# Writing a Synthesis Essay

A synthesis is a written discussion incorporating support from several sources of differing views. This type of writing requires that you examine a variety of sources and identify their relationship to your thesis.

It is a meaningful and insightful connection between different materials by the identification of common themes or traits.

A synthesis essay is to create new knowledge out of existing knowledge and sources.

To combine sources and the writer's position to form a cohesive supported argument, accurately citing the sources.

Synthesis essay format is not that different from an argumentative paper as both use multiple sources to support one position. However, synthetic writing focuses more on the relationships between the references than on making a point. In this aspect, it is closer to a compare and contrast paper.

It is nothing like a reflective or narrative paper, so first-person writing and subjective opinion are not acceptable.

**Types of Synthesis Essay**

**Explanatory synthesis** helps readers make sense of a complicated topic. You don't have to argue a point, just present facts, data, and different perspectives. This type of synthetic writing is common for research papers and scientific articles. Literature review or background sections use explanatory synthesis.

**Argumentative synthesis** supports a controversial position based on the data presented across a variety of sources. It's an argumentative paper with a twist. Aside from listing critical points, you need to consider the relationship between references, especially if the authors support opposing views.

A **review synthesis** paper is a summary of research whose goal is to discover previous findings on the topic. Instead of proving your point based on the sources, you simply examine the ideas presented in those topics. As a rule, a synthesis essay thesis in such a case may simply state that the issue has not been properly discussed yet and requires more research.

## Integrating Source Evidence into Your Writing

Writing in an academic context often entails engaging with the words and ideas of other authors. Therefore, being able to correctly and fluently incorporate and engage with other writers' words and ideas in your own writing is a critical academic skill. There are three main ways to integrate evidence from sources into your writing: quoting, paraphrasing, and summarizing. Each form requires a citation because you are using another person's words and/or ideas. Even if you do not quote directly, but paraphrase source content and express it in your own words, you still must give credit to the original authors for their ideas. Similarly, if you quote someone who says something that is "common knowledge," you still must cite this quotation, as you are using their sentences structure, organizational logic, and/or syntax.

## Integrating Quotations

**WHY:** Using direct quotations in your argument has several benefits:

- Integrating quotations provides direct evidence from reliable sources to support your argument.
- Using the words of credible sources conveys your credibility by showing you have done research into the area you are writing about and consulted relevant and authoritative sources.
- Selecting effective quotations illustrates that you can extract the important aspects of the information and use them effectively in your own argument.

**WHEN:** Be careful not to over-quote. Quotations should be used sparingly because too many quotations can interfere with the flow of ideas and make it seem like you don't have ideas of your own. Paraphrasing can be more effective in some cases.

**So when should you use quotations?**

- If the language of the original source uses the best possible phrasing or imagery, and no paraphrase or summary could be as effective; or
- If the use of language in the quotation is itself the focus of your analysis (*e.g.*, if you are analyzing the author's use of a particular phrasing, imagery, metaphor, or rhetorical strategy).

## How to Integrate Quotations Correctly

Integrating quotations into your writing happens on two levels: argumentative and grammatical. At the argument level, the quotation is being used to illustrate or support a point that you have made, and you will follow it with some analysis, explanation, comment, or interpretation that ties that quote to your argument. ***Never quote and run***: don't leave your reader to determine the relevance of the quotation. A quotation, statistic or bit of data generally does not speak for itself; you must provide context and an explanation for quotations you use. Essentially, you should create a "quotation sandwich" (see **Figure C-1**). Remember the acronym I.C.E. → Introduce – Cite – Explain.

