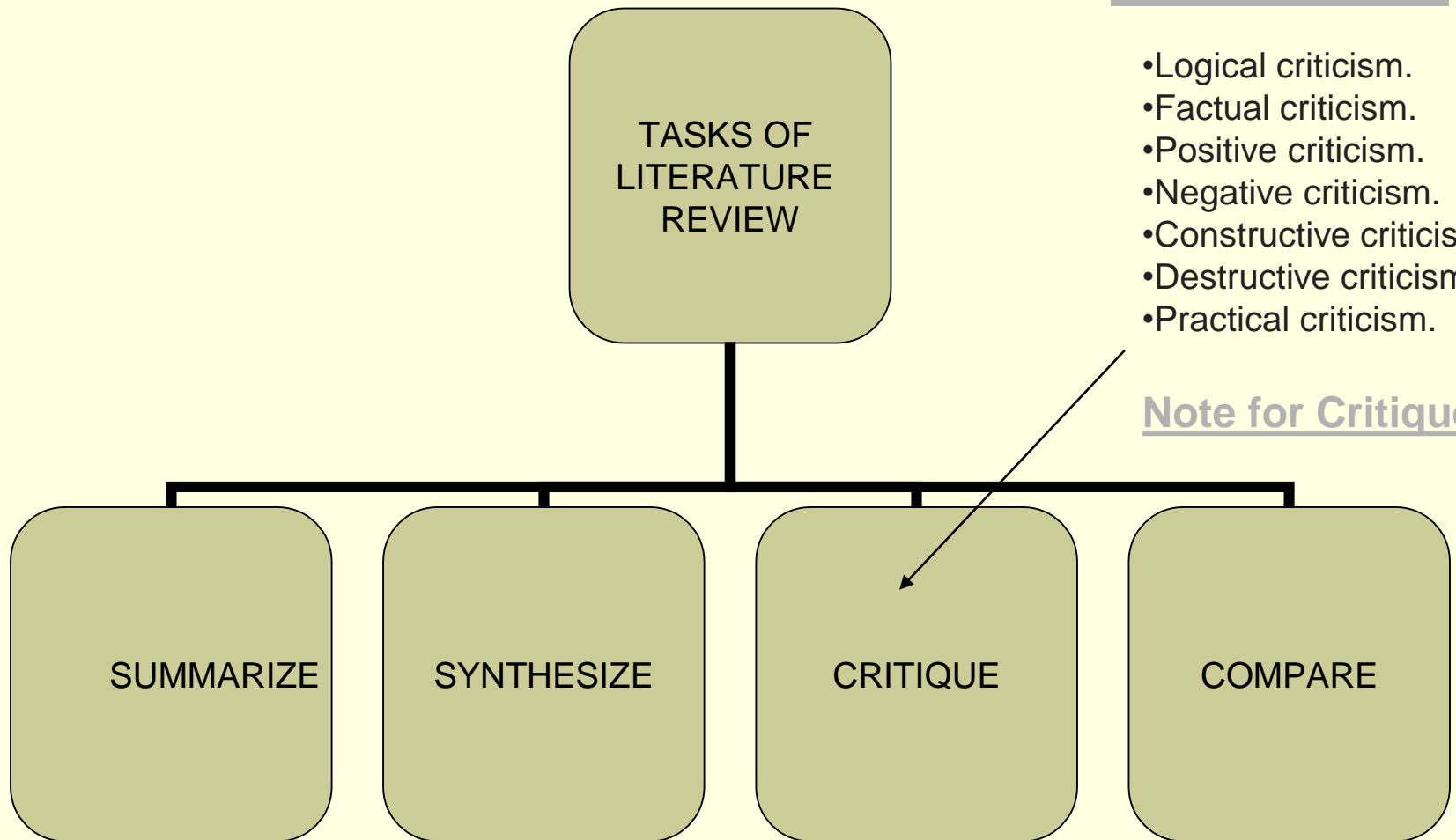
Analyzing Sources

- A literature review is never just a list of studies—it always offers an argument about a body of research
- Analysis occurs on two levels:
 - Individual sources
 - Body of research

Argument in the body of the literature review

Literature review is built up through claims supported by evidence - in this case, evidence from the literature.

Four Analysis Tasks of the Literature Review



Synthesize: Instead of summarizing the main points of each source in turn, you put together the ideas and findings of multiple sources in order to make an overall point.

