

Argumentative Writing and Using Evidence

Many essays or academic papers involve argumentative writing. Argumentative writing goes beyond the standard argumentative essays and is important when convincing your readers of your thesis statement.

Argumentative writing in some form is done in every discipline and involves presenting facts along with rational or logical statements to support your claim. With argumentative writing, you must support your claim with applicable and appropriate evidence. Additionally, argumentative writing has a tone of impartiality and directness while each piece of evidence you present has a specific purpose to support your argument. When providing evidence, you should avoid biased or subjective statements that would detract from the logic of your argument.

Argumentative vs. Persuasive Writing

Argumentative writing aligns with a stance but does not intend to persuade the audience to make an emotional decision. Argumentative writing is collecting and presenting evidence, allowing the reader to make an informed decision regarding the topic. A persuasive essay will frequently use examples or rhetoric that will elicit an emotional response. For example, the following argument, or thesis, uses persuasive tactics: *“The government should invest in healthy lunches for impoverished children at school to improve their lives and academic performance.”* On the other hand, the following argument is more impartial, thus appropriate for argumentative writing: *“Providing children with healthy lunches at school can help close the achievement gap between children of different socioeconomic backgrounds.”* A persuasive essay will frequently use examples or rhetoric that will elicit an emotional response.

Argument and Thesis

Your thesis must be supported by strong arguments that you can then support with credible evidence. The basic way to think about your thesis and arguments is the formula “claim + reasons.” A claim by itself is not an argumentative thesis—you need to put forth your reasons as well. You can think of your paper as a house: the thesis statement is the shape of the house, the arguments are its structure, and the evidence is the building materials. Be careful of what you use to support your claims, and choose your evidence purposefully.

Evidence and Sources

The evidence you use will vary depending on your class or field of study. Regardless, the credibility of the source is essential to your argument. It’s never enough to state your claim and not back it up with evidence. You must provide evidence to support your argument. The different types of evidence you can use are explored below.

Scholarly Books, Articles, and Journals

Most disciplines use scholarly books and articles to present research, provide more context, and explain previous arguments. Since these are secondary sources, you need to consider who did the research, where, when, why, and how. For example, if you are doing research on pesticides, be aware of potential conflicts of interest from sources funded by agrobusiness, which would be biased, or research done in the 1960s, which would be outdated. In general, when using these sources as support in argumentative writing, you'll use fewer quotes and more paraphrasing.

Statistics

For STEM papers, statistics are crucial for convincing your audience to take your claims seriously. For example, if the research involved testing the safety of drinking water at a university, you would need data regarding the level of contaminants relative to FDA recommended standards in water. Often, statistical data will be presented in tables, charts, or graphs, depending on the amount of data or the visualization of it.

First-Hand Research

In many disciplines, you might do a study that can include surveys, interviews, or data analysis. For example, if the claim is that daylight savings time negatively affects students' sleep patterns, you would conduct qualitative research with interviews. The responses might then be run through a data analysis program, and thus, both the participants' responses and the statistical results would be your evidence.

Literary Texts

Fiction and poetry are subjective, and forming an argument with quotes, scenes, and motifs is not always straightforward. Thus, your interpretation will need to be supported by enough specific evidence and examples. In a literary analysis, the type of evidence usually concerns the text of the book or poem. Occasionally, you might reference historical context, especially in regard to the writer. Choosing your quotes is important; each quote should have a purpose, and especially in literary analysis, you should quote the author because you can't change what they wrote without changing the meaning. Keep in mind that when analyzing literature, that there can be many interpretations of the same passage of text. However, that is where the argumentative writing aspect comes into play.

Primary Sources

Primary sources are frequently used when doing historical research and can include diaries, letters, newspapers, and official documents. When considering what primary sources to use, you also have to consider who wrote it, when, where, and why. If you're doing research on the Harlem Renaissance in New York, keep in mind that credibility might be lacking in an account from a newspaper article written in San Francisco, California.