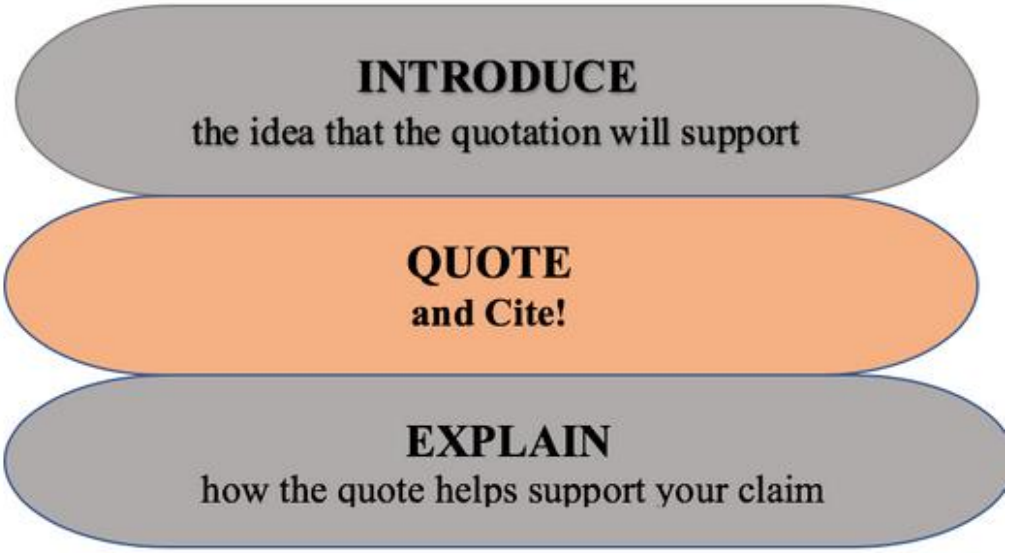


***Figure C-1*** *Quotation sandwich.*

The second level of integration is grammatical. This involves integrating the quotation into your own sentences so that it flows smoothly and fits logically and syntactically. There are three main methods to integrate quotations grammatically:

1. **Seamless Integration Method:** embed the quoted words as if they were an organic part of your sentence (if you read the sentence aloud, your listeners would not know there was a quotation).
2. **Signal Phrase Method:** use a signal phrase (Author + Verb) to introduce the quotation, clearly indicating that the quotation comes from a specific source
3. **Colon Method:** introduce the quotation with a complete sentence ending in a colon.

Consider the following opening sentence (and famous comma splice) from *A Tale of Two Cities* by Charles Dickens, as an example:

*"It was the best of times, it was the worst of times."*
**1. Seamless Integration:** embed the quotation, or excerpts from the quotation, as a seamless part of your sentence

Charles Dickens begins his novel with the paradoxical observation that the eighteenth century was both "the best of times" and "the worst of times" [1].

**2. Signal Phrase:** introduce the author and then the quote using a signal verb (scroll down to see a list of common verbs that signal you are about to quote someone)

Describing the eighteenth century, Charles Dickens observes, "It was the best of times, it was the worst of times" [1].

**3. Colon:** if your own introductory words form a complete sentence, you can use a colon to introduce and set off the quotation. This can give the quotation added emphasis.

Dickens defines the eighteenth century as a time of paradox: "It was the best of times, it was the worst of times" [1].

The eighteenth century was a time of paradox: "It was the best of times, it was the worst of times" [1].

**Editing Quotations**

When you use quotation marks around material, this indicates that you have used the ***exact*** words of the original author. However, sometimes the text you want to quote will not fit grammatically or clearly into your sentence without making some changes. Perhaps you need to replace a pronoun in the quote with the actual noun to make the context clear, or perhaps the verb tense does not fit. There are two key ways to edit a quotation to make it fit grammatically with your own sentence:

- **Use square brackets**: to reflect changes or additions to a quote, place square brackets around any words that you have changed or added.
- **Use ellipses** (3 dots): to show that some text has been removed, use the ellipses. Three dots indicate that some words have been removed from the sentence; 4 dots indicate that a substantial amount of text has been deleted, including the period at the end of a sentence.

**Sample Quotation, Citation, and Reference**

"Engineers are always striving for success, but failure is seldom far from their minds. In the case of Canadian engineers, this focus on potentially catastrophic flaws in a design is rooted in a failure that occurred over a century ago. In 1907 a bridge of enormous proportions collapsed while still under construction in Quebec. Planners expected that when completed, the 1,800-foot main span of the cantilever bridge would set a world record for long-span bridges of all types, many of which had come to be realized at a great price. According to one superstition, a bridge would claim one life for every million dollars spent on it. In fact, by the time the Quebec Bridge would finally be completed, in 1917, almost ninety construction workers would have been killed in the course of building the $25 million structure" [3].

[3] H. Petroski, "The Obligation of an Engineer," in *To Forgive Design*, Boston: Belknap Press, 2014, p. 175.