Summary and Synthesis

In your own words, summarize and/or synthesize the key findings relevant to your study.

- What do we know about the immediate area?
- What are the key arguments, key characteristics, key concepts or key figures?
- What are the existing debates/theories?
- What common methodologies are used?

Sample Language for Summary and Synthesis

- Normadin has demonstrated...
- Early work by Hausman, Schwarz, and Graves was concerned with...
- Elsayed and Stern compared algorithms for handling...
- Additional work by Karasawa et. al, Azadivar, and Parry et. al deals with...

Example: Summary and Synthesis

Under the restriction of small populations, four possible ways [to avoid premature convergence] were presented. The first one is to revise the gene operators. . . .Griffiths and Miles applied advanced two-dimensional gene operators to search the optimal cross-section of a beam and significantly improve results. The second way is to adjust gene probability. Leite and Topping adopted a variable mutation probability and obtained an outperformed result.

Example: Summary and Synthesis

Most studies that used imaging methods are intended to measure and validate the relationship of UV radiation to pterygium tissue growth onto the corneal region.

However, this method can be costly because the camera sensor chips are more expensive than the ordinary digital camera. Hence,,.....

I just need
the main ideas



Comparison and Critique

Evaluates the strength and weaknesses of the work:

- How do the different studies relate? What is new, different, or controversial?
- What views need further testing?
- What evidence is lacking, inconclusive, contradicting, or too limited?
- What research designs or methods seem unsatisfactory?

Sample Language for Comparison and Critique

- In this ambitious but flawed study, Jones and Wang...
- These general results, reflecting the stochastic nature of the flow of goods, are similar to those reported by Rosenblatt and Roll...

Example: Comparison and Critique

- The critical response to the poetry of Phillis Wheatley often registers disappointment or surprise. Some critics have complained that the verse of this African American slave is insecure (Collins 1975, 78), imitative (Richmond 1974, 54-66), and incapacitated (Burke 1991, 33, 38)—at worst, the product of a “White mind” (Jameson 1974, 414-15). Others, in contrast, have applauded Wheatley’s critique of Anglo-American discourse (Kendrick 1993, 222-23), her revision of literary models...

Example: Comparison and Critique

- The situationist (narrowly) model has also received its share of criticism. One of the most frequently cited shortcomings of this approach centers around the assumption that

A Critique of Pure Reason



Evaluative Adjectives

- Unusual
- Small
- Simple
- Exploratory
- Limited
- Restricted
- Flawed
- Complex
- Competent
- Important
- Innovative
- Impressive
- Useful
- Careful

Analyzing: Putting It All Together

Once you have summarized, synthesized, compared, and critiqued your chosen material, you may consider whether these studies

- Demonstrate the topic's chronological development.
- Show different approaches to the problem.
- Show an ongoing debate.
- Center on a “seminal” (strongly influencing later developments) study or studies.
- Demonstrate a “paradigm shift.” *a pattern or model*

Analyzing: Putting It All Together

- What do researchers **KNOW** about this field?
- What do researchers **NOT KNOW**?
- Why should we (further) study this topic?
- What will my study contribute?

4. Drafting

What Am I
Going to Write?

Drafting: An Overview

To help you approach your draft in a manageable fashion, this section addresses the following topics:

- **Exigency** *an urgent need or demand*
- **Thesis Statement**
- **Organization**
- **Introduction and conclusion**
- **Citations**

Thesis Statements

The thesis statement offers an argument about the literature. It may do any of or a combination of the following:

- Offer an argument and critical assessment of the literature (i.e. topic + claim).
- Provide an overview of current scholarly conversations.
- Point out gaps or weaknesses in the literature.
- Relate the literature to the larger aim of the study.

