

# Writing A Literature Review and Using a Synthesis Matrix

# My professor says I have to write a literature review, what do I do?

Well, to begin, you have to know that when writing a literature review, the goal of the researcher is to determine the current state of knowledge about a particular topic by asking, "What do we know or not know about this issue?" In conducting this type of research, it is imperative to examine several different sources to determine where the knowledge overlaps and where it falls short. A literature review requires a **synthesis** of different subtopics to come to a greater understanding of the state of knowledge on a larger issue. It works very much like a jigsaw puzzle. The individual pieces (arguments) must be put together in order to reveal the whole (state of knowledge).

## So basically I just read the articles and summarize each one separately?

No, a literature review is not a summary. Rather than merely presenting a summary of each source, a literature review should be organized according to each subtopic discussed about the larger topic. For example, one section of a literature review might read "Researcher A suggests that X is true. Researcher B also argues that X is true, but points out that the effects of X may be different from those suggested by Researcher A." It is clear that subtopic X is the main idea covered in these sentences. Researchers A and B agree that X is true, but they disagree on X's effects. There is both agreement and disagreement, but what links the two arguments is the fact that they both concern X.

## This sounds like a lot of information, how can I keep it organized?

Because a literature review is **NOT** a summary of these different sources, it can be very difficult to keep your research organized. It is especially difficult to organize the information in a way that makes the writing process simpler. One way that seems particularly helpful in organizing literature reviews is the **synthesis matrix**. The synthesis matrix is a chart that allows a researcher to sort and categorize the different arguments presented on an issue. Across the top of the chart are the spaces to record sources, and along the side of the chart are the spaces to record the main points of argument on the topic at hand. As you examine your first source, you will work vertically in the column belonging to that source, recording as much information as possible about each significant idea presented in the work. Follow a similar pattern for your following sources. As you find information that relates to your already identified main points, put it in the pertaining row. In your new sources, you will also probably find new main ideas that you need to add to your list at the left. You now have a completed matrix!

As you write your review, you will work horizontally in the row belonging to each point discussed. As you combine the information presented in each row, you will begin to see each section of your paper taking shape. Remember, some of the sources may not cover all of the main ideas listed on the left, but that can be useful also. The gaps on your chart could provide clues about the gaps in the current state of knowledge on your topic.

### CREATING YOUR SYNTHESIS MATRIX

**Topic:** \_\_\_\_\_

It is probably best to begin your chart by labeling the columns both horizontally and vertically. The sample chart below illustrates how to do this.

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Label the columns across the top of your chart with the author's last name or with a few keywords from the title of the work. Then label the sides of the chart with the main ideas that your sources discuss about your topic. As you read each source, make notes in the appropriate column about the information discussed in the work, as shown in the following chart.