You are allowed to change the original words, to shorten the quoted material or integrate material grammatically, but only if you signal those changes appropriately with square brackets or ellipses:

**Example 1:** Petroski observed that "[e]ngineers are always striving for success, but failure is seldom far from their minds" [3; p. 175].

**Example 2:** Petroski recounts the story of a large bridge that was constructed at the beginning of the twentieth century in Quebec, saying that "by the time [it was done], in 1917, almost ninety construction workers [were] killed in the course of building the $25 million structure" [3; p. 175].

**Example 3:** "Planners expected that when completed the … bridge would set a world record for long-span bridges of all types" [3; p. 175].

**Integrating Paraphrases and Summaries**

Instead of using direct quotations, you can paraphrase and summarize evidence to integrate it into your argument more succinctly. Both paraphrase and summary requires you to read the

source carefully, understand it, and then rewrite the idea in your own words. Using these forms of integration demonstrates your understanding of the source, because rephrasing requires a good grasp of the core ideas. Paraphrasing and summarizing also makes integrating someone else's ideas into your own sentences and paragraphs a little easier, as you do not have to merge grammar and writing style—you don't need to worry about grammatical integration of someone else's language.

Paraphrase and summary differ in that paraphrases focuses on a smaller, specific section of text that when paraphrased may be close to the length of the original. Summaries, on the other hand, are condensations of large chunks of text, so they are much shorter than the original and capture only the main ideas.

**Sample Paraphrase**

At the end of its construction, the large cantilever bridge cost $25 million dollars, but the cost in lives lost far exceeded the prediction of one death for each million spent. While the planners hoped that the bridge would set a global record, in fact its claim to fame was much more grim [3].

**Sample Summary**

According to Petroski, a large bridge built in Quebec during the early part of the twentieth century claimed the lives of dozens of workers during its construction. The collapse of the bridge early in its construction represented a pivotal design failure for Canadian engineers that shaped the profession [3].

Regardless of whether you are quoting, paraphrasing or summarizing, you must cite your source any time you use someone else's intellectual property—whether in the form of words, ideas, language structures, images, statistics, data, or formulas—in your document.

## Using Signal Verbs

Verbs like ""says," "writes" or "discusses" tend to be commonly over-used to signal a quotation and are rather vague. In very informal situations, people use "talks about" (avoid "talks about" in formal writing). These verbs, however, do not provide much information about the *rhetorical purpose* of the author.

The list of signal verbs below offers suggestions for introducing quoted, paraphrased, and summarized material that convey more information than verbs like "says" or "writes" or "discusses." When choosing a signal verb, try to indicate the author's rhetorical purpose: what is the author ***doing*** in the quoted passage? Is the author *describing* something? *Explaining* something? *Arguing*? *Giving examples? Estimating? Recommending? Warning*? *Urging?* Be sure the verb you choose accurately represents the intention of the source text. For example, don't use "concedes" if the writer isn't actually conceding a point. Look up any words you don't know and add ones that you like to use.

Table C.1 Commonly used signal verbs

| Making a claim | Recommending | Disagreeing or Questioning | Showing | Expressing Agreement | Additional Signal Verbs |
|---|---|---|---|---|---|
| argue | advocate | challenge | illustrates | agree | responds |
| assert | call for | complicate | conveys | admire | assumes |
| believe | demand | criticize | reveals | endorse | speculates |
| claim | encourage | qualify | demon-strates | support | debates |
| emphasize | exhort | counter | proposes | affirm | estimates |
| insist | implore | contradict | points out | corroborate | explains |
| remind | plead | refute | exemplifies | verify | implies |
| suggest | recommend | reject | indicates | reaffirm | uses |
| hypothesize | urge | deny | | | |
| maintains | warn | question | | | |

Be careful with the phrasing after your signal verb. In some cases, you will use the word "that" to join the signal phrase to the quotation:

*Smith argues **that** "bottled water should be banned from campus" [1].*

But not all signal verbs can be followed by "that."

We can use clauses with ***that*** after these verbs related to thinking:

Think I think ***that*** you have an excellent point.
Believe He believes ***that*** unicorns exist.
Expect She expects ***that*** things will get better.
Decide He decided ***that*** it would be best to buy the red car.
Hope I hope ***that*** you know what you are doing.
Know I know ***that*** you will listen carefully
Understand She understood ***that*** this would be complicated.