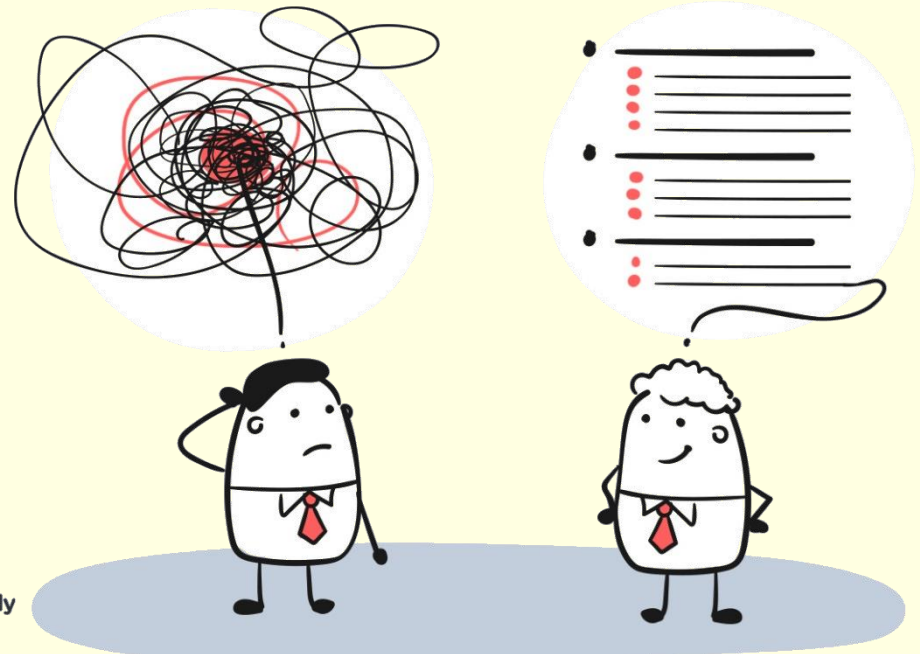
Examples: Thesis Statements

- 1) Polyvalency refers to the simultaneous binding of multiple ligands on one entity to multiple receptors on another. Polyvalent interactions are ubiquitous in nature, with examples including the attachment of viruses to target cells, bacteria to cells, cells to other cells, and the binding of antibodies to pathogens. . . . In this article, I review recent developments in polyvalency and discuss the numerous opportunities for chemical engineers to make contributions to this exciting field, whose applications include drug discovery, tissue engineering, and nanofabrication.
- 2) In this article, we review and critique scholarship on place-based education in order to consider the ingredients of a critical place-based pedagogy for the arts and humanities. . . We begin by reviewing ecohumanism's call for a more locally responsive education in light of the marginalization of place and community...

Organization

Five common approaches to organizing the body of your paper include:

- Topical
- Distant to close
- Debate
- Chronological
- Seminal Study
strongly influencing later developments



Topical: Characteristics

- Most common approach
- Breaks the field into a number of subfields, subject areas, or approaches
- Discusses each subsection individually, sometimes with critiques of each
- Most useful for organizing a large body of literature that does not have one or two studies that stand out as most important or a clear chronological development

Topical: Typical Language

- Three important areas of this field have received attention: A, B, C.
- A has been approached from two perspectives F and G.
- The most important developments in terms of B have been...
- C has also been an important area of study in this field.



Distant to Close: Characteristics

- A type of topical organization, with studies grouped by their relevance to current research.
- Starts by describing studies with general similarities to current research and ends with studies most relevant to the specific topic.
- Most useful for studies of methods or models.

Distant to Close: Typical Language

- Method/Model M (slightly similar to current research) addresses ...
- Drawing upon method/model N (more similar to current research) can help ...
- This study applies the procedure used in method/model O (most similar to current research) to ...

Debate: Characteristics

- Another type of topical approach, with a chronological component.
- Emphasizes various strands of research in which proponents of various models openly criticize one another.
- Most useful when clear opposing positions are present in the literature.

Debate: Typical Language

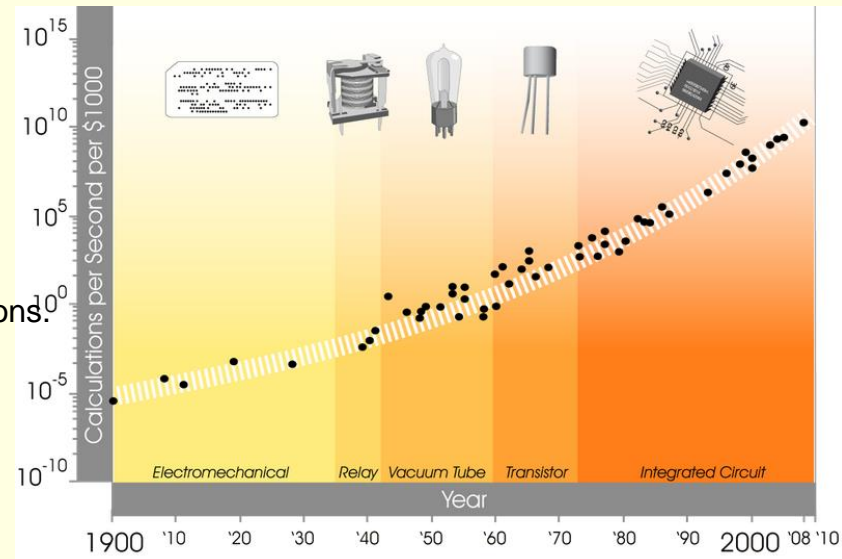
- There have been two (three, four, etc.) distinct approaches this problem.
- The first model posits...
- The second model argues that the first model is wrong for three reasons. Instead, the second model claims...