Prompt and Evidence

When given an essay prompt, it is important to consider what evidence would best support your claim. Different disciplines expect different sources, but they all share a common need for evidential support backing their arguments.

Review the examples below for details about the type of evidence you could use for different types of writing prompts.

Sample Prompt: Analyze the meaning of “The Road Not Taken” by Robert Frost.

Sample Claim: Robert Frost’s famous poem, “The Road Not Taken,” is widely misunderstood due to the misinterpretation of its last stanza. Instead of the common interpretation—having pride for being a trail-blazer—the poem describes a person justifying their past decisions to make them seem more important.

Evidence: “Two roads diverged in a wood, and I— / I took the one less traveled by, / And that has made all the difference” (Frost, lines 18-20).

Why?: These are the last three lines of the poem that are frequently quoted, and many people think that they reflect the meaning of the whole poem. This quote provides the necessary context to use later to disprove that idea.

Evidence: “Though as for that the passing there / Had worn them really about the same, / And both that morning equally lay / In leaves no step had trodden black” (Frost, lines 9-12).

Why?: When the person first came across the two roads, they say that they look “about the same” and that there was no visible evidence that anyone had walked on either road recently. This contradicts the statement that the person makes at the end of the poem that they knew that one road was less traveled.

For STEM fields, your evidence should mostly involve statistics, experiments, and studies. The following example about public school lunches offers some possible sources to use as evidence and explains why they were chosen.

Sample Prompt: How can food health and diet improve in the United States?

Sample Claim: Providing children with healthy lunches at school can help close the achievement gap between children of different socioeconomic backgrounds.

Evidence: A study done examining California public schools found that student test score increases are approximately 40% larger for children who qualify for free or reduced-price school lunches.

Why?: The study measured the effect of healthier public school lunches on end-of-year test scores from 2008 to 2013, which included roughly 9,700 schools in California. The quality of the school lunches was determined by using the Healthy Eating Index.

Evidence: A study of New York middle schools found that by extending school lunches to all students, regardless of family income, test scores increased by 0.083 standard deviations in math and 0.059 in English Language Arts for non-poor students, and, though smaller, statistically significant effects of 0.032 in math and 0.027 standard deviations English Language Arts for poor students.

Why?: This source is an article from 2020 published by the Association for Public Policy Analysis and Management. Even though it only looks at New York, there were enough schools involved to be credible.

Evidence: In 2021, a systematic review of 47 studies found that overall, most found universal free school meals that included free lunch had positive effects on academic performance, food security, and diet quality.

Why?: A systematic review done in 2021 is helpful to understand the scope that the subject has been studied previously. The review also used the Newcastle-Ottawa Scale (NOS) to assess bias.

Activity

For this activity, look at the claim and possible evidence provided. Choose the evidence from the list that doesn't strengthen the argument.

Claim: Trains were one of the most important inventions for America's advancement during the Gilded Age.

Evidence:

1. Raw materials and resources from across the country could be brought to the factories faster and more efficiently with railroads.
2. During the Civil War, over 30,000 miles of railroads tracks were built which helped usher in the Gilded Age of the 1870s.
3. Railroads made it possible for people to travel more quickly and affordably, helping to spread ideas and giving the average person more freedom to find better opportunities.
4. With the railroads, towns and cities had to set their clocks the same, allowing for efficiency and cohesion in terms of trade and communication.
5. People's health improved because railroads, especially refrigerator rail cars, could bring fresh fruit, vegetables, and meat to cities faster without spoiling.
6. After the Great Railroad Strike of 1877, which lasted for almost two months and killed 100 people, labor unions became more organized, and the federal government created the National Guard to stop any future civil unrest.

Answer Key

The possible evidence presented in numbers two and six do not strengthen the argument. Number two might be helpful for background information, but it does not help prove the claim

that trains were an important invention. Number six is an example of how railroads, specifically railroad workers, influenced the labor movement. Unless part of your argument is that trade unions are part of America's advancement, then this piece of evidence would be better suited for a different argument.

References

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