And after verbs related to saying:

Say She said ***that*** she would be here by 6:00 pm.
Admit He admits ***that*** the study had limitations.
Argue She argues ***that*** bottled water should be banned on campus.
Agree He agrees ***that*** carbon taxes are effective.
Claim They claim ***that*** their methods are valid.
Explain He explained ***that*** the rules are complicated.
Suggest They suggest ***that*** you follow instructions carefully.

But some verbs require an ***object*** (a person or thing) before you can use "that":

Tell tell ***a person*** that… tell ***as story***… tell ***the truth***
Describe describe ***the mechanism***
Convince convince ***an audience*** that you are credible
Persuade persuade ***a reader*** that this is a worthwhile idea
Inform inform ***a colleague*** that their proposal has been accepted
Remind remind ***the client*** that …

Analyze analyze ***a process***; analyze ***a text***; analyze ***the problem***
Summarize summarize ***a text***; summarize ***an idea***
Support I support ***the idea*** that all people are created equal

It would be **incorrect** to write the following:

- The author persuades that …x
- The writers convince that … x
- The speaker expressed that …x
- He analyzes that …x
- She informs that … x
- They described that …x
- I support that … x

**Integrating Quotations Exercise**

Using the following excerpt from William Zinsser's "Simplicity" (available online: http://www.geo.umass.edu/faculty/wclement/Writing/zinsser.html ), practice the three integration methods.

> "But the secret of good writing is to strip every sentence to its cleanest components. Every word that serves no function, every long word that could be a short word, every adverb which carries the same meaning that is already in the verb, every passive construction that leaves the reader unsure of who is doing what - these are the thousand and one adulterants that weaken the strength of a sentence. And they usually occur, ironically, in proportion to education and rank." (Zinsser, 1980)

Integrate portions of this quotation correctly and effectively into your own sentences. If you want to leave out or change words slightly to fit your sentence structure, make sure to follow the rules (using ellipses and square brackets). Also, make sure you are saying something interesting and useful about the words you are quoting (don't just write "Zinsser says "insert quote") – make sure your sentence expresses your **own** idea, and use the quotations to support or develop your idea.

Write your sentences below, using each of the three methods:

1. **Seamless Integration**

2. **Signal Phrase**

3. **Introduce with a Colon**

W. Zinsser. "Simplicity" [Online]. (Originally published in *On Writing Well: An Informal Guide to Writing Nonfiction*. New York: Harper & Row, 1980)
Available: http://www.geo.umass.edu/faculty/wclement/Writing/zinsser.html

# EXERCISE

Directions: The following prompt is based on the accompanying six sources. This question requires you to integrate a variety of sources into a coherent, well-written essay. Refer to the sources to support your position; avoid mere paraphrase or summary. Your argument should be central; the sources should support this argument.
Remember to attribute both direct and indirect citations.

**Introduction**

Television has been influential in United States presidential elections since the 1960's. But just what is this influence, and how has it affected who is elected? Has it made elections fairer and more accessible, or has it moved candidates from pursuing issues to pursuing image?

**Assignment**

Read the following sources (including any introductory information) carefully. Then, in an essay that synthesizes at least three of the sources for support, take a position that defends, challenges, or qualifies the claim that television has had a positive impact on presidential elections.
Refer to the sources as Source A, Source B, etc.; titles are included for your convenience.
Source A (Campbell)
Source B (Hart and Triece)
Source C (Menand)
Source D (Chart)
Source E (Ranney)
Source F (Koppel)

**Source A**
**Campbell, Angus. "Has Television Reshaped Politics? " In Encyclopedia of Television / Museum of Broadcast Communications, vol. 1, ed. Horace Newcomb. New York: Fitzroy Dearborn, 2005.**

*The following passage is excerpted from an article about television's impact on politics.*
The advent of television in the late 1940's gave rise to the belief that a new era was opening in public communication. As Frank Stanton, president of the Columbia Broadcasting System, put it: "Not even the sky is the limit." One of the great contributions expected of television lay in its presumed capacity to inform and stimulate the political interests of the American electorate.

"Television, with its penetration, its wide geographic distribution and impact, provides a new, direct, and sensitive link between Washington and the people," said Dr. Stanton. "The people have once more become the nation, as they have not been since the days when we were small enough each to know his elected representative. As we grew, we lost this feeling of direct contact—television has now restored it."