Chronological: Characteristics

- Lists studies in terms of chronological development
- Useful when the field displays clear development over a period of time
 - Linear progression
 - Paradigm shift

a fundamental change in approach or underlying assumptions.



Chronological: Typical Language

- This subject was first studied by X, who argued/found...
- In (date), Y modified/extended/contradicted X's work by...
- Today, research by Z represents the current state of the field.

Seminal Study: Characteristics

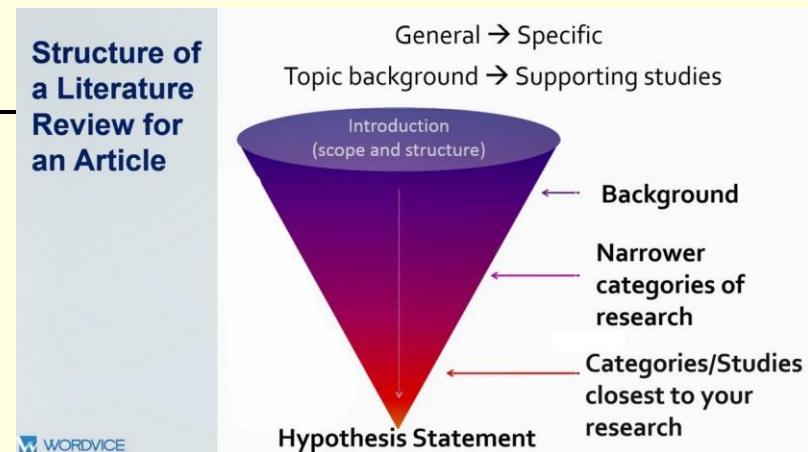
- Begins with detailed description of extremely important study.
- Later work is organized using another pattern.
- Most useful when one study is clearly most important or central in laying the groundwork for future research.

Seminal Study: Typical Language

- The most important research on this topic was the study by X in (date).
- Following X's study, research fell into two categories (extended X's work, etc.)

Introductions

- Indicate scope of the literature review.
- Provide some background to the topic.
- Demonstrate the importance or need for research.
- Make a claim.
- Offer an overview/map of the ensuing discussion.



Example: Introduction

Topic sentence - identifies five major themes as the scope of this review

Many theories have been proposed to explain what motivates human behaviour. Although the literature covers a wide variety of such theories, this review will focus on five major themes which emerge repeatedly throughout the literature reviewed. These themes are: incorporation of the self-concept into traditional theories of motivation, the influence of rewards on motivation, the increasing importance of internal forces of motivation, autonomy and self-control as sources of motivation, and narcissism as an essential component of motivation. Although the literature presents these themes in a variety of contexts, this paper will primarily focus on their application to self-motivation.