**Topic: Women in WWII** 

	Cornelsen	Stewart	Bruley	Scott
Alteration of	- Women accredited the	- WAAC (Women's Army	-Women given equal	- Women born in the 1920's
women's	WASP program for opening	Auxiliary Corp) was 1 <sup>st</sup>	opportunities (p. 223)	found new doors open to them
roles	new doors, challenging	chance for women to serve in	- Women joined workforce as	where they once would have
because of	stereotypes, and proving that	army, given full army status in	a break from the ordinary to	encountered brick walls (p.
WWII	women were as capable as	1943 as WAC (p. 28)	help the war (p. 220)	526)
	men (p. 113)	- Needs of the war were so	- Unconscious decision to	-Even women not directly
	- Women could compete with	great that women's traditional	cross into male-dominated	involved in the war were
	men as equals in the sky	social roles were ignored (p.	roles (p. 221)	changing mentally by being
	because of their exemplary	30)	- Seized these new	challenged to expand their
	performance (p. 116)	- Military women paid well	opportunities to bring about	horizons because of the
	- WASP created opportunities	for the time period and given	change (p. 230)	changing world around them
	for women that had never	benefits if they became		(p. 562)
	previously existed (p. 112)	pregnant (p. 32)		- War also brought intellectual
	- Women's success at flying	- The 1940's brought more		expansion to many people (p.
	aircrafts "marked a pivotal	opportunities to women than		557)
	step towards breaking the	ever before (p. 26)		
	existing gender barrier" (p.			
	112)			
Hardships	- "From the outset male pilots	- Women in the military given	- Women given unskilled	
and	resented women's presence in	extensive physical and mental	labor positions by government	
oppositions	a traditionally male military	tests, but still discriminated	because only seen as	
women	setting" (p. 1113-4)	against, ridiculed, and	temporary workers, therefore	
faced	- "The WASP were routinely	considered inferior to men (p.	no reason to train them (p.	
	assigned inferior planes that	29)	221-2)	
	were later found to have been		- Women given less	
	improperly maintained" (p.		significant work and viewed	
	114)		as less intelligent and	
	- discrimination against		physically able (p. 224)	
	WASP at every level of		-"The Church-Bliss diary	
	military service, women were		reveals how dilution	
	only paid 2/3 of what men		arrangementsensured that	
	were for doing identical tasks		women working in male	
	(p. 114)		preserves were prevented	

	Cornelsen	Stewart	Bruley	Scott
	- "In the belief that women		from achieving any sort of	
	were emotionally and		equality" (p. 230)	
	physically fragile, the military		- more traditionally male jobs	
	questioned women's		resisted the integration of	
	capabilities to fly an aircraft"		women workers, while other	
	(p. 114-5), regardless of their		industries were less	
	training or aptitude		resistant but in most all	
	- WASP's not granted veteran		cases women were considered	
	status until 1979 (p. 115)		temporary workers (p. 221)	
			- Equal pay rarely given to	
			women, even though women	
			did the same work (p. 221)	
			- Women occasionally found	
			their way to positions of	
			importance, but were always	
			treated as inferior (p. 226-8)	
			- After the war, women were	
			the first to be let go because	
			of their temporary status (p.	
			230)	
			- Women in the workforce	
			also faced discrimination from	
			labor unions (p. 226)	
Opposition:		- Women put in untraditional	- Women were not affected	
WWII did		roles during/because of the	because they still remained in	
NOT effect		war, but back to previous	subordinate positions after the	
women		subservient roles after the war	war (p. 217)	
		(p. 35)		

After your chart is complete, notice patterns of information. You may find that your sources, at times, discuss very similar material, or that they sometimes deal with completely different aspects of your topic. These patterns can be useful in creating a thesis statement that can guide your writing and keep you focused as you begin your draft.

### WRITING YOUR REVIEW

Here is an example from the literature review: "World War Two and its Effect on Women." This excerpt synthesizes information without summarizing.

While the articles used in this research agree that women made many advances during the Word War II period, it is crucial to realize that not all these changes were welcomed. In most cases women faced discrimination from just about everyone around them. Women in the workplace were often placed in positions of inferiority or treated as being less physically able to do the same work the men did. Many women were often not trained because they were viewed as temporary employees who were only there for the duration of the war (Bruley, 2003, pp.221-222). Women were very rarely given equal pay as men, even though some of them did the same work. Women in the military faced not only mental abuse but also physical harm from their male counterparts. According to Cornelsen (2005), there were many instances where female aviators were injured or killed due to being made to fly ill-maintained aircrafts or aircrafts that had been sabotaged. (p.114)

The sample above is an excellent example of how to synthesize information adequately. Notice how when transitioning from Bruley to Cornelsen the writer notes not only that the two articles are similar, but also *how* they are similar. The writer goes into detail about Bruley's discussion of women in industry facing discrimination while noting that Stewart deals with prejudice in the military. The author also transitions well between the Bruley article and the Cornelsen article; rather than summarizing, the author draws comparisons between the two articles, giving relevant information and at the same time synthesizing the two works.