As time has passed, events have seemed to give substance to this expectation. The televising of important congressional hearings, the national nominating conventions, and most recently the Nixon-Kennedy and other debates have appeared to make a novel contribution to the political life of the nation. Large segments of the public have been given a new, immediate contact with political events. Television has appeared to be fulfilling its early promise.

**Source B**
**Hart, Roderick P., and Mary Triece, "U.S. Presidency and Television." Available at http://www.museum.tv/debateweb/html/equalizer/essay_usprestv.htm.**

*The following passage is excerpted from an online article that provides a timeline of major events when television and the presidency have intersected.*

April 20, 1992: Not a historic date perhaps, but a suggestive one. It was on this date [while campaigning for President] that Bill Clinton discussed his underwear with the American people (briefs, not boxers, as it turned out). Why would the leader of the free world unburden himself like this? Why not? In television's increasingly postmodern world, all texts—serious and sophomoric—swirl together in the same discontinuous field of experience. To be sure, Mr. Clinton made his disclosure because he had been asked to do so by a member of the MTV generation, not because he felt a sudden need to purge himself. But in doing so Clinton exposed several rules connected to the new phenomenology of politics: (1) because of television's celebrity system, Presidents are losing their distinctiveness as social actors and hence are often judged by standards formerly used to assess rock singers and movie stars; (2) because of television's sense of intimacy, the American people feel they know their Presidents as persons and hence no longer feel the need for party guidance; (3) because of the medium's archly cynical worldview, those who watch politics on television are increasingly turning away from the policy sphere, years of hyper familiarity having finally bred contempt for politics itself.

**Source C**
**Menand, Louis, "Masters of the Matrix: Kennedy, Nixon, and the Culture of the Image." The New Yorker, January 5, 2004.**

The following passage is excerpted from a weekly literary and cultural magazine. Holding a presidential election today without a television debate would seem almost undemocratic, as though voters were being cheated by the omission of some relevant test, some necessary submission to mass scrutiny.

That's not what many people thought at the time of the first debates. Theodore H. White, who subscribed fully to [John F.] Kennedy's view that the debates had made the difference in the election, complained, in The Making of the President 1960, that television had dumbed down the issues by forcing the candidates to respond to questions instantaneously. . . . He also believed that Kennedy's "victory" in the debates was largely a triumph of image over content. People who listened to the debates on the radio, White pointed out, scored it a draw; people who watched it thought that, except in the third debate, Kennedy had crushed [Richard M.] Nixon. (This little statistic has been repeated many times as proof of the distorting effects of television. Why not the distorting effects of radio? It also may be that people whose medium of choice or opportunity in 1960 was radio tended to fit a Nixon rather than a Kennedy demographic.) White thought that Kennedy benefited because his image on television was "crisp"; Nixon's—light-colored suit, wrong makeup, bad posture—was "fuzzed." "In 1960 television had won the nation away from sound to images," he concluded, "and that was that." . . . "Our national politics has become a competition for images or between images, rather

than between ideals," [one commentator] concluded. "An effective President must be every year more concerned with projecting images of himself."

**Source D**
**Adapted from Nielsen Tunes into Politics: Tracking the Presidential Election Years (1960-1992). New York: Nielsen Media Research, 1994**

TELEVISION RATINGS FOR PRESIDENTIAL DEBATES: 1960-1996

| Year | Networks | Candidates | Date | Rating | Homes (millions) | People (millions) |
|---|---|---|---|---|---|---|
| 1960 | ABC<br>CBS<br>NBC | Kennedy-Nixon | Sept. 26 | 59.5 | 28.1 | N/A |
| 1964<br>1968<br>1972 | NO DEBATES | | | | | |
| 1976 | ABC<br>CBS<br>NBC | Carter-Ford | Oct. 6 | 52.4 | 37.3 | 63.9 |
| 1980 | ABC<br>CBS<br>NBC | Anderson-Carter-Reagan | Oct. 28 | 58.9 | 45.8 | 80.6 |
| 1984 | ABC<br>CBS<br>NBC | Mondale-Reagan | Oct. 7 | 45.3 | 38.5 | 65.1 |

| | | | | | | |
|---|---|---|---|---|---|---|
| 1988 | ABC<br>CBS<br>NBC | Bush-<br>Dukakis | Sept. 25 | 36.8 | 33.3 | 65.1 |
| 1992 | ABC<br>NBC<br>CNN | Bush-<br>Clinton-<br>Perot | Oct. 11 | 38.3 | 35.7 | 62.4 |
| 1996 | ABC<br>CBS<br>NBC<br>CNN<br>FOX | Clinton-<br>Dole | Oct. 6 | 31.6 | 30.6 | 46.1 |