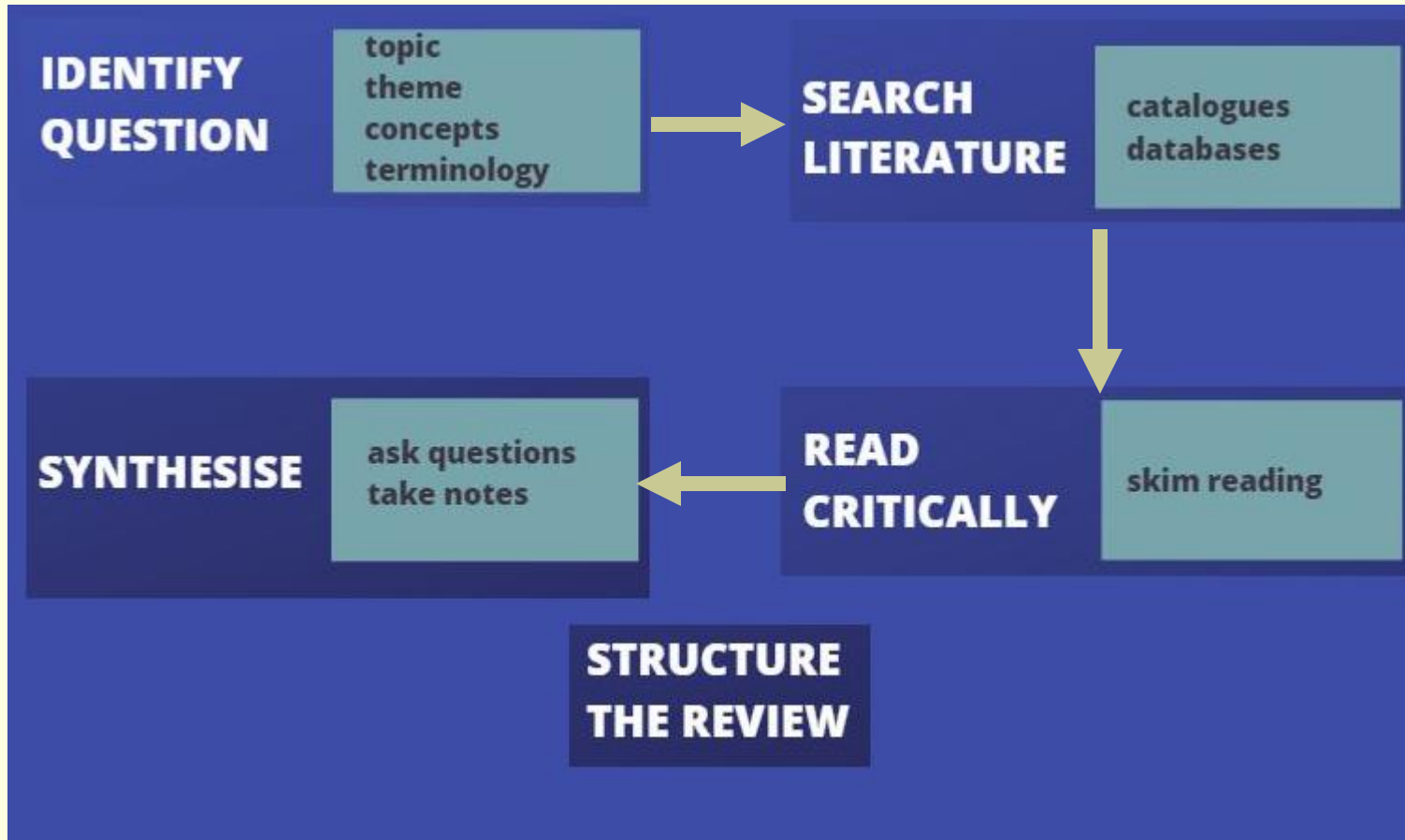
5 major themes to be covered

Concluding sentence - specific focus

Example: Introduction

- There is currently much controversy over how nonhuman primates understand the behavior of other animate beings. On the one hand, they might simply attend to and recall the specific actions of others in particular contexts, and therefore, when that context recurs, be able to predict their behavior (Tomasello & Call, 1994, 1997). On the other hand, they might be able to understand something of the goals or intentions of others and thus be able to predict others' behaviors in a host of novel circumstances. Several lines of evidence (e.g., involving processes of social learning; Tomasello, 1997) and a number of anecdotal observations (e.g., Savage-Rumbaugh, 1984) have been adduced on both sides of the question, but few studies directly address the question: Do nonhuman primates understand the intentions of others?

Structure LR



Example structure of LR

Table 1: Structure of literature review

<i>Introduction</i>	
Scope of review – what is included, what is left out and why	
Categories of literature included in the review	
Order of the categories and rationale for that order	

<i>Content</i>	
NPM and public sector reform	} NPM in general ↓
NPM and public sector reform in Central and Eastern Europe	
Autonomy	
Decentralization	
NPM and healthcare reform	} NPM and hospital reform ↓
Autonomy of hospitals	
Decentralization of hospitals	
Theorizing coordination	} Coordination
Coordination and NPM	
Coordination, hospital autonomy and decentralization	

Conclusions

- Summarize the main findings of your review.
- Provide closure.
- Explain “so what?”
- Implications for future research.

OR

- Connections to the current study.