**Source E**
**Ranney, Austin, Channels of Power: The Impact of Television on American Politics. New York: Basic Books, 1983.**

*The following passage is taken from a book that examines the relationship between politics in the United States and television.*
In early 1968 [when President Lyndon Johnson was running for reelection], after five years of steadily increasing American commitment of troops and arms to the war in Vietnam, President Johnson was still holding fast to the policy that the war could and must be won. However, his favorite television newsman, CBS's Walter Cronkite, became increasingly skeptical about the stream of official statements from Washington and Saigon that claimed we were winning the war. So Cronkite decided to go to Vietnam and see for himself. When he returned, he broadcast a special report to the nation, which Lyndon Johnson watched. Cronkite reported that the war had become a bloody stalemate and that military victory was not in the cards. He concluded: "It is increasingly clear to this reporter that the only rational way out . . . will be to negotiate, not as victors, but as an honorable people who lived up to their pledge to defend democracy, and did the best they could."
On hearing Cronkite's verdict, the President turned to his aides and said, "It's all over." Johnson was a great believer in public opinion polls, and he knew that a recent poll had shown that the American people trusted Walter Cronkite more than any other American to "tell it the way it is." Moreover, Johnson himself liked and respected Cronkite more than any other newsman. As Johnson's aide Bill Moyers put it later, "We always knew . . . that Cronkite had more authority with the American people than anyone else. It was Johnson's instinct that Cronkite was it." So if Walter Cronkite thought that the war was hopeless, the American people would think so too, and the only thing left was to wind it down. A few weeks after Cronkite's broadcast Johnson, in a famous broadcast of his own, announced that he was ending the air and naval bombardment in most of Vietnam—and that he would not run for another term as President.

**Source F**
**Koppel, Ted. Off Camera: Private Thoughts Made Public. New York: Vintage Books, 2001.**

**The following reflections come from the printed journal of Ted Koppel, a newscaster who is best known for appearing on the news show Nightline.**
All of us in commercial television are confronted by a difficult choice that

commercialism imposes. Do we deliberately aim for the lowest common denominator, thereby assuring ourselves of the largest possible audience but producing nothing but cotton candy for the mind, or do we tackle the difficult subjects as creatively as we can, knowing that we may lose much of the mass audience? The good news is that even those aiming low these days are failing, more often than not, to get good ratings.

It is after midnight and we have just finished our Nightline program on the first Republican presidential "debate" involving all of the candidates. . . .

It is a joke to call an event like the one that transpired tonight a debate. Two reporters sat and asked questions of one of the candidates after another. Each man was supposed to answer only the question he was asked, and was given a minute and thirty seconds in which to do so. Since the next candidate would then be asked another question altogether, it was an act of rhetorical contortion for one man to address himself to what one of his rivals had said. . . .

Because we were able to pull the best three or four minutes out of the ninety- minute event, Nightline made the whole thing look pretty good. That's the ultimate irony.

## CITING AND DOCUMENTING SOURCES IN IEEE STYLE

Citing and documenting your sources is a critical component of using research in your writing. It gives credit to the experts upon whom you have built your argument. From an ethical standpoint, citing correctly, accurately, and thoroughly strengthens your credibility and the validity of your ideas.

### 1. What is IEEE Style and why do I need to use it?

The Institute of Electrical and Electronics Engineers (IEEE) Style is one of many systems for referencing (citing and documenting) sources that you have quoted, paraphrased, or summarized in your documents or presentations. Different disciplines use different styles, as they suit the needs of their users. For example,

- Engineering generally uses IEEE or APA Style
- Social Sciences generally use APA
- Humanities disciplines often use MLA or Chicago Style
- The Sciences generally use CSE.

IEEE is the generally accepted format for writing research papers and reports in technical fields, particularly in computer science. You should always confirm with your instructors which format they expect you to use.