Example: Conclusion

- In summary, although there is some suggestive evidence that chimpanzees may understand others' intentions, there are also negative findings (e.g., Povinelli et al., 1998) and a host of alternative explanations. As a consequence, currently it is not clear whether chimpanzees (or other nonhuman primates) distinguish between intentional and accidental actions performed by others. In contrast, there are several studies indicating that children as young as 14 months of age have some understanding of others' intentions, but the lack of comparative studies makes it difficult to know how children compare to apes. This study is the first to directly compare children, chimpanzees, and orangutans with the use of a nonverbal task in which the subjects were to discriminate between the experimenter's intentional and accidental actions.

Citing Sources

If it's not your own idea (and not common knowledge)—DOCUMENT IT!

- Paraphrase key ideas.
- Use quotations sparingly. (if use direct quote)
- Introduce quotations effectively. (according to.., stated by..)
- Use proper in-text citation to document the source of ideas.
 - Include picture, table etc
- Maintain accurate bibliographic records.
 - example in the references should include the citation info

What are the differences among quoting, paraphrasing, and summarizing?

- **Quotations** must be identical to the original, using a narrow segment of the source. They must match the source document word for word and must be attributed to the original author.
- **Paraphrasing** involves putting a passage from source material into your own words. A paraphrase must also be attributed to the original source. Paraphrased material is usually shorter than the original passage, taking a somewhat broader segment of the source and condensing it slightly.
- **Summarizing** involves putting the main idea(s) into your own words, including only the main point(s). Once again, it is necessary to attribute summarized ideas to the original source. Summaries are significantly shorter than the original and take a broad overview of the source material.

Examples of paraphrasing individual sentences

- *Original:* Her life spanned years of incredible change for women as they gained more rights than ever before.

Paraphrase: She lived through the exciting era of women's liberation.

- *Original:* Giraffes like Acacia leaves and hay, and they can consume 75 pounds of food a day.

Paraphrase: A giraffe can eat up to 75 pounds of Acacia leaves and hay daily.

Examples of paraphrasing individual sentences

- *Original:* Any trip to Italy should include a visit to Tuscany to sample the region's exquisite wines.

Paraphrase: Be sure to make time for a Tuscan wine-tasting experience when visiting Italy.

- *Original:* Symptoms of influenza include fever and nasal congestion.

Paraphrase: A stuffy nose and elevated temperature are signs you may have the flu.

Examples of paraphrasing individual sentences

- *Original:* The price of a resort vacation typically includes meals, tips and equipment rentals, which makes your trip more cost-effective.

Paraphrase: All-inclusive resort vacations can make for an economical trip.

- *Original:* He has tons of stuff to throw away.

Paraphrase: He needs to get rid of a lot of junk.

Citing Sources: Things to Avoid

- Plagiarism
- Irrelevant quotations.
- Un-introduced quotations.

Examples: Citing Sources

- Quoting: Despite pleasant depictions of home life in art, the fact remains that for most Seventeenth-century Dutch women, the home represented a curtailment of some degree of independence. [Art historian Laurinda Dixon writes that “for the majority of women, however, home was a prison, though a prison made bearable by love and approval” \(1995, p. 136 \)](#).
- Paraphrasing: Despite pleasant depictions of home life in art, the fact remains that for most Seventeenth-century Dutch women, the home represented a curtailment of some degree of independence. [Art historian Laurinda Dixon argues that the home actually imprisoned most women. She adds that this prison was made attractive by three things: the prescriptions of doctors of the day against idleness, the praise given diligent housewives, and the romantic ideal based on love and respect \(1995, p. 136\)](#).

5. Revising

How Can I
Fine-tune My Draft?

Some Tips on Revising

- Title: Is my title consistent with the content of my paper?
- Introduction: Do I appropriately introduce my review?
- Thesis: Does my review have a clear claim?
- Body: Is the organization clear? Have I provided headings?
- Topic sentences: Have I clearly indicated the major idea(s) of each paragraph?
- Transitions: Does my writing flow?
- Conclusion: Do I provide sufficient closure? Spelling and Grammar: Are there any major spelling or grammatical mistakes?

Writing a Literature Review: In Summary

- As you read, try to see the “big picture”—your literature review should provide an overview of the state of research.
- Include only those source materials that help you shape your argument. Resist the temptation/wrong to include everything you’ve read!
- Balance summary and analysis as you write.
- Keep in mind your purpose for writing:
 - How will this review benefit readers?
 - How does this review contribute to your study?
- Be meticulous/precise about citations.

Thank You For Joining Us!



Ir. Dr. Ridza Azri Ramlee (PEPC, MIEM)

